School of Public Health

A randomised comparison trial to evaluate an in-home parent-directed drug education intervention

Shelley Ellen Beatty

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When I began this amazing journey my youngest son was two years old and when I submitted this thesis he was almost eight. It would not have been possible without the enduring personal and logistical support from both my husband Christopher Beatty and my mother, Dorothy Fitzgerald. I am also eternally grateful to my Supervisor, Dr Donna Cross, without whose belief in me, appreciation of my circumstances and considerable research expertise, I don’t believe I would have got this far. Finally, special thanks to Jack Beatty and Michael Beatty for being my ‘raison d’etre’.
Foreword

This research was conducted in the Western Australian Centre for Health Promotion Research at Curtin University of Technology in Western Australia. This thesis addresses the development, implementation and evaluation of an educational intervention for parents.

This thesis contains no material that has been accepted for the award of any other degree or diploma in any university. To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgment has been made.
Abstract

The long-term regular use of tobacco and hazardous alcohol use are responsible for significant mortality and morbidity as well as social and economic harm in Australia each year. There is consensus in the literature that while treatment responses are necessary the more cost-efficient primary prevention strategies are equally, if not more important. Youth have been identified as an important primary prevention target group in public health initiatives designed to reduce drug-related harm. Strengthening parents' capacity to reduce children's risk of alcohol, tobacco and other drug-related harm is also recognised as an important strategy. The first chapter of this thesis introduces this public health issue, provides a summary of the present state of play regarding parent-training intervention research, and presents the research hypotheses.

A comprehensive review of the epidemiological, empirical, and theoretical literature pertaining to this research is presented in Chapter 2. Recreational alcohol, tobacco and other drug (ATOD) use results in some 23,000 deaths (representing around 18% of all deaths) and the premature loss of some 160,000 person-years of life each year in Australia. The social consequences have been estimated to cost the Australian community almost $19 billion annually. The prevalence of young people in these data is also cause for concern. In Western Australia (WA), nearly one third of the alcohol-related deaths in the period 1993-1995 occurred in people aged less than 25 years. In 1995 in WA, alcohol use was responsible for almost two thirds of all drug-related deaths in those aged 15-34 years. Furthermore, road crashes accounted for almost half (45%) of the deaths among those aged under 25 years in WA and alcohol was a leading factor in these crashes.

There is agreement that the use of ATODs is a learned behaviour and therefore broad-based psychosocial theories offer the most promising explanation for its onset. Recent research addressing adolescent ATOD-use initiation has focused on the concepts of adolescent vulnerability and resilience. This Social Development Model identifies
several social factors that are posited to predict or be protective of ATOD use (and other hazardous behaviours) during childhood and adolescence.

While parents are not the only social influence on children, they provide the primary social learning environment for children and as such, can play an important role in whether or not their children initiate ATOD use. Four major groups of parenting risk and protective factors are evident from the literature. These include parental modelling of ATOD use, the normative standards parents set regarding ATOD use, their parenting style and family management techniques, and the nature of parent-child communication.

The provision of skills training consistent with the concepts of ‘authoritative parenting’ is supported in the literature as a means to reduce the likelihood of children engaging in hazardous behaviours. Such training is promoted as being an effective and enduring strategy for reducing youth behaviours, such as regular use of tobacco and hazardous use of alcohol and/or other drugs, that have the potential to cause substantial health, social, and financial harm.

Few ATOD programs focussing on parenting skills (particularly parent-child communication) were found to have been subjected to rigorous efficacy or effectiveness studies. Of those subjected to empirical investigation, most were constrained by methodological shortcomings and/or difficulties in recruiting and maintaining substantial parent participation. Seeking ways to recruit and engage a high percentage of Australian parents in such a program is an important area for investigation because, while they may be difficult to reach, parents have persuasive and powerful influences on children’s health behaviour.

Potential predictors of parental participation were identified in the literature and a consultation process with parents was undertaken to determine their needs and preferences as well as strategies to recruit and engage a greater proportion of parents. The methodology of this research therefore comprised a small Exploratory Study followed by a larger efficacy trial. The Exploratory Study involved consultation with
eight small groups of parents regarding the design and content of an ATOD educational intervention. The methodology of this consultation is presented in detail in Chapter 3. A questionnaire and structured group discussions of parents’ responses were used to collect quantitative and qualitative data regarding their opinions and preferences regarding the frequency, intensity, time and type of an ATOD-related educational intervention.

The results of the consultation with parents and a concurrent discussion of how each finding relates to previous research are presented in Chapter 4. Of the 213 parents/guardians invited, 110 responded, of which 72 indicated they would attend one of the discussion groups. While the attendance at the discussion groups was very low (response rate of 24% n=51), the total number of parents consulted exceeded or was equivalent to similar formative research.

Parents reported they worry about the potential harm associated with ATOD use by children and probably underestimate their own children’s vulnerability and ATOD-use experiences. They wanted to be involved in the planning phases of parent-oriented ATOD-related educational interventions. Parents also identified numerous barriers for their participation in educational programs. They identified flexibility and convenience regarding intervention delivery as being essential and preferred interventions to be home-based. The parents reported that any intervention directed at parents should be supported by parents, non-judgemental, simple, time-efficient, easy to use, fun, colourful and interactive. Parents recommended that practical communication skills (such as how to talk with children, how to raise the topic and what topics to talk about) be addressed in the intervention. Parents also recommended a range and combination of strategies to promote and maintain parent involvement, such as rewarding children of parents who participate.

The second part of this research involved merging the exploratory data with information from previous similar research to develop a drug-related educational intervention for parents. A parent-directed ATOD educational intervention, designed to assist parents to
talk with their Year 6 children about smoking cigarettes and drinking alcohol, was
developed and implemented. Its feasibility and impact on parent-child drug-related
communication were evaluated in a randomised comparison trial. The methods utilised
in this trial are detailed in Chapter 5.

Seven data collection instruments were developed and standardised data collection
procedures were established. Demographic, process and impact data were collected.
Schools were randomly selected and randomly assigned to one of three study conditions.
Parents were recruited from schools. Intervention-group 1 was given a choice of learn-
at-home drug education materials and Intervention-group 2 received learn-at-home drug
education materials but were not given a choice. The Comparison-group parents were
not exposed to the intervention.

Completeness of the dissemination and implementation of the intervention were
assessed, as were dose-response effects. Validity analyses of the parent-directed
intervention indicated that the theoretical domains were adequately covered and the
messages intended for parents were unambiguous. The student and parent
questionnaires were also found to be valid and reliable.

Data were obtained from 69.1% (n=830) and 24.5% (n=294) of the study sample
(n=1201) at the first and second follow-ups respectively. Sample parents were
successfully identified at both follow-ups and parent-child communication data were
accurately matched (Chapter 6).

At the first follow-up parents in Intervention-group 1 were more likely than parents in
the Comparison Group, to have ever talked with their Year 6 child about smoking
cigarettes; talked more recently; reported high parent-child engagement during such
communication; and to have talked about more of the four specified tobacco-related
topics in the two weeks prior to data collection. In addition, there were positive dose-
response relationships for these dependent variables. While there were no significant
differences between study conditions (Intervention-group 2 versus Comparison Group
was marginally significant) regarding the duration of the last parent-child discussion about smoking cigarettes, there were positive dose-response effects.

Likewise, compared to Comparison-group parents, those in Intervention-groups 1 and 2 were more likely to have ever talked with their Year 6 child about drinking alcohol at the first follow-up. Compared to Comparison-group parents, those in Intervention-group 1 were also more likely to have talked with their Year 6 children more recently about drinking alcohol. Parents in both of the Intervention Groups were more likely than parents in the Comparison Group, to have reported: talking about drinking alcohol for a longer duration; having higher parent-child engagement during such communication; and talking about more of the three nominated alcohol-related topics. Additionally, there were positive dose-response relationships for the alcohol-related dependent variables. Furthermore, while dose-response effects were evident between the high and/or middle intervention-dose categories and the low-dose category, there were no differences between the middle and high categories for any of the dependent tobacco- or alcohol-related dependent variables.

No statistically significant differences were found between the responses of parents who were offered a choice of intervention materials (Intervention-group 1) and those who were not (Intervention-group 2). The overall agreement between parents and their children to equivalent parent-child communication variables, at both baseline and first follow-up was low. Furthermore, the range of parent-child agreement between the items varied considerably. At the first follow-up, however, there appeared to be slightly increased levels of agreement between Intervention-group parents and their children, than there was between Comparison-group parents and their children.

At the second follow-up the proportion of parents who had talked about none of the specified tobacco-related topics was low but there were no significant differences between the study conditions. There were, however, significant differences in the intended direction between study conditions with regard to how many of the specified alcohol-related topics parents reported discussing with their children.
The likelihood of Type III error appeared to be minimal and indicators of parent and teacher satisfaction with, and the importance they attached to the intervention itself and the dissemination process were very positive.

The findings of this study, discussed in Chapter 7, support the conclusion that parents of 10-11 year-old children are receptive to participating in a home-based drug-related educational intervention. The learn-at-home drug-related educational intervention implemented in this study appeared to have a significant impact on their drug-related communication with their Year 6 children. This study also identified strategies to enhance the recruitment and retention of participants in parent-training interventions, which are challenges inherent in parent-based intervention research.

Despite identified limitations, this intervention appears to be a promising approach in the primary prevention of ATOD-related problems in Australia.
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CHAPTER 1: INTRODUCTION

1.1 Statement of the Problem
Many of the major causes of death and disability in Western societies are associated with behaviour patterns that are generally preventable. The use of alcohol, tobacco and other drugs (ATODs) is responsible for significant mortality and morbidity as well as social and economic harm in Australia each year. Further, it is widely recognised that most health-related behaviours are adopted during childhood and adolescence. In a period of approximately 10 years, young people progress from never having had an unsupervised alcoholic drink, to an age group that comprises the heaviest drinking segment of the population. Likewise cigarette smoking is rare among children aged 10 or 11 years, but each year approximately 70 000 Australian adolescents start smoking during their teenage years. Prevention of ATOD-related harm is clearly more cost-effective than treatment and there is consensus that young people should be a major target group. Further, it is recommended they be targeted before the onset of ATOD-use behaviours.

There is consensus that the use of ATODs is a learned behaviour and therefore broad-based psychosocial theories offer the most promising explanation of the initiation of use by children. Recent research addressing adolescent ATOD-use initiation has focused on the concepts of adolescent vulnerability and resilience. This Social Development Model, identifies several social factors that either predict or are protective of ATOD use (as well as other hazardous behaviours) during childhood and adolescence. For example, family functioning and peer interactions.

There is widespread agreement that schools are an optimal setting for reaching a majority of youth. Traditionally, school ATOD education approaches have concentrated on the individual rather than on his or her social environment. This approach has been criticised for being too narrow. It is currently recommended that school-based ATOD educational strategies be implemented in the context of a whole school approach and utilise a multifaceted strategy.
There are compelling reasons for including a parent component in school-based health promotion programs. Parents and family are part of the primary and most important and influential system to which a child belongs.\textsuperscript{49-53} Health behaviours tend to cluster in families\textsuperscript{9, 54} and families provide the primary social learning environment for children.\textsuperscript{55-58} Strengthening parents’ capacity to reduce children’s risk of ATOD-related harm is supported in the literature as a primary prevention strategy,\textsuperscript{59, 60} and it has been claimed that school-based health promotion programs run the risk of being relatively weak if the parental element is ignored.\textsuperscript{45, 61-63}

While social factors other than those associated with parenting play a role in determining a child’s risk for initiation of ATOD use, there is substantial support in the literature acknowledging parental factors as a powerful influence. The specific role of parents in the initiation of ATOD use by adolescents has been extensively investigated, and four major groups of parenting factors have emerged. That is, parental modelling of ATOD use; the normative standards parents set regarding children’s ATOD use; parenting style and family management techniques; and the manner in which parents communicate with their children.\textsuperscript{17-20, 64, 65} These influences seem to be most effective when they are developed in advance of adolescence.\textsuperscript{59, 66, 67}

1.2 Previous Research

While there is increasing empirical evidence of interventions that enhance the parent-child relationship and other protective parenting skills, especially those associated with hazardous ATOD use by children, many are constrained by methodological shortcomings. Several of the previous parent-directed educational initiatives provide useful information. However, only two interventions were assessed as being methodologically sound and where parental participation resulted in positive effects on parent-child communication about ATOD use.

Past efforts targeting parents have been only partially encouraging due to difficulties in recruiting and maintaining substantial parent participation.\textsuperscript{9, 37, 52, 62, 68-68} While parents
may be difficult to reach, this is an important area for investigation, primarily because of parents' persuasive and powerful influence on children's health behaviour.

Most of the existing parent-oriented intervention research has been conducted in North America and while their results suggest promise for parent training, the Australian experience with the implementation and evaluation of parent education is limited. For example, one recently evaluated parenting intervention in Australia reported positive parenting outcomes. Unfortunately the results were limited by methodological issues. There appears to be a need for rigorous Australian research in the domain of parent-child communication regarding ATODs.

With regard to addressing the challenge of recruiting parents to participate, a potential answer may be related to concepts of choice and control. There is some evidence that the opportunity to choose among alternatives is reinforcing. The underlying assumption being that when people are provided with choice among alternative activities, they may perceive increased control over their options and control is a powerful psychological variable that can influence a variety of outcomes. When people are provided with a choice, they may attribute the motivation for change to themselves and this attribution may influence their liking of the behaviour and the rate of engaging in the behaviour. This approach does not appear to have been tested with parent-based interventions or in a field such as ATOD education.

Moreover, identification of a target group's needs is an important aspect of health promotion planning. Evidence of parent consultation prior to the implementation of parent-oriented ATOD educational interventions, however, is reported to be scarce.

To summarise, there appear to be two international parent-oriented ATOD educational initiatives that have been rigorously and repeatedly evaluated. Furthermore, there appears to be little evidence that a parent-directed drug education initiative, that involves consultation with parents prior to implementation and offers...
parents a choice of content, has been adequately or rigorously evaluated in Australia or elsewhere.

1.3 This Research
This research attempted to investigate the feasibility and impact of using choice to motivate parents to participate in a parent-oriented ATOD-related communication program. The overall aim was to recruit parents of Year 6 students (average age 11 years) to an educational intervention that specifically targeted parent-child communication about drinking alcohol and smoking cigarettes. This research was conducted in two stages. A formative study was used to inform the design and content of an intervention. The aim of the intervention was to assist parents to communicate better with their pre-adolescent children. The subsequent parent communication intervention was implemented and evaluated over a year long period. The feasibility of providing parents with a choice of intervention materials as a means of maximising recruitment rates was also investigated. The impact of the parent-oriented intervention on the frequency, duration and nature of alcohol- and tobacco-related parent-child communication was assessed.

1.4 Definition of Terms
One of the difficulties in ATOD-related research is the interchangeability of terms and clarity of definition of specific terms⁴⁰. The terminology used in this research has therefore been defined in the following glossary.

Parents
The structure of families is reported to be changing and it has been proposed family structure as an entity has greater fluidity and instability than ever before¹⁰⁶, ¹⁰⁷. For the purpose of this research ‘parents’ were defined very broadly to encompass all those adults with responsibility for raising children, whatever their biological relationship to the child, including immediate and extended family members or kin, step-parents, guardians, and/or foster parents⁶⁴, ⁷¹, ¹¹¹, ¹¹².
**Parent-oriented intervention**

For the purposes of this research, a parent-oriented intervention was where one or more parents (as defined above) received information and/or a course of instruction aimed at enhancing their knowledge, attitudes and/or skills regarding effective parent-child communication.\(^{113}\)

**Adolescence**

Adolescence was also defined very broadly in this research. It is a specific stage of development that is difficult to attribute to chronological age. Adolescence is commonly equated with the 'teen' years from 13-19, but its beginning is often defined by biological milestones such as the commencement of puberty that can begin much younger than 13 years of age. Further, the ending of adolescence is often marked by social or psychological milestones such as the successful adaptation to puberty or the achievement of financial independence from parents that may well happen much later than 19 years of age.\(^{111}\)

In Australia, adolescence is to some extent, defined by stages of schooling, where adolescence starts at the beginning of secondary school (12-13 years of age) and ends at the completion of secondary school (16-18 years of age). To complicate the issue further, adolescence is sometimes separated into early, middle and late components in recognition of both the profound developmental differences between a 10 and 20 year old and major contrasts in social and legal contexts.\(^{111}\) The terms, adolescent and teenager are used interchangeably in many publications and likewise for the purposes of this research. This research was conducted in Western Australia with children in Year 6 at primary school who are usually 10-11 years of age.

**Communication**

Communication is a central aspect to all human interaction and can be defined broadly as a shared way of perceiving and comprehending each other that can change itself and develop with the passage of time.\(^{114}\) For the purposes of this research, however, communication was defined in terms of relatively concrete behaviours that were
measurable. That is, recency, duration, extent of engagement and content of the communication.

**Drug use**

For this research, drug use was broadly defined as the consumption of any substance, with the exception of food and water, which when taken into the body alters physiological or psychological functioning\(^{115}\). This research focussed on the use of psychoactive drugs. That is, only drugs that impact on the central nervous system to alter mood, cognition and behaviour\(^{116}\). Alcohol, tobacco and other psychoactive drugs were encompassed within this definition.

**Hazardous drug use**

Similar to previous research, the phrase ‘alcohol, tobacco and other drug’ (ATOD) use did not imply that such use was problematic\(^{117}\). While all psychoactive drug use has the potential for harm, use does not always result in harm. It is widely recognised that while the use of psychoactive drugs cannot be made totally safe, most can be used in low risk ways. In this research, hazardous drug use referred to drug use that was associated with a high risk of harm\(^{115}\).

**Tobacco**

Tobacco use refers to the consumption of any nicotine-containing tobacco product. While the use of smokeless tobacco is common in the US, where most similar research has been conducted\(^{21}\), tobacco use in the Australian context is somewhat different. In Australia, and indeed in this research, the term tobacco use refers only to the smoking of cigarettes and/or cigars.

**Drinking alcohol as a social behaviour**

In the context of this research, drinking alcohol was recognised as a social behaviour, even for young people. This was because drinking is consistently portrayed as normal development in the context of the psychosocial environment in Australia\(^1\). Given that adult alcohol use is widespread in Australia, initiation of use by adolescents was
regarded in this research as a normal transitional behaviour between childhood abstinence and adult drinking\(^1\).

**Alcohol, tobacco and other drug-related harm (ATOD-related harm)**

This research differentiated between ATOD use per se and ATOD-related harm. ATOD-related harm referred to actual problems that arise as a direct or indirect outcome of such use. Such problems can result from one-off or on-going use and may affect the users, their families and/or their communities. ATOD-related harm may manifest itself in the domains of physical, legal, economic, emotional and/or social health\(^1\(^\text{119}\)\).

**Patterns of ATOD use**

In this research, phases of children’s ATOD use was differentiated in terms of the frequency and amount of use. Children’s ATOD experimentation, or sampling, was the focus of this research and was considered different to regular ongoing use\(^1\(^\text{119}\)\). Also termed drug-use initiation, this refers to an individual’s first use of a drug\(^1\(^\text{120}\)\). It is important to differentiate between the behaviours of drug-use initiation, occasional use and regular use since each of these behaviours appear to be predicted by somewhat different etiological pathways\(^1\(^\text{120}\)\).

**Health behaviour and health risk factor**

The terms ‘health behaviour’ and ‘health risk factor’ are often used interchangeably. This research, however, differentiated them and considered health behaviour to be any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting or maintaining health\(^1\(^\text{121}\)\). Health risk factors referred to the social, economic, or biological status or environments that are associated with or cause increased susceptibility to a specific disease, disorder or injury\(^1\(^\text{121}\)\).

**Health promotion and health promoting school**

For the purpose of this research, health promotion was defined as the process of enabling people to increase control over, and to improve their health status\(^1\(^\text{121}\)\). A health-
promoting school was defined as one that constantly strengthens its capacity as a healthy setting for living, learning and working.\textsuperscript{48, 121, 122}

\textbf{Prevention}

In responding to ATOD-related harm, the purpose can be to prevent use (including experimental use), reduce use and/or to encourage lower-risk use.\textsuperscript{95, 164} In this research, the term prevention referred only to those initiatives that occurred before the onset of ATOD-use and aimed to prevent or delay use.

\textbf{Universal health promotion intervention}

Health promotion interventions can be classified as universal, selective or indicated. This research focussed only on universal interventions. That is, interventions that target the general public or a sub-category of the general public, such as parents, who show no signs of experiencing a condition or disease and are not at known risk for experiencing the condition or disease.\textsuperscript{104}

\textbf{Harm minimisation}

The concept of harm minimisation has been the underlying basis of Australia’s drug strategy since the inception of the National Campaign Against Drug Abuse (NCADA) in 1985. This term has been used within and outside Australia with an array of interpretations.\textsuperscript{123} Harm minimisation originally referred only to those policies and programs which attempted to reduce the risk of harm among people who continued to use illicit drugs. Thus the concept of harm minimisation did not include abstinence-oriented approaches or legally available drugs. In Australia, harm minimisation has since come to mean any program and policy aimed at reducing drug-related harm, not just those policies aimed at those who continue to use drugs or those that use illegal drugs.\textsuperscript{118} It is in this more recent context that the term was used in this research.
1.5  Research Hypotheses

The four hypotheses of this study were as follows:

H₀  Parents who participate in the educational intervention report levels of parent-child *tobacco-related* communication that are no different to those in the comparison condition (as measured by, ever talked, recency, duration, extent of engagement and specific content).

H₁  Parents who participate in the educational intervention report levels of parent-child *tobacco-related* communication that are better than those in the comparison condition (as measured by, ever talked, recency, duration, extent of engagement and specific content).

H₀  Parents who participate in the educational intervention report levels of parent-child *alcohol-related* communication that are no different to those in the comparison condition (as measured by, ever talked, recency, duration, extent of engagement and specific content).

H₁  Parents who participate in the educational intervention report levels of parent-child *alcohol-related* communication that are better than those in the comparison condition (as measured by, ever talked, recency, duration, extent of engagement and specific content).

H₀  Parents who are offered a choice of intervention content report levels of communication about alcohol and tobacco with their Year 6 children that are no different to that reported by parents who are offered no choice of content.
H₁ Parents who are offered a choice of intervention content report levels of communication about alcohol and tobacco with their Year 6 children that are better than that reported by parents who are offered no choice of content.

H₀ When compared to those who didn’t participate in the educational intervention, parents who did participate report measures of tobacco- and alcohol-related parent-child communication that are not more similar to that reported by their children.

H₁ When compared to those who didn’t participate in the educational intervention, parents who did participate report measures of tobacco- and alcohol-related parent-child communication that are more similar to that reported by their children.

While changes in both directions were possible, in each of the above hypotheses, change was expected to occur in one direction, (positive change) based on whether or not the parents participate in the intervention. Of the three groups in the study, it was hypothesised that the group given a choice of materials would show more positive change than the group who were not given a choice, and both of these groups would show more positive change than the Comparison Group. Thus the hypotheses are represented by the following equations:

H₀: \( \mu_1 = \mu_2 = \mu_3 \)
H₁: \( \mu_1 > \mu_3, \mu_2 > \mu_3 \)
H₂: \( \mu_1 > \mu_2 > \mu_3 \)

Key: \( \mu_1 \): Population mean InterventionGroup 1 (Choice)  
\( \mu_2 \): Population mean InterventionGroup 1 (No choice)  
\( \mu_3 \): Population mean Comparison Group
1.6 Chapter Summary

This chapter introduced the issue of drug-related harm and highlighted the desirability of prevention. Youth were identified as an important target group for the primary prevention of drug-related harm and the role of schools in this process summarised. The rationale for including parents in school-based health promotion initiatives and the means by which parents are thought to influence children's drug-use behaviours were also summarised. A summary of previous parent-targeted intervention research was provided and their general shortcomings were mentioned. An outline of the methodology of this research was provided and relevant terms defined. Finally, the hypotheses were stated.

As this research consisted of two related studies, Figure 1 was developed to increase clarity for the reader. It appears at the beginning of each chapter with the specific chapter highlighted via shading.

Figure 1: Thesis map

| Chapter 1: Introduction
| Chapter 2: Literature review
| Exploratory Study
| Methods
| Chapter 3: Results and Discussion
| Chapter 4: Randomised Comparison Trial
| Methods
| Chapter 5: Results
| Chapter 6: Discussion, Conclusions and Recommendations
| References
| Appendices |
Chapter 2: LITERATURE REVIEW

2.1 Introduction

To increase their likelihood of being effective, alcohol, tobacco and other drug (ATOD) education and associated health promotion programs should be grounded in behavioural theory and epidemiological and empirical evidence\textsuperscript{111, 124}. This chapter contains a critical examination of published epidemiological, empirical and theoretical evidence relevant to this research.

This review begins with a summary of the extent of ATOD-related harm in Australia. This is followed by information regarding the prevalence of ATOD use and related harm experienced by young people. The rationale for youth-targeted primary prevention of such harm is presented and factors influencing the initiation of ATOD use by adolescents are discussed. The relative influence of parents and peers in this process is examined. Utilising the Health Promoting School Framework as a strategy to access youth with primary prevention initiatives is discussed, as is the role parents can play within this approach. Parents' recognition and appreciation of their role in the primary prevention of ATOD use and related harm is examined. Four major evidence-based groups of parenting factors associated with adolescent use of ATODs are identified and the salience of children's perceptions of parenting are discussed. Finally, empirical evidence related to existing ATOD-related parent training interventions are critically reviewed and the theoretical frameworks of this research are summarised.
2.2 Extent of ATOD-related Harm

Many of the major causes of death and disability in Western societies are preventable\(^2\). The connection between behaviours such as harmful ATOD use, poor nutrition, physical inactivity, unsafe sexual activities and unprotected exposure to the sun, with these preventable diseases, has been overwhelmingly established\(^{122,125}\).

Recreational ATOD use, in particular, is responsible for an enormous burden of harm in Australia resulting in some 23 000 deaths (representing around 18% of all deaths) and the premature loss of some 160 000 person-years of life each year\(^{126}\). The social consequences have been estimated to cost the Australian community almost $19 billion annually\(^{127-129}\).

Contrary to popular opinion, it is the use of legally available drugs that causes the greatest amount of preventable drug-related harm\(^{120}\). Only about four per cent of drug-caused deaths in Australia annually are due to the use of drugs other than alcohol and tobacco\(^{130}\). Indeed, the long-term regular use of tobacco is cited as the single most preventable cause of death in Australia\(^{127,129}\). Likewise, in the US, where the toll of tobacco-related mortality alone prompted the Surgeon General in 1982, to label cigarette smoking the chief, single, avoidable cause of death and the most important public health issue\(^{131}\). Moreover, in 1995, The World Health Organisation (WHO) reported the majority of drug-related harm was caused by the use of licit drugs\(^{132}\).

In Australia, in 1997, long-term regular tobacco use was associated with over four in every five drug-related deaths and almost three in every five drug-related hospital episodes\(^{126}\). The illnesses caused by regular long-term tobacco use increase the demands on the Australian health-care system and the associated lost productivity amounts to billions of dollars annually. The annual economic costs of cigarette smoking alone are enormous. In Australia, the financial cost of smoking-related diseases have recently been estimated to be at least $13 billion each year\(^{22,128,133}\).

Harmful use of alcohol is second only to tobacco in causing drug-related deaths and hospitalisations in Australia where it was estimated that in 1997, there were almost 4000 alcohol-related deaths and just under 100 000 hospital-episodes. Cirrhosis of
the liver, strokes and motor vehicle crashes were the principal causes of this harm\textsuperscript{126}. In the same year in Australia (1997), an estimated 4.4 million people experienced alcohol-related verbal abuse, 1.3 million people experienced alcohol-related property damage, more than 900 000 people experienced alcohol-related physical assaults, and almost 600 000 people were affected by alcohol-related property theft\textsuperscript{126}.

When data trends are examined, a similar picture emerges. In Australia, over the five year period from 1991 to 1996, 19\% of all deaths were due to drug use and on average, there were 23 217 drug-related deaths each year – the majority of which (82\%) were tobacco-related. Alcohol use accounted for 16\% of drug-related deaths and only a minority of deaths (approximately 4\%) was attributed to the use of drugs other than alcohol and tobacco\textsuperscript{127, 134}.

These national data were mirrored locally in Western Australia (WA), where over the 11 year period from 1985 to 1996, there were 22 840 drug-related deaths. This represents 19\% of all deaths in WA during this period and corresponds to an average of 1 903 drug-related deaths in WA each year. Seventy-nine per cent of these deaths were associated with tobacco, 17\% with alcohol and approximately four per cent with the use of drugs other than alcohol and tobacco\textsuperscript{127, 134, 135}.

In terms of morbidity, over the two-year period from 1993 to 1995 in WA, there was an average of 11 746 admissions to hospital, and 82 415 bed days each year caused by the regular long term use of tobacco. The estimated annual bed-day cost for smoking-caused hospitalisation was in excess of $36 million. This represented an average of $21 per head of population in WA during this time period\textsuperscript{134}. Similarly, alcohol-related morbidity, over the same period in WA, resulted in an average of 8 548 admissions to hospital and 58 627 bed-days. Over one quarter of these hospital admissions were people aged less than 25 years indicating that alcohol-use problems experienced by youth represent a significant public health problem. The estimated annual bed-day cost for alcohol-caused hospitalisation was nearly $26 million – an average of $15 per head of population in WA\textsuperscript{100, 136}.

The prevalence of young people in these mortality data is also cause for concern. In WA, nearly one third of the alcohol-related deaths in the above-mentioned period occurred in
people aged less than 25 years\textsuperscript{36}. In 1995 in WA, alcohol use was responsible for almost two thirds of all drug-related deaths in those aged 15-34 years. Furthermore, road crashes accounted for almost half (45\%) of the deaths among those aged under 25 years in WA and alcohol was a leading factor in these crashes\textsuperscript{2}.

These data suggest the regular long-term use of tobacco and the hazardous and harmful use of alcohol pose a serious public health threat in Australia. Adding to this concern is that children appear to be especially vulnerable to the initiation of ATOD use (and other potentially health-compromising behaviours) as they move from childhood into early adolescence\textsuperscript{19, 105, 137}.

2.3 Adolescent Use of ATODs

The use of alcohol is common among adolescents in WA. Most school students aged 12-17 years (90\%) in WA in 1999 had some experience with alcohol with half of 12-year-old school children reporting they had already had their first alcoholic drink\textsuperscript{138}. It has also been reported that, in WA, male and female 14 and 15 year-olds, begin unsupervised drinking on average at 12.6 and 13.3 years of age respectively\textsuperscript{2}.

Drinking alcohol is widely recognised in Australia as an acceptable social behaviour, even for young people, and drinking is consistently portrayed as normal development in the context of the prevailing psychosocial environment\textsuperscript{1}. While the majority of youth who have initiated alcohol use do not progress to compulsive heavy drinking, early initiation of alcohol use appears to be a predictor of subsequent problematic use\textsuperscript{139}. Also, while it would be erroneous to assume that alcohol consumption by young people is hazardous in every instance, in WA in 1999, nearly 40\% of students aged 12 to 17 years drank ‘at risk’ on the day of their heaviest consumption in the last week. That is, they exceeded the recommended daily limits for adults on at least one day in the last week\textsuperscript{138}.

Drinking alcohol at hazardous levels also appears to increase with age. At age 12, six per cent of students who were current drinkers (ie, consumed alcohol in the week prior to the survey) had consumed more than the recommended amount on at least one day in the last week. These figures rise to 33\% of 14 year-olds and 60\% of those aged 17 years\textsuperscript{138}.
Binge alcohol use by adolescents (defined as acute intoxication) is a major social and public health issue\textsuperscript{140}. Twenty-five per cent of 15-16 year-olds in WA, reported having been intoxicated to the point of vomiting, with boys being more likely to have done so on more than one occasion\textsuperscript{2}. Binge drinking by adolescents is reported to be associated with premature mortality, increased risk of injury, aggressive behaviour and assault, vehicle crashes, unplanned and unsafe sexual activity, crime, social misadventure and psychological problems\textsuperscript{2,106,113,140}.

The trends of adolescent drinking are of particular concern. The WA school students' alcohol consumption data collected since 1984 showed a decreasing trend between 1984 and 1993. Data published in 2000, however, indicated this trend appeared to have reversed for most age groups and both genders\textsuperscript{138}.

Like hazardous levels of alcohol use, cigarette smoking by adolescents represents a major public health challenge\textsuperscript{141}. In 1999, in WA, 17% of students aged 12-17 years had smoked in the last week. Among these so-called current smokers, 63% smoked on three or more days a week and 27% smoked daily\textsuperscript{142}. Another concern is that while many adults are trying to cease smoking, many adolescents are initiating the behaviour\textsuperscript{143,144}. Approximately half of all people who smoke appear to have done so on a regular basis, before they reached 18 years of age\textsuperscript{145-147} and the majority (80%-90%) began before the age of 21\textsuperscript{22}. This is of concern because it is reported those who initiate smoking during childhood are less likely to attempt to quit or to succeed in quit attempts\textsuperscript{148,149} and seem more likely to smoke as adults\textsuperscript{2,11,133,149-154}.

Early initiation of ATOD use is associated with future use and the development of ATOD-related problems\textsuperscript{120,155-157}. Children who experience very early onset of smoking (ie, between third and fifth grade at primary school) are at increased risk for progression to regular smoking during adolescence\textsuperscript{158}. Smoking by the age of 11 was consistently shown in one longitudinal study to be the strongest predictor of later smoking\textsuperscript{5}.

While a later age of onset is usually associated with lesser ATOD-use involvement and a greater probability of discontinuation of use\textsuperscript{159,160}, Australian data indicate there
has been a decrease in the age at which cigarettes are first tried. The National Drug Strategy Household Survey conducted in 1995 reported a four per cent increase, since 1993, in the number of children who had tried their first cigarette before 12 years of age\textsuperscript{161}.

The early use of tobacco and alcohol is reported to be the strongest predictor of the progression that some adolescents make to illicit drug use and other potentially health-compromising behaviours\textsuperscript{19, 21, 162, 163}. While this progression is not inevitable adolescents who smoke cigarettes appear to be much more likely to use other drugs than those who don’t, and this likelihood appears to increase with the frequency of cigarette smoking\textsuperscript{19, 162, 164}. It is thought that delaying onset of use of the earliest drugs in the drug-using sequence (ie, alcohol and tobacco) may reduce involvement in illicit drug use\textsuperscript{2, 22, 162, 165-169}. Research investigating the prospective longitudinal relationship between using drugs during early adolescence and dropping out of high school several years later suggested that the frequency of cigarette use by seventh grade was a strong predictor\textsuperscript{168}. This relationship held, even after controlling for covariates such as weak bonds with family and school, inadequate socialisation, poor academic performance and anti-social peers. There also appears to be positive dose-dependent relationships between the smoking behaviour of children and adolescents and the likelihood of hazardous alcohol use\textsuperscript{22}.

2.4 Primary Prevention of ATOD-related Harm

While people do not exist in isolation of environmental influences, the realisation that individuals can influence their own health by changing their lifestyles has altered the way society responds to health-related problems\textsuperscript{170-172}. The public health community has increasingly adopted goals related to the primary prevention of health problems and as a result, recommends behavioural and socio-environmental risk factors be modified\textsuperscript{173}. In Australia, in 1993, the Ministerial Council on Drug Strategy (MCDS) recognised the role that ATOD use plays in acute and chronic morbidity and premature mortality and published a National Drug Strategic Plan. In 1998, the MCDS published an updated National Drug Strategic Framework in which harm minimisation was confirmed as the overall policy goal and the importance of primary prevention strategies targeting youth was emphasised\textsuperscript{174, 175}. 

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In terms of minimising the harm associated with ATOD use, there is consensus that while treatment responses are necessary, the more cost-efficient and less difficult to implement successfully, primary prevention strategies are equally, if not more, important\textsuperscript{2, 16, 22, 24, 71, 105, 163, 168, 176-178}. In addition, the implementation of effective interventions to reduce risk factors and prevent harm holds considerable economic appeal\textsuperscript{20, 71, 179}. In the US, it has been reported that for every $1 spent on the prevention of ATOD-use problems, communities can save $4 to $5 in costs for the treatment of people affected by such problems\textsuperscript{180}. Likewise in WA, the A$296 per capita cost of a primary prevention intervention was reported to be considerably less than the A$1960 for an average course of child and adolescent outpatient treatment\textsuperscript{181}.

With regard to ATOD-use problems, one obvious means of primary prevention is to stop, or delay for as long as possible, children and young adolescents from initiating use. Data from an 11-year prospective longitudinal study suggested that alcohol-dependence and other alcohol-use problems at age 21 may be prevented by delaying alcohol initiation, by reducing current use in middle school and by reducing heavy episodic drinking in high school\textsuperscript{182}. Moreover, the negative outcomes associated with early onset of ATOD use can compromise adolescents’ emotional, social and physical development as well as their immediate and long-term health\textsuperscript{183}. Early experimentation with alcohol, in particular, is related to a broad range of health-compromising behaviours\textsuperscript{184}.

Many of the factors contributing to preventable lifestyle diseases, such as hazardous and harmful patterns of ATOD use, are adopted in the formative years of childhood and adolescence and are difficult to modify in adults\textsuperscript{2, 9, 27, 105, 117, 130, 165, 185, 186}. Targeting children before they reach 11 years of age, prior to experimentation, is widely supported as a salient primary prevention strategy\textsuperscript{1, 5-9, 22, 36, 62, 66, 69, 83, 99, 105, 133, 139, 157, 166, 168, 176, 185, 187-192}.

2.5 Aetiology of ATOD-use Initiation

To plan effective ATOD primary prevention strategies for adolescents, an understanding of the factors associated with their ATOD use is necessary\textsuperscript{166, 193}. Acquisition of these behaviours is predominantly a phenomenon of childhood and
adolescence\textsuperscript{194} and, as such, age is reported as the single most important predictor\textsuperscript{195}. In a period of approximately 10 years, young people change from never having had an unsupervised alcoholic drink, to individuals, who comprise the heaviest drinking segment of the population\textsuperscript{1}. Likewise cigarette smoking is rare among children aged 10 or 11 years but approximately 70,000 Australian adolescents start smoking regularly each year. The decision to smoke appears to be made during the early to mid-teens. In 1996 in WA, smoking by ten-year olds was a very uncommon practice, yet by age 17 many girls (31%) and boys (28%) had smoked in the last seven days\textsuperscript{3,4}.

The question of why children begin to smoke cigarettes and/or consume alcohol or other drugs has received substantial research attention. There have been many theories proposed to explain the initiation of adolescent ATOD-use behaviour, ranging from genetic and personality traits to social, environmental and psychological factors. Most research has investigated the predictors of cigarette smoking. A single theory to explain what prompts such behaviour among children and adolescents, however, does not appear to exist\textsuperscript{22}. It has been postulated that thinking in terms of linear causality is inappropriate, because there seem to be many diverse paths to ATOD use\textsuperscript{66,196}.

There is, however, consensus that ATOD use is a learned behaviour and as such, broad-based psycho-social approaches offer the most promising explanations for the initiation of use by adolescents\textsuperscript{10-15}. Social influences and skills are widely considered to be potent determinants of behaviour\textsuperscript{159,197-200}. Indeed, it has been claimed that social factors comprise the single most important determinant of smoking onset\textsuperscript{192}.

Several of the theories postulated to explain youth ATOD-use initiation have social influence components. They range from Social Learning Theory\textsuperscript{201,202}, Social-Cognitive Theory\textsuperscript{203}, Problem Behaviour Theory\textsuperscript{167,204}, Peer Cluster Theory\textsuperscript{23} to Social Control (or Bonding) Theory\textsuperscript{205}. Recent research has focused on the concepts of adolescent vulnerability and resilience\textsuperscript{16}. Termed the Social Development Model (or Resiliency Theory), this theory of behaviour identifies the role of social
developmental processes in predicting both pro-social and antisocial behavioural outcomes\textsuperscript{17,18}.

The Social Development Model integrates and builds on previous theories such as Social Control/Bonding Theory, Social Learning Theory and Social Cognitive Theory. It identifies several individual and socio-environmental factors are either predictive or protective of ATOD use (as well as other hazardous behaviours) during childhood and adolescence\textsuperscript{19,20}. These risk and protective factors, as they are termed, have been longitudinally confirmed as existing within the social environments of the local community, school, family, church and also the individual characteristics of the adolescent\textsuperscript{17,18}.

Risk factors refer to those conditions that are associated with a higher likelihood of the negative outcome (in this case, hazardous ATOD use)\textsuperscript{206}. Increasing numbers of risk factors and lower numbers of protective factors are related to greater likelihood of ATOD-use initiation\textsuperscript{17, 105, 113, 154, 163, 207, 208}.

At the level of the individual, risk factors found to be empirically reliable predictors of ATOD use by adolescents, include low educational commitment and aspiration, poor school motivation, poor school attendance and academic failure beginning in late primary school. Other research-based individual-level risk factors include low self-esteem, poor social-coping skills, externalisation of behaviour problems, alienation and rebelliousness, early and persistent anti-social behaviour, favourable attitudes towards hazardous behaviours, early experimentation, and having friends who engage in hazardous behaviours\textsuperscript{19,206,209}.

Risk factors at the socio-environmental level encompass ATOD-related laws and cultural norms, ATOD availability, extreme economic deprivation and neighbourhood disorganisation\textsuperscript{163}. A number of family functioning variables such as parenting style and normative standards, have also consistently been associated with hazardous use of ATODs by adolescents\textsuperscript{20,163,206}.

Research has also identified protective factors that buffer the risk factors that might otherwise compromise a child’s development. They show their effect only under
conditions of risk and provide no advantage under low-risk conditions. Protective factors therefore appear to act as moderators in the relationship between risk and occurrence of hazardous behaviours\textsuperscript{17, 206, 210}. Protective factors include personal, social and institutional resources that foster confidence and promote successful development and thus decrease the likelihood of children engaging in hazardous ATOD use\textsuperscript{206}.

Like risk factors, protective factors are found in both the individual and the social environment. Examples of individual protective factors include orientation to conventional pro-social institutions such as school and church, an outgoing temperament, confidence, intelligence, success at school, strong bonds with family, adoption of conventional norms, active coping skills and alliance with pro-social peers. These protective factors combine to create what is termed a resilient personality\textsuperscript{17, 19, 206}. Certain physiological and genetic characteristics have also been identified, although the evidence for these is ambiguous\textsuperscript{19, 163}.

Protective environmental factors include strong attachments to those with norms and values against hazardous adolescent ATOD use; success at and commitment to school; family cohesiveness; a supportive nurturing relationship with at least one parent; and parental ability to supervise and monitor children's daily activity\textsuperscript{19, 163, 184, 206, 211, 212}.

Adolescents with individual or environmental protective factors are less likely to initiate regular ATOD use or develop ATOD-related problems, than those without these protective factors who face the same risk exposure\textsuperscript{163, 196, 213}. Such adolescents are thought to be less susceptible to health-compromising influences. It is also suggested the number of risk factors is linearly associated with an increased likelihood to initiate ATOD use. Conversely, fewer risk factors are associated with less likelihood of use\textsuperscript{163}.

This model of ATOD-use initiation suggests not only are there specific risk and protective factors for adolescent ATOD use, but also that these factors are malleable and therefore feasible health promotion targets\textsuperscript{8, 163, 196, 210, 213, 214}. Accordingly, Social Development Model theorists posit that health promotion interventions should focus
on reducing individual and socio-environmental factors predictive of hazardous ATOD use and boosting those that are protective16, 27, 103, 163, 196, 213, 215, 216.

2.6 Peer versus Parental Influence

Socialisation theories consistently identify both peers and parents as major influences on a range of adolescent behaviours15, 119, 150, 217, 218. While other sources of influence are important, they appear to be mediated by these primary sources of socialisation197. It been proposed that parents and peers influence adolescent behaviour in different ways depending on the relationships a young person has with each, the age of the child and the issue under consideration219.

Parents appear to be more influential than peers when children are younger and peers become more important as the children get older and seek their own identity15, 59, 144, 150, 158, 206, 220-223. Peers’ use of, and favourable attitudes towards, ATOD use have been found to have a direct, positive effect on an adolescent’s ATOD use. Conversely, peer non-use expectations, have a direct negative effect196. Association with prosocial adolescent peers is reportedly protective of several hazardous behaviours225. Further, the peer group appears to be particularly important when a young person has already made the decision to use ATOD, because it provides the access to the drugs, the setting and the reinforcement for use220.

It seems parents are more likely to influence adolescent cigarette and alcohol use through the normative standards they set, rather than the behaviour they model226. Conversely, peers appear to influence adolescent ATOD use more by modelling than through their normative standards196, 227-232 although, other evidence suggests peers were just as likely as parents to influence adolescents by normative standards13. While there is agreement that both parents and the peer group influence the ATOD-use decisions of young people, albeit perhaps differently, there is conflict regarding which of these has the greatest influence15, 46, 229.

Some contend the ATOD use and attitudes of an adolescent’s friends are the strongest and most consistent direct predictor of adolescent use196, 160, 199, 224, 233-235 especially as adolescents grow older221. Others, however, consider that the strength of the research evidence puts parents ahead of peers as the greater overall
influence. To cloud this issue further, one comprehensive analysis of the literature addressing the relative importance of parents and peers concluded there did not appear to be any point at which the ATOD-use of most adolescents was wholly influenced by either parents or peers.

It has recently been suggested that estimates of the relative influence of peers and parents on adolescents’ ATOD use have inflated the importance of peers and underestimated the influence of parents. The sources of the over-estimation (and the concomitant underestimation of parental influences) are suggested as being twofold. First, a reliance on cross-sectional data and second, drawing conclusions from young people’s perceptions of their peers’ behaviour rather than self-report of their own behaviour. As a result, it seems that any peer effects on ATOD use could have been overestimated by at least five-fold.

While the influence of peers increases as children enter and progress through adolescence, contrary to popular belief, the influence of parents may not decrease. It appears that parenting factors can mediate the process of peer selection and moderate negative peer influences. Recognising parents can influence with whom their adolescent associates, is considered one of the most important insights of the parent versus peer debate. Part of the influence previously attributed to peers may in fact derive from parents’ direct and indirect roles in peer selections made by their pre-adolescent children. The influence parents have in directing children towards the use or non-use of ATODs for recreational purposes should not be underestimated and also highlights the importance of parental involvement in health promotion programs that target adolescents.

2.7 Primary Prevention Best Practice
The question of how to best reach adolescents and their parents with primary prevention programs is considered a major health promotion challenge. While there are a number of settings where such programs can be delivered, there is widespread agreement that schools are an ideal venue.

Using schools as a setting for health promotion was formalised under the WHO Europe’s Health Promoting Schools Project in 1996 and similar initiatives exist.
in the US and the UK. Support for using schools as a medium to access adolescents and their parents for health promotion purposes is also reflected in significant Australian public health and education reports. The use of schools as a setting for health promotion has been a government priority in WA since 1986.

The primary prevention strategies utilised by schools also appear to be important. Traditionally they have concentrated on the individual rather than on his or her parents and the wider social environment. This approach has been criticised for being too narrow. It has recently been claimed that no long-term impact has yet been observed from school-based smoking prevention programs. Others are more optimistic and claim school-based programs that have resulted in meaningful and durable reductions in ATOD use exist, but are rare.

It seems some school-based programs have shown beneficial effects in terms of reducing initial onset rates, although the effects often decay after implementation ends. Likewise, hazardous levels of adolescent alcohol use and alcohol-related harm such as road-traffic crashes, suicides, assaults, school and family problems and progression to other drug use do not appear to be effectively reduced by classroom lessons alone. It is posited that sustained change requires the creation and maintenance of broader societal norms that do not condone such behaviours. Supporting this claim are results of recent research conducted in Australia with a sample of 3019 Year 6 (11-12 years of age) children, where the key predictors of pre-teenage ATOD use were found to lie outside the school domain, that is, with their parents' and friends' use of ATODs.

The overall consensus appears to be that primary prevention of ATOD-use problems that focuses only on the individual is, at best, limited, and at worst, ineffective in its ability to produce sustainable effects on adolescents’ decisions regarding the use of ATOD. It therefore seems school-based efforts to reduce the prevalence of ATOD-related harm require an integration of several strategies rather than reliance on any single intervention.
2.8 The Health Promoting School Framework

Utilising such a comprehensive approach to the primary prevention of ATOD-use problems has been conceptualised as The Health Promoting School Framework. This Framework comprises three broad strategies including: the provision of health education curriculum; the implementation of health-related policies (or other structural changes) within the school environment; and the parental and wider community involvement\textsuperscript{122, 281}. This model has been formally adopted in Australia where it is embedded in both health and education policies\textsuperscript{279, 282} and there is substantial agreement that parent involvement and education is an important component of this Framework\textsuperscript{24, 46, 122, 177, 283}.

2.9 Parents as a Primary Prevention Target Group

Primary prevention efforts typically target younger populations and since parents have the potential to influence the behavioural development of their children, including them as a specific health promotion target seems logical\textsuperscript{65, 67, 195}. It also seems sensible that children receive consistent rather than conflicting health messages from home and school\textsuperscript{38, 172, 273, 284}.

Parents and family provide the primary and most influential social learning system to which a child belongs\textsuperscript{49-52, 55-58} and health behaviours tend to cluster in families\textsuperscript{5, 54}. Many of the predictors of adolescent ATOD use (discussed in detail later in this chapter) are directly linked to the home environment\textsuperscript{65} and school-based health promotion programs run the risk of being relatively weak if the parental element is ignored\textsuperscript{65, 61-63}.

While there is evidence health education efforts involving parents have a positive impact on children, at least in some instances\textsuperscript{50, 82, 285, 289}, only rarely have school-based health programs systematically included parents (guardians or siblings) as an integral part of the primary prevention approach\textsuperscript{42, 287}. Engaging parents has the potential to make a contribution to reducing problems related to ATOD use\textsuperscript{38, 55, 67, 75, 195, 288}. Furthermore, the importance of assisting parents to appreciate the significant role they have in influencing the ATOD use of their children is also widely supported\textsuperscript{1, 13, 21, 66, 67, 76, 150, 163, 184, 208, 229, 288-293}. 
The contribution of social factors, such as parenting, in the initiation of children’s ATOD use has also been recognised in international, federal and state policy and strategic planning documents. The utility of implementing a comprehensive approach to school health promotion was recognised at an international level, when in conjunction with UNESCO and UNICEF, The WHO recognised the significance of involving the family and disseminated an expanded school health program model in 1991. When commenting on how best to address emerging threats to health, the Jakarta Declaration on Health Promotion in the 21st Century released in 1997, recommended new forms of action and accessing the potential for health promotion within families was one of these. The inclusion of parent education as an important component of Australian school and community ATOD education initiatives also enjoys substantial federal and state government policy support.

2.10 Risk and Protective Parenting Factors

While social factors, other than those associated with parenting, play a role in determining a child’s risk for initiation of ATOD use, there is substantial acknowledgment of parents’ role in this process. Their specific role has been extensively investigated and a number of parenting-related risk and protective factors have been identified. Four major groups of parenting factors are evident from the literature. These include parental modelling of ATOD use, the normative standards parents set regarding ATOD use, their parenting style and family management techniques, and the nature of parent-child communication. Further, these family influences seem to be most effective when they are developed in advance of adolescence. While these three groups of factors interact and overlap, they are addressed separately in the following discussion.

Modelling

The ATOD-using behaviour of parents and has been well documented as an important and, in many studies, an independent influence on adolescents’ initiation of ATOD use. The influence of parents as definers and modellers of ATOD-use and other health behaviours appears to be strongest at the early stages of ATOD involvement, such as whether or not children begin to use.
With regard to alcohol, children who have a parent who drinks heavily are not only more likely to become drinkers themselves, but also to drink heavily and use other drugs as well\textsuperscript{147, 219}. Likewise, although its observed effects have often been small or indirect, moderate alcohol consumption by parents has also been associated with adolescent initiation of use\textsuperscript{15, 76, 139, 160, 298}. One researcher, however, did not find this association\textsuperscript{303}.

The behavioural modelling aspects of Social Learning Theory\textsuperscript{302} can be used to explain the direct effects of parental ATOD use. That children can provide accurate information about their parents’ level of alcohol use supports the influence of parental modelling as a factor in adolescent drinking\textsuperscript{124}. There also appear to be indirect effects of parental alcohol use that can be explained using the Social Development Model (described earlier in this review). That is, the pattern and amount of parental drinking conveys attitudes and normative standards about drinking to children which, depending on their nature, have risk or protective effects on children’s decisions to drink\textsuperscript{17, 304}.

Likewise with cigarette smoking, it is clear from a variety of studies that parents’ smoking behaviour contributes to their children’s smoking behaviour. A disproportionate number of children, who smoke regularly, come from homes where one or both parents (and/or siblings) smoke\textsuperscript{143, 158, 166, 305}. Further, children are also more likely to try smoking if one or both of their parents formerly smoked\textsuperscript{20, 141, 235, 243, 306, 307}. While parental cessation of smoking does reduce the likelihood of children smoking, this evidence suggests that quitting smoking does not eradicate the effects of parental smoking on the likelihood of their children smoking. It seems children’s observations of parent smoking appear to influence their propensity to smoke even after parents quit\textsuperscript{158}.

Smoking cessation by parents appears to be most effective in reducing initiation if it occurs before the child reaches nine years of age\textsuperscript{308}. Parental smoking cessation has been found to be associated with almost one third less smoking uptake and with twice the rate of smoking cessation in adolescents aged 15-17 years\textsuperscript{308}. These findings were, however, limited by the cross-sectional nature of the data, so it is not
known if the onset of child smoking was prevented altogether or merely delayed. As discussed previously, earlier onset of smoking is associated with greater likelihood of smoking-related problems and less likelihood of quitting, so a delay in the age of smoking initiation could have positive public health implications.

Actively involving children in parental use of alcohol and tobacco by asking them to open or serve alcohol, or to light cigarettes, appears to increase the likelihood of children using these drugs. The mechanism at work is thought to be parental modelling of use and also the indirect communication of approval of children’s participation in such drug use\textsuperscript{101, 159}. Further, access to cigarettes and marijuana in the home has been associated with an increased likelihood of their use by children\textsuperscript{16, 19, 154}.

\textit{Normative standards}

The effect of parental modelling on children’s drug use appears to be mediated by other parenting factors such as family management techniques and non-permissive attitudes regarding children’s use\textsuperscript{139}. For example, even though children appear to be twice as likely to smoke cigarettes if their parents do so\textsuperscript{309}, these parents can, to some extent, mitigate the effects of their modelling by consistently expressing disapproval of smoking\textsuperscript{194, 243, 300}. Children appear to be up to between five and seven times more likely to smoke if they think their parents would not mind them doing so\textsuperscript{305, 309}.

While direct modelling of drug use by parents is an important independent determinant of ATOD use by children, other processes may be more salient\textsuperscript{1, 15, 42, 63, 69, 76, 124, 137, 160, 194, 197, 219, 228, 229, 231, 237, 238, 287, 291, 300, 302, 309, 310}. For example, the normative standards parents set and enforce for their children’s use and their general attitudes towards ATOD. Overall, it appears if parental normative standards regarding ATOD use by children are permissive or if parental attitudes towards anti-social behaviour are positive, the likelihood of ATOD use onset increases\textsuperscript{60, 69, 113, 139, 193, 229, 298, 300}. Using alcohol as an example, research has indicated adolescents who perceive their parents as having permissive views about alcohol use by youths, are significantly more likely to drink alcohol and use other drugs, than those who perceive their parents as having non-permissive views\textsuperscript{111}. 
Whether the control of children's ATOD use operates via parental modelling, through the adoption of attitudes and norms held by parents, or both, is debated. For example, the relative importance of parental attitudes and smoking behaviours as factors associated with youth smoking behaviours, suggest both are significantly associated with smoking by youth. It was initially thought that parents' smoking behaviour was more influential than their attitudes in determining children's smoking behaviour. The reverse of this, however, appears to be the case, with parental smoking doubling the youth smoking rate and permissive parental attitudes associated with an approximate four-fold increase. Thus it appears even though parental modelling is an independent predictor of youth smoking behaviour, parental attitudes toward youth smoking might have greater significance.

If parents disapprove of and actively discourage adolescent ATOD use, (that is project non-permissive normative standards), it seems the likelihood of children associating with ATOD-using friends is reduced because they know their parents disapprove of ATOD use. Evidence also suggests children are less likely to use ATOD if they are unwilling to jeopardise the relationship with their parents and non-using friends.

Parenting style and family management techniques

The third major group of parenting factors reported to influence the initiation of children's ATOD use is collectively referred to as parenting style and family management techniques. Included within this group are parent-child communication, closeness and cohesiveness, and parental monitoring of children. All of these factors affect the quality of the parent-child relationship that is central to several areas of adolescent development, with individual differences in ATOD use being profoundly affected by this relationship.

Of all the family factors that are associated with children's likelihood of ATOD use and the likelihood of problems related to such use, the quality of the parent-child relationship appears to be particularly important. For example, one longitudinal study found the quality of the mother's interactions with five-year-olds was related to ATOD-use problems at 18 years. A more recent
longitudinal study reported a significant protective effect of family bonding on the likelihood of regular cigarette smoking\textsuperscript{319}. Further, it is contended children who perceive their relationship with their parents to be satisfactory all or most of the time are significantly less likely to participate in a range of hazardous behaviours including ATOD use\textsuperscript{105, 223}.

The quality of the parent-child relationship is largely determined by parenting style of which parental responsiveness and parental control are two principal domains. Responsive parenting is described as being supportive, democratic, warm, accepting and involved. Indicators of responsive parenting include being engaged in understanding, validating and reacting to children’s experiences, concerns, and interests, and allowing children age-appropriate levels of psychological and behavioural autonomy. Parental control refers to methods parents use to maintain or modify children’s behaviour. The manner and degree of parental control are indicated by the characteristic ways parents set limits, establish rules, place demands, monitor activity, and respond to digressions\textsuperscript{60, 307, 320, 321}.

Longitudinal research has identified a specific amalgam of parental responsiveness and control, labelled ‘authoritative parenting’, that facilitates the development of children’s’ personal, social and academic competencies\textsuperscript{60, 307, 320, 321}. Authoritative parenting balances responsiveness and control whereby parents retain a high level of control in a warm and supportive context\textsuperscript{311, 320}. For example, although authoritative parents establish and enforce clear standards for behaviour, they are also responsive to their children’s’ needs and rights. In contrast, non-authoritative parenting is intrusive, excessively controlling, and offers little support for children’s’ individuality and development of autonomy. Authoritative parenting, which is both nurturing and demanding, fosters the development of child competencies, including self esteem, communication skills, social confidence, independence, maturity, and academic achievement\textsuperscript{66, 160, 219, 307, 322}. Authoritative parents are child-centred, provide pro-social involvement opportunities for children and reward children for such behaviours. Children therefore learn how to conform to acceptable social standards\textsuperscript{113}. In a recent 12-year longitudinal study children’s social conformity was negatively associated with ATOD use\textsuperscript{157}. 
The authoritative parenting style has been confirmed in numerous rigorous scientific investigations to be protective of a range of hazardous behaviours by children including ATOD use\textsuperscript{59, 61, 272, 322-327}. Of particular relevance to the primary prevention of ATOD-related problems, is that authoritative parenting has been repeatedly found to be inversely associated with substance use among children aged 10 to 11 years\textsuperscript{76, 163, 307, 311, 328}.

Furthermore, non-drinking among adolescents has been shown to be associated with both active and passive parental monitoring, both of which are characteristics of authoritative parenting\textsuperscript{317}. Telephoning other parents for information is an example of more active and committed parent-child monitoring than setting a time for a child to be home. Active monitoring strategies (e.g., finding out if parents or other responsible adults would be present at a party children wanted to attend) rather than passive monitoring (e.g., asking for the address of the party) showed the strongest association with reduced drinking\textsuperscript{317}. Longitudinal evidence supports the idea that parental monitoring of children decreases unsupervised time and narrows the range of negative social influences\textsuperscript{306, 272}. Monitoring of children by parents has also been shown in longitudinal research to influence peer selection and be protective against children’s selection of substance-using friends\textsuperscript{59, 241}.

Control in the form of pro-active monitoring appears to be more important than control in the form of reactive and excessive punitive restrictions\textsuperscript{306, 317, 329, 339}. Further, the effects of monitoring appear to be strongest at the transition into substance use, rather than at the transition from experimentation into regular use\textsuperscript{272}. For example, an inverse association has been reported between parental monitoring and nine and ten year-old children’s drug-use experiments\textsuperscript{119}. A low level of parental monitoring of children after school also appears to be critical to the early-onset substance use such as smoking\textsuperscript{331, 332}. It has been suggested over 80\% of smoking-initiation episodes occur in friends’ houses without a supervising adult\textsuperscript{333}.

Non-authoritative parenting has been reported to predict children’s initiation of ATOD use. Numerous family management practices have been reported to increase the risk of children’s initiation of ATOD use. Some of these include: poor family management and communication techniques; unclear expectations of behaviour; poor
or non-existent monitoring of behaviour; few and inconsistent rewards for positive behaviour; and excessively severe or inconsistent punishment for unwanted behaviour.\textsuperscript{42, 66, 113, 120, 165, 195, 208, 228, 293, 311, 319, 322, 329, 334}.

Family conflict appears to be a predictor of ATOD use by children\textsuperscript{112, 163}. The extent of parent-child conflict has been identified in both cross sectional and longitudinal studies, as an important aspect of parenting style\textsuperscript{217, 240, 287, 316, 335}. Some claim parent-child conflict will have the greatest impact on the likelihood of adolescent initiation of ATOD use\textsuperscript{221, 280, 293, 336, 337}. Furthermore, such conflict is reported to be predictive of subsequent ATOD-use problems\textsuperscript{241, 290}.

While some evidence suggests children from homes broken by marital discord have a higher risk of ATOD use\textsuperscript{322, 334, 338}, other evidence suggests no independent contribution of marriage breakdown\textsuperscript{208, 359}. The key factor appears to be the presence of family conflict and a chaotic home environment, rather than the marriage breakdown and the subsequent changes in family structure\textsuperscript{19, 59, 221}. If the change in family structure results in increased family conflict and less parental involvement with children whereby parent-child cohesiveness and bonding are lessened, then the risk of ATOD use by children is posited to increase\textsuperscript{221, 336, 340}. It seems the presence or absence of parents may be less salient than the quality of the parent-child relationship.

Further support for the importance of the quality of the parent-child relationship comes from evidence suggesting that having a close non-conflictual relationship and high involvement with parents is consistently and significantly protective of binge drinking, cigarette smoking and illicit drug use by children\textsuperscript{19, 59, 117, 237, 299, 313, 316, 335, 341-343}. For example, an adolescent from a family that offers affection, support, trust, and guidance is much less likely to engage in hazardous behaviours, including ATOD use\textsuperscript{16, 19, 66, 113, 120, 221, 335}.

It also seems that, among children who initiate ATOD use, the quality of the parent-child relationship impacts on the extent of use and likelihood of associated problems. Young people with a close relationship and a strong bond (also termed 'connectedness') with their parents and who initiate alcohol and tobacco use, report
low levels and low frequencies of use\textsuperscript{16, 160, 167, 217, 334, 343-345}. In addition, while the physical presence of a parent in the home at key times (monitoring) is reported to reduce the risk of adolescent ATOD use, it appears to be less significant than parent-child connectedness (eg, feelings of warmth, love and caring from parents)\textsuperscript{16}. Overall, there is substantial scientific evidence suggesting that a high quality parent-child relationship fosters strong bonds to conventional society such as commitment to and connection with school, education and family and is therefore protective of ATOD-use initiation\textsuperscript{16, 23, 113, 117, 120, 137, 212, 335, 346}.

\textit{Parent-child communication}

A review of programs designed to reduce alcohol-use problems among adolescents, suggests the quality of parent-child communication is a particularly important factor in the overall domain of family management techniques\textsuperscript{287, 291, 335, 337, 347, 348}. Effective communication is generally regarded as a central feature of optimum family functioning\textsuperscript{14} and fundamental to understanding how parents influence their children's decisions about ATOD use\textsuperscript{310}.

It has been demonstrated that where parent-adolescent communication is good, the family is closer, more loving and more flexible in solving problems\textsuperscript{114}. It has also been argued that effective communication facilitates the processes of developing family cohesion and adaptability\textsuperscript{349}. Where communication is open and friendly, young people are likely to be satisfied with their family and experience less parent-child conflict\textsuperscript{114}.

It is suggested the quantity and quality of parent-child communication about a range of family issues affects the development and maintenance of family bonding, which in turn, affects children's behaviour\textsuperscript{105, 114}. The nature of the communication between parents and children and the extent to which parents are able to communicate their beliefs and attitudes to their children, are parenting factors associated with children's ATOD use\textsuperscript{66, 105, 117, 223, 292, 347, 350}. Regular communication of parental warmth and affection, support for child competencies and presentation of clear expectations and discussion of children's activities has been found to be protective of a range of hazardous behaviours including ATOD use by children\textsuperscript{105, 195, 203, 313, 351, 352}.
Negative communication patterns, conflict, inconsistent and unclear behavioural limits, and unrealistic parental expectations have been found to be common characteristics of families of adolescents who have progressed past initiation and are experiencing drug-use problems\textsuperscript{393, 353}. Due to the cross sectional nature of this evidence, however, it is unclear whether these family characteristics were antecedent or consequent to the ATOD-use problems.

The degree to which adolescents talk openly with their parents has been found in both cross sectional and longitudinal studies to be associated with reduced ATOD use\textsuperscript{59, 334, 335}. One longitudinal study found children who reported their parents spent more time with them and communicated with them more frequently, had lower onset rates of alcohol and tobacco use than those who reported less frequency of both parent-child communication and time together\textsuperscript{59}.

More recent longitudinal evidence, however, has reported a complete absence of influence of any domain of parent-child communication about tobacco and alcohol use on adolescent initiation of either cigarette smoking or drinking\textsuperscript{350}. This contrary finding may be accounted for in terms of differences in research methodologies. The latter results\textsuperscript{380} were based on parents’ reports of parent-child communication, whereas the former was based on children’s reports of parent-child communication\textsuperscript{59}. Previous research suggests substantial incongruence exists between parent and adolescent reports of parenting behaviours\textsuperscript{314, 311, 343, 356} and adolescent reports are reported to be more reliable predictors of their ATOD-use behaviour\textsuperscript{311, 343}.

The impact of parent-child communication appears to be multi-dimensional. As well as the actual occurrence or frequency, the content and timing of parent-child drug-related communication appears to also be important. There is agreement that specific ATOD-content-related communication should be taking place well before the children reach adolescence\textsuperscript{5, 59, 76, 306}.

What parents actually talk about also seems to be important. More directive communication content includes discussing sanctions for use and actually telling the adolescent not to use tobacco or alcohol. In contrast, softer communication includes talking about potential harm and circumstances that may promote use. In the study
that reported no influence on any domain of parent-child communication, the parents tended to engage less often in the more directive communication topics and talked more often about the softer issues. This information supports the suggestion that parents who do not want their children to engage in hazardous behaviours must take an active and directive role in communicating this to their children and also check their children’s perceptions of the messages conveyed.

Enhancing communication between parents and their children regarding where and how adolescents are spending their free time and assisting parents to communicate protective attitudes to their children are reported to be promising strategies to reduce ATOD-use problems. One longitudinal evaluation of the combined effect of five community-based intervention strategies, reported that family communication activities led to significantly lower adolescent intentions to smoke. The individual contribution of these activities, however, could not be determined. Longitudinal results from another randomised trial designed to evaluate multi-level community wide strategies to prevent or delay alcohol use among adolescents, indicated the intervention significantly reduced alcohol use among young adolescents. It has since been reported the parent-child alcohol-related communication variables were important mediators of these findings.

While parenting factors have been repeatedly shown to influence the likelihood of the onset of ATOD use by children, there are additional reasons for targeting parents with education, to prevent or delay children’s ATOD-use initiation. Unless parents know what behaviours to model and reinforce and how to go about this, they cannot be expected to support school-based programs as well as they otherwise could. For example, many parents disengage when their children become adolescents. This has the effect of increasing adolescent autonomy and greater exposure to peer groups that are not supervised. Such parents may not realise adolescence is a period when family management and parent-child closeness are protective of hazardous and harmful ATOD use and therefore critical to the well-being of their children.

Further, it appears that young people view parents as a trusted and credible source of information, plus a very important and necessary component of any ATOD education strategy. There is also evidence suggesting children actually want to talk to their
parents about ATODs\textsuperscript{98}. Indeed, factual information emphasising the range of negative consequences associated with ATOD use from trusted and credible sources such as parents and teachers can exert powerful effects on adolescents' self-reported personal use of ATOD\textsuperscript{357}.

One study, with a sample of 1023 eighth and tenth grade students, assessed the amount of information they received from ten sources about six categories of drugs. Television was the primary source of information for all categories of drugs except inhalants, for which friends and television were equally important sources. Parents and printed media (magazines or newspapers) were ranked the second most important source of information\textsuperscript{358}.

More recent research reported over half (53\%) of the secondary school children surveyed considered parents their preferred source of learning about ATODs\textsuperscript{59}. Other recent research reported most of the adolescents sampled were satisfied about how they communicate with their parents\textsuperscript{114}.

Parents should also be included in primary prevention initiatives because they are usually the people to whom pre-adolescent children go for help with most of their problems. Moreover, parents have a strong interest in helping their children and are already natural educators with at least nine or ten years experience\textsuperscript{98}. There is also evidence suggesting parent involvement with their children improves student achievement\textsuperscript{560}. Parents, therefore, appear to represent a major community resource with which school-based health promotion professionals should be working in partnership\textsuperscript{57, 63, 68, 78, 102, 245, 299, 328}.

2.11 Parents' versus Children's Perceptions
As mentioned previously, it appears children's perceptions rather than parental reports of these parenting factors, is an important influence on children's attitudes towards and use of ATODs\textsuperscript{1, 60, 124, 157, 197, 223, 225, 229, 231, 232, 291, 299, 300, 311, 319, 342, 343, 361}. For example, the results of one study found children who believed their parents would not know if they were drinking alcohol, had more than double the likelihood of reporting recent alcohol use\textsuperscript{60}. Likewise with smoking behaviour, levels of parental support, as perceived by the child, have been found to be inversely related to
smoking, with a high level of perceived support linked to a reduced smoking prevalence\(^{319}\).

Research also indicates adolescents and their parents often differ in their perceptions of how parenting is approached\(^{311, 360, 362}\) and substantial discrepancies between parent and child reports of parenting behaviours have been found to exist\(^{94, 119, 124, 223, 311, 343, 352, 356}\).

Because it appears the child's rather than the parent's perception of parenting behaviours is most closely associated with ATOD-use outcomes, it is important for both parents and researchers to consider how parents might better understand the manner in which they are perceived by their children\(^{311, 343}\).

2.12 Empirical Evidence: Parent-Oriented ATOD Educational Interventions

Social interventions, such as health promotion programs, are complex phenomena and usually require the application of multiple research methodologies. The usefulness of a combination of both quantitative and non-experimental methods to collect formative, process and outcome data is widely supported\(^{363-368}\). Qualitative and quantitative methods can be employed sequentially or simultaneously in a single study and therefore, existing outcome and formative evaluations of parent ATOD educational interventions were investigated in this literature review.

While the role of parenting risk and protective factors in the initiation of ATOD use has been increasingly recognised, only recently have the research findings been applied in intervention research\(^{216}\). Further, most existing interventions appear to be designed for parents of children who are at very high risk of using ATOD or who are already using and experiencing ATOD-related harm. There appeared to be few empirical evaluations of ATOD-related parent training interventions that were primary prevention-oriented\(^{352, 104, 216}\).

This section presents a critical analysis of the published parent-targeted ATOD educational interventions empirically evaluated in Australia and elsewhere. The selection of papers analysed in the following review was guided by several inclusion
criteria. Information was sourced only from post-1985 publications written in English and peer-reviewed prior to publication. Parent interventions were only included if they were ATOD-related and reported outcome data in relation to parenting behaviours and had been empirically evaluated via an experimental or quasi-experimental research design. That is, they included control group/s or comparison of groups experiencing different intervention strategies and collected both baseline and outcome measures from the same sample. Even in the US, where parent-oriented prevention programs are popular, it appears few such initiatives have been systematically evaluated42.

The final inclusion criterion related to the target group of the interventions. Parent-directed prevention interventions can be categorised as ‘universal’, ‘selective’ or ‘indicated’103. Universal parent education programs target all families in a population103, and parents are not identified on the basis of individual risk103. Given the prevalence of ATOD use and related harm among young people, universal interventions are more desirable in terms of overall public health goals103. As this research was primary prevention-oriented, non-universal interventions (for example, therapeutic interventions involving secondary and tertiary prevention strategies such as individual or small group therapy or counselling for either parents or their children) were excluded. Numerous studies of parent ATOD educational interventions were identified but were excluded from this review because they did not meet all of the inclusion criteria described thus far. Provided below in Table 1 is a listing of research excluded from this review.

Table 1: Inclusion criteria and research excluded from the analysis of empirical evidence

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Excluded studies</th>
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<tbody>
<tr>
<td>Post-1985, written in English and peer-reviewed</td>
<td>10, 191, 347, 369-371</td>
</tr>
<tr>
<td>ATOD-related intervention targeted at parents and reported parenting skills outcome data</td>
<td>20, 29, 45, 49, 50, 55, 57, 78, 98, 165, 172, 178, 190, 274, 277, 372-381</td>
</tr>
<tr>
<td>Intervention research with an experimental or quasi-experimental design</td>
<td>9, 14, 28, 37, 39, 68, 70, 72, 73, 75, 76-82, 190, 191, 213, 223, 347, 356, 382-388</td>
</tr>
<tr>
<td>Universal versus Selective or Indicated</td>
<td>210, 278, 327, 387, 389-397</td>
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</tbody>
</table>
The methodological rigour of each of the nine studies, identified as complying with the inclusion criteria, was assessed and the results are presented in Table 2. The sample size of each study was considered because it determines statistical power in data analyses and interpretation. While estimates were not recalculated, the findings of studies with relatively larger randomly selected samples and where sample representation was also reported were considered to be more robust and less likely to contain sampling or random error\textsuperscript{398}.

Sample selection methods and the representation of subsequent samples are also important determinants of methodological rigour\textsuperscript{398}. Therefore, to be considered sufficiently rigorous, evidence relating to the existence and levels of randomisation, was required.

The data analyses techniques used in each study were examined because interventions of a universal type often recruit parents via schools. The findings of such research can be compromised if individuals are used as the unit of analysis when the assignment to condition was based on the school or classroom\textsuperscript{399}. In studies where this was the case, and where the data analyses techniques did not appear to have assessed or controlled for the likelihood of Type I error, the findings were considered less robust.

To be considered methodologically sound, a report on the validity of measurement instruments was required due to its role in minimising measurement error\textsuperscript{400}. Likewise, an evaluation of the reliability of data collection instruments was considered necessary\textsuperscript{400}.

Finally, because adequate dosage is critical to intervention effectiveness, the findings of studies where the completeness of intervention implementation was not reported were considered less robust\textsuperscript{54, 401}. If inferences were made from parent outcome data without the provision of feedback regarding the intervention dose, the risk of erroneously attributing observed outcomes (positive or negative) to the intervention is increased (Type III error), and such studies were considered less rigorous.
### Table 2: Previous parent ATOD-related intervention research: Assessment of rigour

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<th>Authors</th>
<th>Fup. date</th>
<th>Place</th>
<th>Study Name</th>
<th>Imp. completeness reported</th>
<th>Parent sample Size</th>
<th>Parent sample Random</th>
<th>Parent sample Rep.</th>
<th>Instruments Val. and Rel.</th>
<th>Child's views re: parent behaviour</th>
<th>Sign. re: parent skills</th>
<th>Appropriate R: ICC? (if applicable)</th>
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<tbody>
<tr>
<td>Zubrick et al.</td>
<td>Under review</td>
<td>Aust</td>
<td>Triple P</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>NA</td>
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<td>Sanders et al.</td>
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<td>Aust</td>
<td>Families</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
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<td>USA</td>
<td>Project Northland: AAHP</td>
<td>✓</td>
<td>n=521</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>USA</td>
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<td>x</td>
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<td>✓</td>
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<tr>
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<td>n=209</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>x</td>
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<td>LoSciuto &amp; Ausetts</td>
<td>1988</td>
<td>USA</td>
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<td>✓</td>
<td>n=336</td>
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Key: ✓ = yes, x = no, NR = not reported, NA = not applicable, ? = unclear
All of studies meeting the inclusion criteria for this review reported positive results in terms of improving parenting behaviours but as shown in Table 2, their methodological rigour varied. For example, in one instance a small sample size in each study condition made interpretation of the findings problematic\textsuperscript{403}. The findings of some were limited by lack of random assignment to study conditions\textsuperscript{78, 89, 90}. In addition, the extent of randomisation varied. For example, in one study, parents were non-randomly recruited but subsequently randomly assigned to the intervention or wait-list study conditions\textsuperscript{402}.

In some studies it was unclear as to the extent results could be generalised to parents in other communities. While some researchers reported evidence the sample may not have been representative of parents in the wider community\textsuperscript{90, 94, 402}, others did not appear to report sample representation\textsuperscript{404}.

As explained earlier, adolescents and their parents often differ in their perceptions and substantial discrepancies between parent and child reports of parenting behaviours have been found to exist\textsuperscript{1, 102, 119, 223, 300, 311, 343, 352, 356, 362}. Several studies reported parent outcomes but did not appear to collect children’s perceptions of parenting behaviours\textsuperscript{62, 89, 90, 402}.

One study analysed data using the parent as the unit of analysis when the assignment to condition occurred at the level of the child’s school\textsuperscript{62}. The findings may have been compromised by Type I error due to the potential interdependence of parenting outcomes among parents of children in a given school\textsuperscript{399}. Other studies did not appear to report the potential impact of response clustering\textsuperscript{69, 89, 90, 94, 277, 402, 404}.

One study indicated the parent data collection instruments were pre-tested and revised to eliminate ambiguous items (face or content validity)\textsuperscript{62}. Others did not appear to report measures of validity or reliability\textsuperscript{69, 89, 404}. Finally, two studies did not appear to report the extent to which the parent intervention was implemented (fidelity)\textsuperscript{69, 89} placing these findings at risk of Type III error.

Two methodological sound interventions emerged from the above review process. One was called ‘Preparing for the Drug Free Years’\textsuperscript{23, 103-105} and the other was called
'Project Northlands: Amazing Alternatives Home Program'\textsuperscript{7, 43, 100, 104-108}. Parental participation in both of these educational projects resulted in positive effects on parent-child ATOD-related communication.

Preparing for the Drug Free Years (PDFY) is a component of The Seattle Social Development Project\textsuperscript{20, 103-105} which is a school-based intervention designed to reduce shared childhood risks for delinquency and ATOD-use problems by enhancing protective factors\textsuperscript{19}. At the same time as children progress through classroom lessons, parents are provided with training sessions, one of which, PDFY, specifically addresses ATOD-use issues.

PDFY is a universal prevention program targeting parents of pre-adolescents (aged eight to 14 years). This program consists of a parenting curriculum and seeks to reduce risk and enhance protection against early initiation of ATOD use. It aims to improve patterns of parental behaviour and family interactions. Initially the program was field-tested with parents in an urban multi-ethnic community\textsuperscript{105} and subsequently PDFY has undergone several large-scale dissemination and effectiveness studies across 30 states of the US and Canada\textsuperscript{20, 103-105}.

The PDFY parent training intervention consists of five two-hour sessions presented by trained facilitators. The parent education sessions aim to increase opportunities for involvement and interaction between parents and children; teach parents and children ways to resist negative peer-influence; increase rewards for pro-social behaviour through consistent and positive family management skills; and manage and reduce family conflict\textsuperscript{105}. Evaluations of PDFY have demonstrated effective dissemination, completeness of implementation and significant overall improvement in intervention-targeted parenting behaviours including pro-active parent-child communication, general child-management skills (such as standard setting, monitoring and discipline) and improved quality of parent-child relationships for both mothers and fathers\textsuperscript{103-105, 403, 405}.

While the PDFY parent intervention has been rigorously evaluated and has shown significant effects on parenting outcomes identified in previous research to be predictive of ATOD use by children, recruitment and participation rates of parents
seemed somewhat problematic. For example, in one evaluation of PDFY only 57% of 387 eligible parents agreed to participate and the sample size at follow-up did not appear to be reported. In a separate subsequent evaluation only 43% of eligible parents attended the parenting training sessions. In another evaluation of PDFY conducted in rural communities, only 57% of eligible parents agreed to participate.

The parent-child communication-related outcome variables measured in evaluations of the PDFY related to the style of such communication. While this factor is supported in the literature as an appropriate intervention target, other aspects of parent-child communication such as the ATOD-related content, frequency, duration and extent of parent-child engagement did not appear to be considered in the evaluations of the PDFY program.

The Amazing Alternatives Home Program is one component of a larger community-wide intervention called Project Northland conducted in 20 school districts in North Eastern Minnesota. A cohort of sixth grade students was followed for three years. The first home component (Slick Tracy) occurred when the children were in sixth grade and consisted of four weekly parent-child homework activities designed to increase communication and home rules about underage drinking. Outcome data relating to parenting behaviours did not appear to be collected in this phase of the overall project.

The Amazing Alternatives Home Program (AAHP) was implemented in the second year of Project Northlands and attempted to reach and affect parents of seventh grade students using booklets disseminated via direct mail. The booklets had two parts. The first contained information to be read by parents and the second was a discussion activity to be completed by parents with their seventh grade child. Fifty per cent of parents (n=521) indicated they had personally worked with their child on at least one of the home activities.

The main goals of the AAHP intervention were to increase parent-child communication concerning alcohol-related issues, to improve parenting skills such as monitoring and supervision, and ultimately, to reduce underage drinking. While changes in other parenting behaviours and student self-reported alcohol use were not
observed, participation in the AAHP was associated with increased parent-child communication concerning alcohol-related topics\textsuperscript{104}. While only 33% of eligible parents were recruited to the program\textsuperscript{104}, it was suggested this participation rate was much higher than typical classroom-based parent educational programs scheduled away from the home\textsuperscript{100}.

While the remaining seven studies meeting the inclusion criteria for this review were less rigorously evaluated, they contained useful information. In a project designed to prevent cigarette smoking among adolescents (titled 'Talking Together') communication skills workshops were developed to teach a range of adults (including parents) how to help young people make responsible decisions and resist peer influences\textsuperscript{89}. Workshops were conducted with 125 parents, teachers and other adults. The workshops were evaluated through a one-year follow-up survey of participants to assess their knowledge and use of the skills promoted in the intervention. A behavioural comparison of adolescent smoking initiation between an area receiving high intensity workshops and an area receiving lower intensity workshops was also undertaken. The results indicated participants were mostly females and 66% of those surveyed one year after the workshop reported use of the skills five or more times in the past month. In addition, significantly fewer adolescents in the high intensity intervention area initiated cigarette smoking than in the low intensity intervention area. While the study had design limitations (Table 2), it suggested adult communication skills might have impacted on adolescent smoking and other hazardous teenage behaviours\textsuperscript{89}.

Another intervention, called 'Project PRIDE', combined classroom lessons with training modules for teachers and parents. Parents were offered skills training to maximise positive and responsible relationships with their children. They were exposed to skills training in the areas of limit-setting, effective communication, decision-making and conflict resolution. The overall intervention was evaluated with a pre-post experimental design where schools and classes were randomly assigned to a study condition\textsuperscript{104}. As shown in Table 2, several aspects related to the methodological rigour of this research were not reported and statistically significant findings for the parent behaviours measured were not evident.
Another parent-child intervention titled ‘Keep a Clear Mind’, was evaluated to assess the impact of a take-home intervention on the ATOD-related communication and beliefs of participating parents and children\textsuperscript{62}. Schools were non-randomly recruited and the parents at each school were assigned to the intervention condition or a wait-list control. The intervention consisted of a series of four weekly lessons on alcohol, tobacco and marijuana, and used social skills training to assist children to avoid ATOD use. Each of the four lessons provided a brief introduction to the weekly topic, followed by a sequence of five activities to be completed at home with a parent. The home activities included answering simple questions about drugs, listing reasons not to use specific drugs, writing 'No' statements to reduce pro-drug social pressure, selecting the best ways to refuse and avoid ATODs, and completing contracts to refuse/avoid ATODs\textsuperscript{62}.

The results at follow-up indicated mothers in the Intervention Group reported significantly more recent communication with their children, regarding how to refuse or avoid ATODs and greater frequency of these types of discussions than that reported by mothers in the Control Group. These mothers also reported significantly greater discussions with their children about how to resist peer influence to drink alcohol, and try marijuana than those in the Control Group. Fathers in the Intervention Group reported significantly greater communication with their children regarding how to resist peer influence to drink alcohol, and use tobacco than fathers in the Control Group. These fathers also reported significantly more motivation to help their children avoid drug use than did fathers in the Control Group. No significant differences were found between fathers in the Intervention and Control Groups on measures of the frequency of father-child communication about avoiding/refusing drugs, and resisting peer influence to use marijuana. In addition, no significant differences were found between groups on fathers' drug-related knowledge or beliefs.

In terms of intervention completeness, less than half the fathers reported helping their children complete the majority of the program materials. These researchers recommended future home-based drug education efforts emphasise the full participation of both parents to ensure successful prevention of drug-use behaviours among children. They also concluded that a four-week take-home drug prevention
program emphasising parent and child cooperative activities increased parent-child communication and altered children’s perceptions about the extent of peer drug use. In addition most teachers, parents, and children in the study favourably assessed the intervention materials and reported they would recommend the program to others, and considered parental involvement was important for effective drug education efforts.

The ‘Keep a Clear Mind’ Program evaluation was subsequently repeated in a slightly altered form. The major difference being parents at each school were assigned to one of two intervention conditions (differentiated by the extent of incentives) or the wait-list Control Group. Compared to parents in the Control Group, parents in the Intervention Groups appeared to have gained factual information from the program and were more likely to express their children had an increased ability to resist pressure to use the substances covered in the program. They also were more likely to report a decreased expectation that their child would try ATODs and to have a more realistic view of ATOD use among young people. It was also reported the four-week take-home prevention program, emphasising parent-child cooperative activities, produced changes in the responses of young children and their parents to questions concerning attitudes, perceptions of use, and intended use of ATODs. These researchers considered it reasonable to assume the changes in students’ perception of parental attitudes may have resulted from enhanced parent-child communication concerning this issue. The validity of this finding, however, is questionable because in this evaluation of the ‘Keep A Clear Mind’ intervention, parent-child communication was not specifically measured.

Another program titled ‘Project SixTeen’, evaluated a parent intervention over a ten-month period in two communities. The main aim of the ‘Project SixTeen’ intervention was to increase both parents’ and children’s exposure to anti-tobacco messages. It was designed to increase parent and child knowledge about the extent of tobacco-related use and harm, and also to inform about the amount of money spent by tobacco companies on marketing their product. Data related to parent-child communication about tobacco were collected in a series of four telephone interviews.
The study participants consisted of 385 parent-child dyads where the children were in sixth or eighth grade at school. Students took home a quiz about tobacco for their parents. Approximately one week prior to the quiz, parents were sent a letter signed by numerous prominent local citizens. Parents also received a communication pamphlet used in an earlier study. (The earlier study found no evidence the pamphlet, urging parents to talk with their children about tobacco, increased parent-child communication about tobacco.) The response rate from eligible families was 68.5%. Whether the intervention actually influenced parents to talk with their children was not clear and there was no evidence from youth reports that parent-child communications about tobacco occurred more frequently in the Treatment Condition than in the Control Group. The findings of this research had three main limitations. First, attrition analyses were reported for students but not their parents. Second, while the parent-child dyads were randomly selected, the extent of shared variance, as parents were recruited via schools, did not appear to be examined. Finally, in terms of parent-child tobacco-related communication, it seems recency was measured but not frequency, duration, extent of parent-child engagement during discussions, or the specific drug-related content.

From this review of outcome research, it appears several studies have explicitly targeted parents in an attempt to reduce their children’s onset, and hazardous use of ATOD, by directly focussing on parenting skills. While the number of such interventions appears to be increasing, there are relatively few that have been subjected to rigorous efficacy trials, and even fewer have subsequently been replicated with diverse populations under less controlled conditions (effectiveness studies). This conclusion is consistent with previous findings. For example, in 1995, 22 parent-oriented interventions that aimed to prevent children’s use of ATODs were reviewed in a descriptive study and only 12 reported any form of evaluation. Further, none of the 12 evaluations measured completeness of delivery or reported any follow-up evaluation.

Further, the majority of outcome evaluations of ATOD-related parent training interventions have been conducted in North America and the American experience does suggest promise for parent training in a variety of youth health and behaviour problems. Research in other health domains, for example cardiovascular health,
has concluded that the involvement of families using school-based resources is feasible and effective\textsuperscript{90}. However, the Australian experience with the evaluation of parent training interventions is limited, particularly those related to enhancing the quality of parent-child communication about ATODs\textsuperscript{86,115}.

One parent training intervention in Australian has shown some promise\textsuperscript{90,402}. The Triple P (Positive Parenting Program) comprises a behavioural intervention for parents based on social learning principles\textsuperscript{92}. One aim of Triple P is to enhance the knowledge, skills, confidence, self-sufficiency and resourcefulness of parents of preadolescent children. It also aims to promote nurturing, safe, engaging, non-violent and low-conflict environments for children, and to promote children’s social, emotional, language, intellectual and behavioural competencies through positive parenting practices\textsuperscript{92}.

In an experimental evaluation of Triple P, 56 mothers with children aged between two and eight years were non-randomly recruited in the Australian Capital Territory. They were then randomly assigned to either a wait-list or intervention condition. The intervention, titled ‘Families’, comprised a 12-episode self-help video on parent and child behaviour. Intervention parents also received 12 written self-help information sheets. One sheet corresponded to each segment of the video. Implementation fidelity was assessed and parents were followed-up six months post-intervention. The parent outcomes did not specifically include measures of parent-child communication. When compared to those in the wait-list condition, however, mothers in the Intervention Group reported a decrease in disruptive child behaviour and an increased sense of competence as a parent\textsuperscript{402}. Despite these findings being limited by several methodological constraints, (Table 2) and they did not specifically address ATODs, they did support the delivery of training in parents’ homes using a mass media audio-visual strategy.

A larger evaluation of the universal component of Triple P was conducted recently in Western Australia\textsuperscript{90}. The sample consisted of 1254 parents of children aged three or four. While based on a population approach, it was not of a universal nature as the children of parents recruited to the intervention condition were rated (based on several criteria) as being at high risk of serious behaviour problems. Universal
programs by definition target all parents irrespective of their children’s risk status\textsuperscript{104}. While positive parenting outcomes were reported, the results were limited by non-random assignment to condition, non-random differential attrition and group inequivalence\textsuperscript{90}. Further, by 24 months post-intervention the changes in parental outcome scores were no longer significantly different to those of the Comparison Group\textsuperscript{90}.

2.13 Formative Evidence

There is clear support in the literature regarding the importance of parents’ influence on the health behaviour of children, there is also agreement regarding the parenting factors that are protective of ATOD-use onset and problems, and that this information should be conveyed to parents. What appears to be less clear, however, is how this can best be achieved. Past efforts to involve parents have been only partially encouraging, primarily due to difficulties in recruiting and maintaining substantial parent participation\textsuperscript{9, 52, 62, 69, 71-74, 76-78, 80-85, 381}. Further, parents who do respond are usually reported to be already skilled in parenting, and who therefore least need parenting training\textsuperscript{52, 73, 77, 78, 81, 82, 85}.

Ideally, future intervention research should capitalise on what is already known about recruiting parents\textsuperscript{406} and previous formative research does provide some guidelines regarding barriers to and predictors of parental involvement. Collectively, these relate to identifying parents’ needs, the nature and content of the intervention, accessibility of the intervention, incentives for participation, and consultation with parents during the development phases of the intervention.

Parents are individuals with their own unique characteristics, needs and history. Acknowledging this individuality is important when designing interventions\textsuperscript{407, 408}. A consultative phase is a recommended inclusion in the development of parent-oriented ATOD-related interventions\textsuperscript{409-411}, and doing so is reported to enhance the effectiveness of parent training interventions\textsuperscript{78, 384, 409, 412}.

While formative research related to the needs of parents regarding health topics other than ATOD use are many\textsuperscript{178, 273, 360, 411, 413-416}, evidence of consultation with parents prior
to the implementation of parent-oriented ATOD-related training is reported to be scarce\textsuperscript{43, 94, 97-102}.

Existing formative evidence provides some insight regarding parents’ concerns about ATOD use, and it appears they are generally very worried about young people’s ATOD use\textsuperscript{9, 52, 86, 102, 409, 417}, especially the use of illicit drugs\textsuperscript{102, 418}. Each year in Australia thousands of parents phone the National Alcohol and Drug Information Service with concerns about their children’s ATOD use\textsuperscript{419}. Parents fear their children may use ATOD and worry about the availability and affordability of drugs\textsuperscript{81, 98, 102, 253, 418}. Parents also worry about harm to the user’s health, the contribution of drug use to violence, and the possibility of addiction\textsuperscript{420, 421}.

While many parents worry about ATOD use and the potential harms, it seems they may, at the same time, dismiss the immediate relevance of a parent ATOD educational intervention\textsuperscript{78}. One participation barrier, identified by several formative studies, related to parents not perceiving the ‘drug issue’ to be of immediate relevance for their family. One formative study reported many parents would only seek and read information about ATODs if, and when, they believed there was a specific need for their child\textsuperscript{418}. These parents believed most children were likely to be offered alcohol, but were reluctant to personalise the issue for their own families\textsuperscript{418}. A frequent finding was parents seem to believe that other people’s children would be more likely than their own, to use ATODs\textsuperscript{39, 420-422}. Interestingly, comparisons of parent reports of child ATOD use with child self-reports reveal parents often underestimate children’s ATOD involvement\textsuperscript{39, 87, 88, 422, 423}.

Existing formative research also provides information about parents’ beliefs and perceptions regarding their parental efficacy. The evidence regarding parents’ confidence to tackle ATOD-use issues is, however, conflicting. One study reported 99\% of parents consulted (sample size not reported) believed parents should take primary responsibility for providing information and advice to young people about ATODs and most (74\%) felt confident in their ability to do so\textsuperscript{418}. These parents believed the best age to influence children in relation to a range of issues, including ATOD use, was between eight and 12 years\textsuperscript{418}. Seventy-eight per cent of parents in another cross-sectional study expressed confidence in communicating with their
children about ATODs, 64% considered themselves ‘fairly well informed’ and 46% thought this should occur before children were aged 11\(^9\).

In contrast, other needs assessments have reported that parents felt they could do nothing to help their children once they began to use ATODs\(^{47,424}\). Parents have also reported feelings of detachment and isolation from other parents who may share similar concerns\(^{87}\). Likewise, parents have reported feeling unable to overcome peer influences to use ATOD; feel they can exert little influence on their children’s ATOD use; and often feel frightened and confused about these issues\(^ {87,287,357,417}\), especially if they smoked or used other drugs themselves\(^9\).

Parents have reported feeling that their general ignorance about ATODs precipitated their inability to help their children through adolescence\(^{422,424}\). Likewise parents have been reported to perceive adolescents’ opinions of them as not being credible sources of information; they are inferior to peer-status with respect to ATOD information; and are ineffective at countering pro-ATOD messages\(^{357}\). Interestingly, the children of these parents were also surveyed and the student findings were in stark contrast to those of the parents’, suggesting parents’ ability to influence adolescents is much greater than they perceive.

The overall implication appears to be that parents want to be reassured they have a role to play in the drug education of their children\(^{87,417}\). This information suggests one aim of parent-oriented ATOD educational interventions should be to build the confidence of parents\(^{357}\).

Not a lot appears to be known about parents in regard to their knowledge about ATODs. One formative study attempted to determine knowledge, attitudes, beliefs and behaviours of parents who smoked and had a child in the sixth grade\(^9\). Despite a small sample \((n=60)\), these researchers concluded parents in the sample seemed to have an incomplete knowledge of smoking and health. The parents had adequate knowledge about the addictive nature of smoking, the ease with which children can be addicted and the role of advertising and peer influence in the initiation of smoking. The areas where parental knowledge was incomplete or lacking included; the safety of low tar and nicotine cigarettes; the effect of early initiation of smoking
on the ability to quit or cut down; the effect of parental smoking on the frequency of respiratory illnesses in their children; and the association between cigarette smoking by youth and the possible progression to using alcohol and other drugs. Likewise, other formative research has reported parents’ ATOD-related knowledge to be limited. In regard to illicit drugs in particular, parents’ level of knowledge has been reported to be minimal and superficial. Significantly, parents agree with this sentiment and it has been reported parents often feel ignorant about the current ATOD issues facing their children and feel they view ATOD-use issues differently to their children. Another formative study reported parents underestimated their knowledge about ATODs because testing indicated parents were more knowledgable than their children were. Overall, it seems parents’ lack of information leaves them feeling frustrated and disempowered to deal with such issues. This information suggests that updating parent’s knowledge about ATOD-related issues could enhance their ability to play an effective role in the drug education of their children.

Where parents have been consulted about what they want in an ATOD educational intervention, there is a strong demand for practical, up-to-date, non-medical, non-judgemental, non-alarmist, and understandable information to help them communicate with and help their children manage ATOD-related situations. How to broach the subject of ATODs and how to talk with children about such issues, appear to be common parental needs. The desire for information was greatest among parents with children aged 10-17 years. The most common type of information requested by parents was information on how to recognise the signs and symptoms of drug use.

The need to promote practical parenting skills has also been reported by parents in formative research, as being crucial to building an understanding between parents and their children. This overwhelming response was seen as recognition both of parents’ lack of knowledge and the low quality of inter-generational discussions. While it was accepted young people’s ATOD use did not necessarily reflect poor parenting, many parents blamed themselves (or felt they would blame themselves) if their children used illegal drugs. This tended to result in one-sided conversations with their children. There was pessimism as to whether any productive debate could
take place between parents and children. Even the sceptics, however, conceded that a more neutral structure (such as that imposed by collaboration on homework activities) represented the best chance of success\textsuperscript{417}.

Parent interventions that have focussed on behavioural skill development rather than on simply informing parents about appropriate parenting practices, have reported positive outcomes\textsuperscript{43, 52, 64, 76, 99, 336, 337, 409, 428}. A skills focus is reported to assist parents refine skills that work and modify those that don’t. It also seems parents are attracted to interventions that have minimum time requirements\textsuperscript{84}, are engaging, creative and fun\textsuperscript{100} and address practical day-to-day parenting skills as opposed to those containing theory and statistics\textsuperscript{52}.

How to effectively contact, recruit and engage parents in parenting training are not fully understood\textsuperscript{64, 407}. One answer may lie in how the training is delivered. Several factors appear to contribute to the low participation of parents in ATOD educational initiatives that require attendance at a venue. Collectively, these barriers include parents’ perceptions of the time required to participate; logistical issues facing parents such as transportation, scheduling conflicts and child-care requirements; parents’ work and other family commitments; family privacy issues; health problems; lack of family support; fear of stigmatisation; and the financial cost of programs\textsuperscript{74, 75, 77, 78, 84, 85, 87, 88, 90, 100, 387, 409, 410, 429}.

Flexibility and therefore accessibility of intervention scheduling appears to be an important predictor of initial parental participation. Programs are reported to increase their likelihood of maintaining parent involvement if they are capable of completion at times and places convenient to parents\textsuperscript{45, 52, 78, 85, 104, 210}.

Single parents are reported as being less likely to attend an ATOD educational intervention\textsuperscript{78}. This, however, was reported to be more a function of being the sole person to meet family demands rather than a lack of parental interest. Interestingly, lack of interest or concern regarding ATOD use by children, on the part of parents, was not reported in any of the formative studies considered in this review\textsuperscript{74, 75, 387, 410, 439}. In fact, parents indicated interest and concern, but often did not participate because
the intervention was not offered in a way they could access whilst fulfilling family and work responsibilities.

There are, however, other more accessible ways of structuring parent-training interventions. For example, there is evidence supporting the use of take-home printed materials for parents. It seems parents are more likely to participate in primary prevention interventions if they are home-based.

In terms of recruiting parents it seems they can be reached through their children. Further, if the intervention is disseminated to parents via their children’s school, parents seem more likely to participate. For example, it has been consistently reported that universal parent interventions typically attract only between three to 35% of eligible parents if they are not directly linked to the school curricula. In addition, the strategy of using educational interventions initiated by children at home has also been successful in reaching parents of diverse socioeconomic groups. It therefore seems desirable to liaise with schools and link home-based parent-oriented training interventions with the educational goals for students.

Providing parents with incentives to participate in an intervention seems to be another important predictor of parental participation. In particular, rewarding children for their parents’ participation is promoted as an effective recruitment strategy because enthusiasm expressed by children to their parents has been found to increase parent involvement.

Providing parents with advance notice about intervention content and information regarding its relevance to their roles as parents, are other strategies reported to motivate parental participation. Providing parents with information about existing research, or information about the experiences of other communities in running similar programs, is also reported to enhance parental participation.

While the validity, reliability, objectivity and generalisability of the above formative findings can be challenged, they provide useful insights into the knowledge, needs, beliefs and concerns of parents regarding ATOD use by adolescents. The question of
how the existing knowledge can be translated into increases in the prevalence of protective ATOD-related parenting practices in an Australian context requires the attention of rigorously designed research. The scarcity of information with Australian parents also highlights the need to undertake formative research with parents prior to the development and implementation of a parent-oriented ATOD educational intervention. Seeking ways to recruit and engage a high percentage of Australian parents in an ATOD program is an important area for investigation because while the majority may be difficult to reach, as discussed earlier, parents have powerful influences on children’s health behaviour\(^{50, 89}\).

2.14 Theoretical Evidence

The rationale for the primary prevention of ATOD-related harm is based on preventing or minimising the occurrence of hazardous and harmful behaviours and is therefore underpinned by public health theory\(^{205}\). In addition to the theoretical explanations of ATOD use-initiation by youth, described earlier in this review, theoretical supports for the successful recruitment of parents and also for the design, diffusion and implementation of parent-oriented educational interventions are also important to this research.

While theoretical support for the design of parent-oriented ATOD educational interventions lies primarily within Social Cognitive Theory\(^{201}\), components of other contemporary education and communication theories are also relevant. Social Cognitive Theory (SCT) evolved from Social Learning Theory\(^{201}\) and suggests that social influences such as role models and societal expectations (normative standards) can significantly alter health behaviours. This theory has become a dominant model for understanding and modifying health-related behaviours\(^{431}\).

SCT has several domains including parents’ confidence and self-efficacy regarding their ability to perform the specific behaviour. The extent to which parents perceive the specific behaviour to be important is another domain of SCT, as is their knowledge of the health issue and possessing the skills to perform the specific behaviours is the final domain\(^{203}\). In terms of enhancing parent-child ATOD-related communication, parents in the first instance need to feel confident in their ability and skills to talk with their children about such topics. Anticipating these discussions
with their child to be positive experiences is also important. While parents may feel confident about talking with their child about a range of other topics, as explained earlier in this review, parents often do not feel confident when the topics are ATOD-related.

Moreover, the elements of SCT influence behaviour in an interactive manner. A parent with a high self-efficacy regarding ATOD-related communication with their child will be more likely to do so if he or she has strong positive outcome expectancies and also possesses the necessary knowledge and communication skills. Possession of such skills is likely to increase opportunities to execute the behaviour and in turn increase the associated self-efficacy.

Self-efficacy is a particularly important theoretical concept embedded within SCT. This construct was developed to predict and explain individual health behaviours, and is described as the conviction that one can successfully execute the behaviours required. The expectation of personal mastery and success partly motivates an individual to engage in a particular behaviour and such outcome expectancies, are a key element of self-efficacy and include the perceived anticipated consequences of a behaviour (both positive and negative). In contrast to more global personality attributes such as self-esteem, self-efficacy is task and context specific. Individuals are not self efficacious in general, rather their sense of efficacy is tied to specific behaviours and situations. High parenting self-efficacy has been reported to be strongly associated with the parental capacity to provide an adaptive, stimulating and nurturing child-rearing environment.

Another predictive factor in SCT is the performance of the target behaviour, because strong self-efficacy and positive outcome expectancies are often insufficient to initiate or maintain a specific behaviour. Specific cognitive or behavioural skills are usually also required. Successful performance increases self-efficacy and provides opportunities to experience reinforcing outcomes.

The process people undergo when changing their health-related behaviours can be explained using the Health Belief Model. This model was designed to explain health behaviour by better understanding beliefs about health. It suggests a decision to
undertake a health action, such as participation in an ATOD parent-training program and subsequently talking with children about ATOD, will not be made until the individual is psychologically ready. This readiness to act is derived from the interaction between four beliefs. The extent to which an individual feels susceptible to a condition or problem and how severe the negative consequences of the problem are perceived to be represent the perceived threat. In this research, this perceived threat translates to mean parents appreciate and personalise the real possibility of their own children using ATODs and are sufficiently concerned about the potential resultant harm.

Once a threat is perceived, the health behaviour will occur only the person perceives a course of action is available, believes such action will reduce susceptibility, or minimise the consequences, and also believes the benefits of taking action outweigh the costs or barriers. The application of this model to the task of enhancing parent-child communication about smoking cigarettes and drinking alcohol involves assisting parents to believe their children are at risk of ATOD use and the consequences of such are potentially life threatening. Supportive cues for action are required in order to trigger parental participation in a ATOD-related parent training intervention and the parents must believe that communication with their children about ATOD will minimise the risk of their children experiencing ATOD-related harm. Parents also need to believe the benefits of participating in the intervention will outweigh the potential costs and barriers, such as the time commitment required to finish the intervention. For example, parents’ perceptions of the benefits of the intervention have been reported to influence parents’ susceptibility and inclination to participate in parenting programs. Finally, if they are to adopt the behaviour of communicating effectively with their children, parents need to believe in their ability to do so. In this regard there clear links between the Health Belief Model and the SCT.

Choice Theory was also relevant to this research. Enabling and preserving a person’s right to choose what they do has been shown to be a condition that contributes to the success of interventions. The condition of participant choice has also been shown to contribute to participants’ liking of the
activities/intervention\textsuperscript{91, 437}. The opportunity to choose among alternatives is reported to be positively reinforcing\textsuperscript{92, 93}. Further, when people are provided with choice, they may also perceive increased control and may then attribute the motivation to participate to themselves. This attribution may influence their liking of the behaviour and the rate of engaging in the behaviour\textsuperscript{85}. The relevance of Choice Theory to parent-oriented ATOD intervention research, is that if parents are provided with choices in regard to the nature of the intervention (via offering a choice of intervention options) then the likelihood of the behaviour change happening as promoted in the intervention is enhanced.

Communication plays an essential role in most health promotion programs. As discussed earlier, however, parent-child communication about ATOD is often a daunting task for parents. The topic itself often arouses fear for parents, and their knowledge about what topics to talk about may be limited and/or conflict with their long-held personal beliefs. While different disciplines utilise various communication models, the health education models of communication are particularly relevant to parent-oriented intervention research. Such models involve an exploration of the components of behavioural intention, which influence a parent's willingness to communicate with their child about ATODs. The Communications for Persuasion Model\textsuperscript{438} is particularly relevant because it describes stages a parent must be persuaded to pass through in order to assimilate the desired behaviour, which in this case, is to talk with their child about ATOD and focus such discussions on smoking cigarettes and drinking alcohol.

The first stages of this model include gaining parents' attention and exposing them to the specific health promotion message. The next stage involves the development of parental understanding and an appreciation that talking with their pre-adolescent children about smoking cigarettes and drinking alcohol is important, personally relevant and beneficial for them and their children. The next stages of the Communications for Persuasion Model includes parental acceptance of the change, thinking about and remembering it and continuing to agree with it. At this point parents make decisions, about their ATOD-related communication with their children, based on what they have learnt and then carry out the behaviour. Upon receiving reinforcement for talking with their children about smoking cigarettes and
drinking alcohol, this theory posits that parents eventually accept the communication behaviour into their lifestyle\textsuperscript{438}.

The Theory of the Diffusion of Social Innovations was applied in this research because it defines the conditions and processes by which new ideas and practises become adopted in a culture or subculture. The main elements in this model include the innovation (defined as an idea, practice or object that is perceived as new by an individual or other relevant unit of adoption) that is communicated through certain channels over time among members of a social system\textsuperscript{439,440}.

In the case of this research the innovation was a parent-targeted educational intervention disseminated to parents via schools. This theory provides a staged model to describe the communication behaviours that influence the diffusion of innovations. The stages occur sequentially and are directed at encouraging awareness of the innovation among the potential adopters; facilitating decisions about adopting the innovation; assuring implementation of the innovation; and encouraging institutionalisation or maintenance of the innovation over time by the adopters\textsuperscript{441}. Therefore factors affecting the diffusion of an innovation should be considered when the dissemination and implementation of educational interventions are planned\textsuperscript{401,442}.

Enhancing parent-child ATOD-related communication is one behavioural strategy that can be implemented to prevent and/or minimise hazardous and harmful ATOD use by children. As discussed earlier and illustrated in Figure 2, components of the Social Cognitive Theory, the Health Belief Model and the Communications for Persuasions Model can be applied to the development of such an intervention.
Figure 2: Implications of relevant theoretical evidence for the content of an ATOD educational intervention for parents

<table>
<thead>
<tr>
<th>Knowledge components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why talking about ATODs with children is important (SCT)</td>
</tr>
<tr>
<td>Children want parental guidance re: ATOD-related issues (SCT)</td>
</tr>
<tr>
<td>Identify drug-related topics that should be discussed with children (SCT)</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Attitudinal components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self efficacy re: parental influence over children’s ATOD-use decisions (SCT)</td>
</tr>
<tr>
<td>Self efficacy re: parental ability to communicate with children about ATODs (SCT)</td>
</tr>
<tr>
<td>Parental confidence about what topics to talk about with children (SCT)</td>
</tr>
<tr>
<td>Parental anticipation of positive outcomes when talking with children about drugs (SCT)</td>
</tr>
<tr>
<td>Parental belief talking with children will make a difference (SCT)</td>
</tr>
<tr>
<td>Increase parental readiness to communicate with children about ATODs (HBM)</td>
</tr>
<tr>
<td>Encouraging parents to believe their children may be at risk of using ATODs (HBM)</td>
</tr>
<tr>
<td>Encouraging parents to appreciate the magnitude of the harm caused by alcohol and tobacco use (HBM)</td>
</tr>
<tr>
<td>Recommending parenting strategies (parent-child communication) (HBM)</td>
</tr>
<tr>
<td>Encourage parents to weigh the benefits of parent-child communication about drugs against the potential costs of not doing so (HBM)</td>
</tr>
<tr>
<td>Encourage parents to believe in their ability to take the required action (parent-child communication) (HBM)</td>
</tr>
<tr>
<td>Gaining parental attention (CPM)</td>
</tr>
<tr>
<td>Appreciation that parent-child communication about alcohol and tobacco is important, personally relevant and beneficial for both parents and children (CPM)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposing parents to a specific health promotion behaviour (parent-child communication) (CPM)</td>
</tr>
<tr>
<td>Communication skills rehearsal (SCT)</td>
</tr>
<tr>
<td>Carry out the behaviour (CPM)</td>
</tr>
<tr>
<td>Receive positive reinforcement for parent-child communication (CPM)</td>
</tr>
<tr>
<td>Incorporate parent-child communication about ATODs into their lifestyle (CPM)</td>
</tr>
</tbody>
</table>

Key

CPM = Communications for Persuasion Model

HBM = Health Belief Model

SCT = Social Cognitive Theory

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2.15 Chapter Summary

Regular long-term use of tobacco and hazardous alcohol use are clearly responsible for the greatest amount of drug-related harm in Western Australia\textsuperscript{127, 134, 136, 443}. The need to focus on the prevention of such harm with strategies that utilise a public health philosophy is widely supported\textsuperscript{170}. There appears to be consensus in the literature while treatment responses are necessary, the more cost-efficient prevention strategies specifically targeted at youth are equally, if not more important\textsuperscript{50, 71, 180, 181}. Primary prevention utilising a risk-focussed approach assists adolescents with the choices they make and is generally considered the most promising route for achieving a reduction in adolescent ATOD-use problems\textsuperscript{16-18}. Harm minimisation is the philosophical basis of the current Australian National Drug Strategic Framework in which strategies targeting youth are considered a priority\textsuperscript{174, 175}.

There is widespread agreement in the literature that schools present an ideal setting for reaching a majority of youth and the responsibility for educating children about ATOD use should be shared by the family, school and community\textsuperscript{19, 32, 46, 48, 122, 237, 277}. Further, strategies designed to improve youth health have been shown to be more successful if they are implemented in the context of a whole school approach and include a multifaceted strategy\textsuperscript{274, 275, 279, 281, 282}. The Health Promoting School Framework is made up of three broad strategies including the provision of health education curriculum; implementation of health-related policies (or other structural changes) within the school environment; and facilitating community involvement. Parent involvement and education plays a significant role in the Health Promoting School Framework\textsuperscript{46}.

There are consistent research findings regarding the effect of parenting factors on the initiation of alcohol and tobacco use by children. Parents have both direct and indirect influences on their children’s behaviour and can serve a protective function even within disrupted communities\textsuperscript{1, 13, 21, 66, 67, 150, 163, 184, 208, 220, 288-293, 307, 311, 444, 445}. Direct parental effects arise through role modelling and through social reinforcement (i.e., the prescription of appropriate norms and standards). Children learn to use or not use tobacco and alcohol according to whether these behaviours are approved and sanctioned by others. Parental participation in ATOD use has been shown to predict children’s use. Parents’ attitudes and standards about ATOD-use are also important.
influences, although evidence is unclear about whether attitudes or behaviours are more salient.

Parents have an indirect influence on their child’s risk of ATOD-use initiation by virtue of how they manage their family. This indirect influence appears to arise from parental behaviours and interactions with their children. The quality of the parent-child relationship is salient. In particular, parental monitoring of children’s activities, parent-child closeness and a parental communication style that is ‘authoritative’ are protective mechanisms. Non-involvement of parents in peer selection, poor family management techniques (in particular, a lack of monitoring of children’s activities), inappropriate discipline practises, and lack of closeness between parent and child are aspects of parental behaviours that appear to increase the child’s risk of initiation of ATOD use. Disrupted, chaotic and coercive parenting is also associated with ATOD-use initiation by children.

There was support in the literature regarding the importance of parents’ influence on the health behaviour of children and the mechanisms of this influence. There was also agreement regarding the parenting factors that appear to either predict or protect children’s drug-use initiation and problems. There is also agreement this information should be conveyed to parents.

A literature search revealed many programs that explicitly targeted parents in an attempt to reduce the onset of youth ATOD use by directly focussing on parenting skills. While the number of such interventions appears to be increasing, relatively few had been subjected to rigorous efficacy or effectiveness studies. This seemed to be especially so for those addressing how to improve parent-child communication about ATOD.

In spite of what is known about children’s initiation of ATOD use, little is known about parents’ perceptions about how much they can influence their children’s ATOD use and the role they can play in the primary prevention of hazardous or harmful ATOD use by their children.
While parents seem to be aware that young people use ATODs, there appears to be low levels of parental awareness of the amount of actual use by their children. Despite high levels of concern about ATOD use, many parents do not personalise this concern\textsuperscript{30, 87, 88, 423, 446}. There appears to be low levels of self-perceived parental control over children’s ATOD use\textsuperscript{9}. Generally parents report feeling ill equipped to tackle the issues of ATOD use and feel isolated from other parents\textsuperscript{87}. Parents’ perceptions of their efficacy in succeeding in their preventive efforts appear to be low\textsuperscript{417}. While some researchers consider that parents seem to have, or believed they had, an incomplete knowledge of ATODs and health\textsuperscript{9, 424, 446}, others suggest parents may underestimate their knowledge about ATODs\textsuperscript{423}. Further, it has been reported children perceive parents to be better equipped to talk about drugs than parents give themselves credit for and parents are usually more knowledgeable about the topic than their children\textsuperscript{423}.

Another interesting finding is that although parents feel they should talk with their children and their children should talk with them about ATODs, there is disagreement over whether this actually takes place\textsuperscript{423}. It appears parents think they have talked about the subject, and yet they have not engaged with their children on a level that is registered by their children\textsuperscript{423, 446}. Overall, these findings suggest that there is much greater scope than is generally recognised for parents to be more active in their children’s ATOD education than they are currently.

Of those parent-oriented interventions that had been subjected to empirical investigation, most were constrained by methodological shortcomings and/or difficulties in recruiting and maintaining substantial parent participation\textsuperscript{42, 69, 78, 89, 90, 277, 402, 404}. Two interventions, where parental participation resulted in positive effects on parent-child communication about ATOD use, were identified\textsuperscript{403, 107}. Both were conducted in North America and suggest promise for parent training as a primary prevention strategy to minimise ATOD-related harm.

The Australian experience with the implementation and evaluation of such parent education is limited particularly in the domain of parent-child communication regarding ATOD. One recently evaluated parenting intervention in Australia has shown some promise reporting positive parenting outcomes. The results, however,
were limited by lack of random assignment, non-random attrition and group inequivalence. In addition, the positive results were not sustained at 24 months post intervention\textsuperscript{90}.

Involving parents using school-based resources is desirable but how to effectively contact, recruit and engage parents is not fully understood. Seeking ways to recruit and engage a high percentage of Australian parents in such a program is an important area for investigation because, while they may be difficult to reach, parents have persuasive and powerful influences on children’s health behaviour. The literature contained some guidelines regarding potential predictors of parental participation and future parent-oriented interventions should capitalise on this information. For example, consultation with parents during the formative stages of a project (prior to developing and implementing an intervention) to determine their needs and preferences was suggested as a means to recruit and engage a greater proportion of parents\textsuperscript{409-411}.

Finally, the theoretical bases of both the formative and impact aspects of the randomised control trial conducted in this research were identified. These included SCT\textsuperscript{201, 203}, the Health Belief Model\textsuperscript{433}, Choice Theory\textsuperscript{437}, the Communications for Persuasion Model\textsuperscript{438}, and the Diffusion of Social Innovations Theory\textsuperscript{439, 440}. 
CHAPTER 3: EXPLORATORY STUDY METHODS

3.1 Introduction

Factors associated with parental involvement in parent-oriented ATOD-related educational interventions do not appear to be well described in the literature\(^{45}\). Hence an exploratory study was considered necessary to identify strategies to increase parent participation\(^{47}\). Approval was obtained from the Human Research Ethics Committee of Curtin University (Approval # HR 57/2001). The first part of this research therefore consisted of consultation with parents regarding the design and content of an ATOD educational intervention. Presented in this chapter is the methodology used to collect these exploratory data. The second part of this research involved merging the exploratory data with information from previous similar research to develop a drug-related educational intervention for parents. The intervention was subsequently implemented and its feasibility and impact on parent-child drug-related communication were evaluated in a randomised comparison trial. (The methodology of the Randomised Comparison Trial is presented in Chapter 5.)

3.2 Research Objectives

The objectives of the Exploratory Study were to identify:

- Parents’ perceptions of the term ‘drugs’.
- The type of ATOD educational program preferred by parents of Year 6 children.
- The optimal duration, frequency and timing of an ATOD educational program for parents of Year 6 children.
• Incentives to recruit and maintain parental participation.
• Barriers preventing parental participation.
• Strategies to address barriers related to recruiting and maintaining parent involvement.
• Factors that prevent or discourage recruitment of fathers and ways of recruiting more fathers.
• ATOD-related content and activities preferred by parents.
• The acceptability of using a choice of intervention materials as a way to recruit parents.

3.3 Sampling Method, Recruitment and Sample Size
Consultation with a target group can take several forms and there exists a range of small group discussion techniques. Such techniques vary from the unstructured to the tightly organised and are reported to make the group decision making process more formal and allow data to be gathered in a more structured way.

There was some disagreement in the literature regarding the optimum group size for conducting effective group discussions for formative research purposes. Recommendations for the ideal minimum number of participants ranged from four to nine people, with the ideal maximum ranging from seven to 15 participants.

There also appeared to be few widely accepted rules about who to include as participants in a structured discussion group, the exception being that they should be knowledgeable about the topic being discussed. Those selected should be representative of, and knowledgeable about, the target group in question, which in this case were parents of Year 6 children. In Western Australia, such children are usually 10-11 years of age.

Consistent with similar research, parents were recruited to this Exploratory Study via schools. To select parents of Year 6 children, five metropolitan government primary schools, with a 1998 Year 6 enrolment of 70 or more students, were randomly selected from the 1998 Western Australian Schools Alphabetical List, using a Table of Random Numbers generated by SPSS (Version 8.0). Because
parents with a child in Year 6 in 1999 would be eligible to be selected for the sample of the main study of this research (ie, the randomised comparison trial) only parents who had a child in Year 6 in 1998 were eligible for the Exploratory Study sample. The likelihood of parents who participated in the Exploratory Study being included in the sample for the subsequent Randomised Comparison Trial was, therefore, minimised.

As per the policy requirement of Education Department of Western Australia, the Principals of the first three randomly selected eligible schools were contacted by telephone. The nature of the research was described and the Principals were asked for permission to contact parents of the Year 6 children. All three Principals agreed to participate and provided the names of the Year 6 teachers (so written communication could be personally addressed) and the total number of Year 6 students in each class. This process provided access to over 200 parents hence the remaining two schools were not contacted.

Research packs were compiled for each school. These contained a letter addressed to each school Principal and an individual pack for each of the Year 6 teachers. The packs for the teachers contained a personally addressed letter with instructions for the teacher to distribute a letter of invitation to parents and a sticker to each Year 6 student in their class. Teachers were also asked to inform students that they could get another sticker if they delivered the letter to their parent/s/carer and returned their parent’s response to the teacher. Teachers were asked to collect the responses and return them to the Principal ready for collection by the researcher. Each Principal and each Year 6 teacher was provided with a small incentive (confectionery) as a thank you for their time.

A total of 213 parents/carers of Year 6 children were invited to participate. Incentives including instant lottery tickets and light refreshments were offered to parents to encourage them to attend a discussion group meeting. Every parent who indicated he or she would attend a meeting (n=72) was contacted by telephone the day before the discussion group was scheduled to take place, to confirm his or her attendance. Parents who participated in the discussion groups provided active consent prior to participation.
Parents are reported to appreciate flexible scheduling of meetings\textsuperscript{85}. Parents in each school were therefore offered a choice of times to attend. In addition, different venues were used and discussion groups were scheduled for different days of the week. As shown in Table 3, eight discussion groups were planned.

Table 3: Schedule of discussion groups

<table>
<thead>
<tr>
<th>School #</th>
<th>Day of the week</th>
<th>Time and venue</th>
<th>Time and venue</th>
<th>Time and venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuesday</td>
<td>9.15am-11.15 am On school site</td>
<td>1.00pm-3.00pm On school site</td>
<td>7.00pm-9.00pm Local community centre</td>
</tr>
<tr>
<td>2</td>
<td>Wednesday</td>
<td>9.00am-11.00am On school site</td>
<td>1.00pm-3.00pm On school site</td>
<td>6.30pm-8.30pm Local community library</td>
</tr>
<tr>
<td>3</td>
<td>Thursday</td>
<td>9.00am-11.00am Local community library</td>
<td></td>
<td>7.00pm-9.00pm Local community centre</td>
</tr>
</tbody>
</table>

Two of the scheduled groups were cancelled due to insufficient parent response and two additional discussion groups were scheduled to meet the demand for one of the evening discussion groups.

Parents who indicated they wanted to attend the cancelled sessions were contacted by telephone and asked if they could move to another timeslot. Where the other meeting times were not suitable, the parent was asked if he or she would be willing to complete a mailed questionnaire instead. Questionnaires were subsequently mailed to six parents, accompanied by a personalised handwritten letter, a reply-paid pre-addressed envelope and an instant lottery ticket incentive. One of the mailed questionnaires was returned without any follow up. After two weeks, the other parents who had been mailed a questionnaire were telephoned and two additional questionnaires were subsequently returned.

After the discussion groups had been conducted, personally addressed thank you letters were forwarded to the Principals and teachers who assisted in recruiting the parents and also to the managers of the non-school venues where the discussion groups were held. These managers offered their premises free-of-charge.
After the eighth discussion group had been conducted, clear patterns in parental responses emerged and no new information was generated. For these reasons no additional groups were organised. The literature suggests that when a clear pattern has emerged and subsequent groups produce only repetitious information no new groups are needed. This 'saturation point' typically occurs after conducting between four and six groups\textsuperscript{436}.

3.4 Instrumentation
A questionnaire and structured group discussion of parents’ responses were used to collect quantitative and qualitative data regarding their opinions and preferences regarding the frequency, intensity, time and type of the ATOD educational intervention. Thirteen questions addressing the objectives of the Exploratory Study were developed and presented as a self-complete questionnaire. This questionnaire provided a structure for the discussion groups.

As recommended in the literature, care was taken to ensure the questions were phrased in simple language, and each question unambiguously focused on one topic. In addition, the questions progressed from being general to more specific in nature\textsuperscript{446-450}.

The questionnaire and related discussion group protocol were reviewed for face and content validity by an expert panel. This panel consisted of 10 people with expertise in one or more of the following areas: formative research techniques, facilitation of structured small group discussions, parent education, ATOD-use issues, and school/education issues. Minor adjustments were made to the questionnaire, protocol, invitation letter, and consent form based on this group’s recommendations.

Consistent with the methods used in previous formative research\textsuperscript{413}, the test-retest reliability of the questionnaire items was not determined due to the open-ended nature of most of the questions.

As with any data-generating process or tool, it was important to test the questionnaire prior to use because piloting often provides useful and often unexpected insights\textsuperscript{448}. Accordingly, the discussion-group protocol and questionnaire were tested with seven
parents selected from a convenient, government metropolitan primary school. Each of these parents had a child in Year 6 and was not part of the Exploratory Study or Randomised Comparison Trial samples.

Two amendments were made as a result of piloting the questionnaire and protocol. The questionnaire item addressing what factors may discourage or prevent fathers from being involved in a parent-oriented ATOD educational project was changed from being open-ended to closed-ended. The meeting to test the questionnaire and protocol was attended mainly by mothers and they appeared reluctant to suggest reasons why fathers may not be involved in such a program. They agreed they would feel less disloyal and the item would be easier to complete, if a range of answers was provided and they could tick a box. The categories for the closed-ended questions were developed from the discussion held with these parents. The final questionnaire used to collect the Exploratory Study data appears as Appendix 1.

The second modification was related to the discussion group protocol. As the discussion progressed, it became obvious that one parent was currently dealing with illicit drug use by one of her children and she became somewhat upset as a result. Other parents provided reassurance and also indicated they supported her views and actions. As a result of this unexpected outcome, another ground rule was inserted into the discussion group protocol. This new rule explained that discussing ATOD use can raise personal issues for parents and this might become emotional for the person who tells his/her experience or for others in the group. For this reason, the group leader was prepared to interrupt and stop any discussion that was becoming too personal, but was happy to discuss any issues privately after the discussion group had finished. The discussion group protocol used to collect the Exploratory Study data appears as Appendix 2.

3.5 Discussion Group Procedure
As recommended^{457}, a qualified educator who had extensive relevant experience and was also a parent facilitated the discussion groups. The group leader's role was to stimulate discussion, avoid steering the group toward a preferred solution, ensure participants were able to express their views, and prevent anyone from dominating the discussion^{396, 447, 451, 453, 457}. Also, as recommended in the literature, an assistant
noted the ideas generated by parents and provided support with flipcharts and whiteboards⁴⁴⁸.

The standardised Discussion Group Protocol was used to guide the parents through the data collection process. The group leader began by conducting an icebreaker activity to generate some rapport and cohesiveness amongst the group and then presented background information as stipulated in the Discussion Group Protocol. Ground rules for the session were read aloud to parents and they then completed the questionnaire items one by one. After parents had completed an item (or in some instances, two or three items) they were asked to share their ideas with the whole group and their responses were recorded on flip charts. Data were therefore collected from the written questionnaires and also from the content of the flip charts.

For the purpose of investigating issues related to recruitment in greater depth, the Nominal Group Technique⁴⁵⁷ (NGT) was used to structure the discussion of two items from the questionnaire. These items addressed the issues of how best to recruit parents to an educational intervention and suggestions to reduce attrition in such a program.

NGT was utilised because it is considered to be a productive formative research tool⁴⁹⁶, ⁴⁴⁸, ⁴⁵¹-⁴⁵³, ⁴⁵⁸-⁴⁶⁰ and thought to be more effective than either the Delphi Technique or the focus group process for generating ideas, and getting equal participation from group members⁵⁶. The major reason why only two questionnaire items were processed using NGT was because previous research reported that no more than two to four open-ended questions can be processed effectively before the occurrence of group fatigue⁴⁵³.

The implementation of the NGT has distinct steps and involves participants pooling their judgements in a systematic but independent way. Discussion and interpersonal communication during the decision making process was restricted. Parents were all physically present as in a traditional interacting group and did discuss some issues together, but they also had periods where they operated independently writing their own responses on the questionnaire. They therefore did not operate in the same way as a traditional group and hence were only ‘nominally’ a group⁴⁶⁸, ⁴⁵⁰, ⁴⁵², ⁴⁶⁰, ⁴⁶¹.
The recommended structured process of NGT was implemented by the group leader\(^6\, 448, 450-453, 457, 462\). After parents had silently and individually completed the questionnaire item, all responses were listed, without any discussion, on a flip chart. Parents were then asked to discuss the list of responses and group similar ideas together. The final stage of the NGT process involved individual ranking of ideas and voting for their preferred recruitment strategies with coloured dots. The votes were then tallied to establish group priorities\(^448, 452, 460\).

As some of the discussion groups progressed, it became clear that some parents had misunderstood the invitation letter, and had attended the meeting to receive educational information about young people and ATOD use. In order that the expectations of these parents were met, the group leader provided information to parents after the questionnaires and discussion had been completed.

### 3.6 Data Analyses

As recommended in the literature\(^446\), the contents of the flip charts and questionnaire responses were analysed in a way similar to that used for focus group data. This involved organising the raw data into working order and developing coding strategies. Using this process, the raw data were shaped and reduced and common patterns and themes identified.

Categorical data generated by this process were cleaned to ensure their entry and coding had been performed correctly. Frequencies were computed to detect incorrect entries. In all cases, incorrect entries were further examined and verified using the original questionnaires. Frequencies were also assessed to verify responses were within the defined range of possible values. Due to the small size of the data set (n=51) each column and row of data were manually checked for outlying scores. Finally, five questionnaires were selected using a Table of Random Numbers generated by SPSS\(^455\), and manually checked for data entry scores. All computer analyses of the Exploratory Study data were undertaken using SPSS for Windows Software, version 8.0\(^455\).

Investigator bias is a particular threat to the validity of formative research data, and particularly so where the researcher has substantial flexibility in selecting and
categorising key elements from detailed data\textsuperscript{64}. In accordance with recommendations in the literature, an attempt was made to maximise the validity of the coding procedure used to convert open-ended responses into categorical data. As recommended in the literature\textsuperscript{34}, a colleague of the researcher coded the open-ended responses using categories listed in a coding manual. Ten questionnaires were selected by generating a Table of Random Numbers using SPSS (Version 8.0)\textsuperscript{65}, coded by the colleague and the differences between the two coders were assessed.

While Kappa statistic\textsuperscript{63} is a common measure of coding validity, due to very high levels of agreement (in many instances 100%) between the two coders, percentage agreement was used instead. The percentage agreement between the two coders ranged from 71-100% with the mean agreement being 85.2%. This was consistent with similar research where between 88 to 95% agreement between coders was reported\textsuperscript{64}.

The categorical data were then described and interpreted. These data were supported with qualitative information in the form of direct parent quotations sourced from the flipcharts. Results and discussion related to the Exploratory Study are presented in the next chapter.

3.7 Strengths and Limitations

Structured group discussions have several advantages in terms of data collection. They are a cost- and time-effective means of obtaining in-depth information that may be useful in developing meaningful public health risk-reduction programs. Further, the interaction between group members may also result in insights that would not likely be obtained if participants were interviewed individually\textsuperscript{96}.

This method of data collection also had limitations\textsuperscript{96} and the generalisability of the findings of this Exploratory Study should be considered in the light of these. The small sample size (n=51) and non-probability sample selection method were obvious limitations. While the schools from which parents were recruited were randomly selected, the parents were not. In an attempt to address this threat to validity, criteria for the sample selection were developed and rigorously applied. In addition,
incentives were provided to teachers, students and parents (as described earlier in this chapter) to recruit as many of the eligible parents as possible.

Despite these strategies, issues related to convenience and parents' receptivity to participation would likely have played a role in the sample recruited and parents who attended the discussion groups were largely self-selected. It was likely, that self-selection bias limited the external validity of the findings because there may have been unique characteristics about parents who declined to participate. The findings of this Exploratory Study represent only the views of parents who participated\textsuperscript{64} and these limitations have been reported in previous studies of this nature\textsuperscript{51, 84, 87, 410, 453, 464}.

Another limitation of this study is non-respondents were not followed-up due to practical and budgetary constraints. The likelihood of response bias was therefore increased. Parents who declined to attend the discussion groups may have been able to provide useful insights regarding both effective strategies to recruit parents and the nature of the parent-directed educational intervention.

Socially desirable responses from parents and the subsequent bias may have also reduced the validity of the findings. Likewise, parental reluctance to discuss ATOD-related issues in a public setting may have also had an impact. The extent of the impact of these factors was not able to be determined. An attempt was made, however, to minimise their contribution by asking parents to complete the written questionnaire items silently prior to the items being discussed by the group.

The use of NGT to process parents' responses to two of the questionnaire items had advantages. It permitted parents to discuss issues as a group but did not restrict independent thinking. Further, group discussions were efficient as they remained task-focussed and preliminary discussion was not required. A large volume of ideas was generated in a short space of time and the influence of dominant members was minimised. All ideas were generated silently, all participants were afforded equal opportunity to participate, and voting was conducted by secret ballot. Both the participants and the group leader were provided with immediate feedback and both qualitative and quantitative data were collected. The NGT also restricted the potential influence and interference of the group leader\textsuperscript{448, 453, 490, 465}. 

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While there were several advantages of utilising the NGT to collect information that could be used to guide the development of a parent training intervention, this strategy also had limitations. The highly structured nature of the discussion groups, along with discrete control by the group leader, helped to minimise the inhibitory influences common to interactive problem-solving groups. The possibility existed, however, for the more dominant or dynamic group members to inflict their opinions on some of the more passive participants.

Groupthink and Groupshift phenomena have the potential to affect a group’s ability to appraise alternatives objectively. Groupthink is related to group norms and occurs in situations where group pressures for conformity limit the group’s capacity to critically appraise unusual, minority or unpopular views. Groupshift, a subset of Groupthink, occurs when the group discussion leads to a significant shift in the position of individual members towards a more extreme view. That is, the more conservative individuals become more cautious and the more aggressive individuals take on more risk. Thus, the group process tends to exaggerate the initial position of the group. While an assistant observed each group and recorded comments related to group dynamics, the extent of these influences was not formally assessed and therefore the degree to which they may have impacted on the results is not known.

3.8 Chapter Summary

Formative research is most commonly conducted at the exploratory stages of an investigation where its purpose is to enhance understanding of the phenomenon under investigation and also provide information to refine and improve both data collection instruments and any subsequent intervention. Structured group discussion is reported to be a useful and inexpensive formative research strategy.

Given this information and the knowledge that the factors associated with parental involvement in parent-oriented ATOD-related interventions do not appear to be well described in the literature, the first part of this research consisted of a small exploratory study. The aim of which was to consult parents regarding the design and
process of an ATOD-related educational intervention. This chapter has described the methodology of the Exploratory Study.

Parents were recruited via primary schools and offered small incentives to participate in a discussion group. A self-complete questionnaire was developed, piloted, and then completed by parents who attended a discussion group. Parents’ responses were discussed using a standardised protocol. Both quantitative and qualitative data were collected. Frequency tables of parents’ responses were created. Rank ordering of parents’ responses for the questionnaire items that addressed enhancing recruitment and reducing attrition were determined via the use of NGT.

While the results could not be generalised to other populations or social contexts\textsuperscript{366, 453}, they provide important and practical insights into parents’ preferences regarding the development and implementation of a parent-oriented ATOD educational intervention. They were also consistent with previous research and both of these issues are discussed in the next chapter.
CHAPTER 4: EXPLORATORY STUDY RESULTS AND DISCUSSION

4.1 Introduction
Consultation with parents prior to the development of a parent-directed intervention is recommended in the literature. It has been used in previous research to match the nature and content of interventions with the needs and preferences of the target group. Similarly, this Exploratory Study utilised feedback from parents to investigate their opinions and preferences regarding the frequency, intensity, time and type of a parent-oriented ATOD-related educational intervention. This chapter presents the results of the parent consultation using the framework provided by the Exploratory Study objectives identified in Chapter 3. The findings are discussed in light of previous research.

4.2 Research Objectives
The objectives of the Exploratory Study were to identify:
- Parents’ perceptions of the term ‘drugs’.
- The type of ATOD educational program preferred by parents of Year 6 children.
- The optimal duration, frequency and timing of an ATOD educational program for parents of Year 6 children.
- Incentives to recruit and maintain parental participation.
- Barriers preventing parental participation.
- Strategies to address barriers related to recruiting and maintaining parent involvement.
Factors that prevent or discourage recruitment of fathers and ways of recruiting fathers.

ATOD-related content and activities preferred by parents.

The acceptability of using a choice of intervention materials as a way to recruit parents.

4.3 Response Rate

A total of 213 parents or guardians of Year 6 children from three randomly selected metropolitan government primary schools were invited to participate in a discussion group on the topic of ATOD education for parents. One hundred and ten parents responded, of which 72 indicated they would attend one of the meetings. This represented an initial response rate of 33.8%. Of these, 49 (23%) actually attended a discussion group where they completed the questionnaire and discussed their responses.

A total of 51 questionnaires were completed representing an overall response rate of 24%. While this response rate was very low, the total number of parents consulted (n=51) was at the upper end of the range when compared to previous formative research where the sample sizes have ranged from 20 to 56 parents.

4.4 Sample Characteristics

Of the total sample (n=51), the majority were female (80.4% n=41) and the mother of the child in Year 6 (80.4% n=41). Of the 19.6% (n=10) of the sample who were male, 89.8% (n=9) were the father and 10.2% (n=1) were the stepfather of the child in Year 6. The majority of the sample (70.6% n=36) was between the ages of 35-44 years, 15.7% (n=8) were aged 45 years and older, and 13.7% (n=7) were aged under 34 years. With regard to highest level of formal education, 35.3% (n=18) of parents had completed Year 10 at secondary school and 19.6% (n=10) had completed Year 12. Some parents (21.6% n=11) had completed a qualification at TAFE and fewer (13.7% n=7) had completed a university-level qualification. Almost 10% (9.8% n=5) of the sample had completed a formal qualification other than the above. These included qualifications such as a beauty therapist, small business certificate or a business college qualification.
Using postcode data as a proxy measure of relative socioeconomic disadvantage in Australia\textsuperscript{472}, 25.5\% (n=13) of the sample were below and 74.5\% (n=38) were above the mean for Australia. All respondents (n=51) were within one standard deviation of the mean for relative socioeconomic disadvantage.

Thirty-nine per cent (n=20) of the sample had two children in their family, 27.5\% (n=14) of the sample had three children, 19.6\% (n=10) had four children, and six per cent (n=3) had five children. Eight per cent (n=4) of parents who responded had only one child. In almost 59\% (n=30) of cases, the Year 6 child was the oldest child in the family. In 17.6\% (n=9), 15.7\% (n=8) and eight per cent (n=4) of cases, respectively, the child in Year 6 was the second, third and fourth child.

4.5 Results and Discussion

For ease of interpretation, each of the objectives of the Exploratory Study is addressed in sequence in this chapter. Further, the results and discussion pertaining to each objective are presented conjointly.

Parents’ perceptions of the term ‘drugs’

The question of ‘When you hear the word drugs what do you think of?’ was included to define terminology for the remainder of the discussion group and to remind parents that all drugs (both legal and illegal) would be addressed in the proposed intervention.

Overall, the responses (n=51) to this item were consistent with those of previous formative research with parents\textsuperscript{192, 418, 426, 473}. That is, most of the responses were negative and centred on the problems associated with illegal drug use. Responses categorised as ‘Drug-caused problems and harm’, were the most frequently mentioned by parents (43.1\% n=22). These responses consisted of terms such as misery, trauma, pain, trouble, hopelessness, ruin life, family and community sadness, family breakdown, violence, fights, AIDS, habit, addiction, overdose and death.

The second most frequent response category was that parents reported feeling ‘Frightened and worried about their children’. Parents indicated they were worried about the possibility of their child being involved with drugs, peer influence, the easy
access to drugs and how they and their children would cope with this issue. These concerns were consistent with the findings of other formative research.202, 421, 474. Twenty-five parents listed responses categorised as ‘Drug names or classifications’ and of these, all contained names of illegal drugs. This preoccupation with and concern about illicit rather than licit drugs, was consistent with the findings of others100, 421. These parental perceptions conflict with prevalence data suggesting that widespread use of alcohol by young people accounts for a substantial proportion of the total morbidity and mortality during adolescence136.

Responses categorised under the heading of ‘Crime’ were mentioned by 17.6% (n=9) of the sample. Stealing, home invasions and prostitution were typical answers. Words associated with injecting drug use such as ‘shooting up’, needles and needles in parks were listed by almost 14% (n=7) of parents. Three parents wrote a definition for the term ‘drugs’ in response to this first questionnaire item and mentioned their mood-altering properties. An equal number of parents (n=2) mentioned the terms ‘dropouts’ and ‘junkies’ or wanted to know from where the money for drugs was coming.

**Type of ATOD educational program preferred by parents of Year 6 children**

To ascertain the type of drug education intervention preferred by parents of Year 6 children, parents were asked; ‘How would you prefer to learn about ATOD?’ Eight options, suggested in the literature, were provided and respondents ranked their top three preferences (n=51). Learning at home was the most preferred option. Forty-seven per cent (n=24) of parents selected this as their first preference. Of these, 35% (n=8) selected helping children with their homework where parents learn at the same time, and 12% (n=3) selected learning at home doing activities that are especially designed for parents to complete independently of their children (Table 4).

This finding was consistent with previous research suggesting parents of school-aged children are difficult to reach using tradition educational delivery methods68, 69, 285, 413, 474, 475. Utilising specific home-based channels for maximising parental involvement has been previously identified as a cue to parent involvement in ATOD prevention activities29, 31, 43, 62, 73, 77, 83, 85, 100, 101, 271, 385, 399, 476. An intervention that is home-based avoids
problems associated with transportation and childcare, which can be barriers to participation\textsuperscript{74, 85, 103, 411}.

Table 4: Type of educational intervention preferred by parents

<table>
<thead>
<tr>
<th>Type of drug education intervention</th>
<th>Selected as 1\textsuperscript{st} pref. (n=51)</th>
<th>Selected as 2\textsuperscript{nd} pref. (n=51)</th>
<th>Selected as 3\textsuperscript{rd} pref. (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn at home helping children with homework where parents learn at the same time</td>
<td>35.3%</td>
<td>26.9%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Learn at home doing activities designed for parents to complete on their own</td>
<td>13.6%</td>
<td>21.6%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Attending parents’ morning at school</td>
<td>17.6%</td>
<td>19.5%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Attending parents’ night at school</td>
<td>10.0%</td>
<td>8.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Attending a workshop at a community centre (ie, not on school site)</td>
<td>10.0%</td>
<td>10.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Watching advertisements on television</td>
<td>9.5%</td>
<td>12.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Attending a workshop on the weekend</td>
<td>4.0%</td>
<td>0.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Reading pamphlets sent by the government</td>
<td>0.0%</td>
<td>2.0%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

Optimal duration, frequency and timing of an ATOD educational program for parents

Three questionnaire items addressed the optimal duration, timing and frequency of an ATOD educational intervention for parents of Year 6 children. Provided on the questionnaire were several options regarding the frequency of an intervention. When asked how often they would like to receive information, if participating in a home-based ATOD educational program, the most frequently selected response (64.7% n=33) was to receive the materials weekly for five weeks. This result was similar to the dose of previous parent-oriented ATOD-related educational interventions where four booklets were disseminated to parents on the basis of one per week or fortnight for four weeks\textsuperscript{43, 100, 101, 399}. It also corresponds with the findings from a cross-sectional study where parents considered that for health-related newsletters to have greatest impact, they should be sent home more regularly than once a month\textsuperscript{75}.

When asked ‘If you were to participate in an ATOD education program where you didn’t have to leave home, approximately how much time do you think you would spend over a 5-week period?’ almost 40% (n=20) of parents indicated they would spend between 20-30 minutes per week (Table 5). This finding was consistent with
previous formative research that reported parents were prepared to spend no more than half an hour per week.

Table 5: Amount of time parents would spend per week participating in a learn-at-home educational intervention

<table>
<thead>
<tr>
<th>Time per week</th>
<th>% of parents (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10 minutes</td>
<td>9.8</td>
</tr>
<tr>
<td>10-20 minutes</td>
<td>17.6</td>
</tr>
<tr>
<td>20-30 minutes</td>
<td>39.2</td>
</tr>
<tr>
<td>30-40 minutes</td>
<td>15.7</td>
</tr>
<tr>
<td>40-50 minutes</td>
<td>7.8</td>
</tr>
<tr>
<td>More than 50 minutes</td>
<td>9.8</td>
</tr>
</tbody>
</table>

As shown in Table 6, the best time to send ATOD educational materials home was identified as during the school term (80.4% n=41). The relationship of this finding to previous research is unknown, as published information could not be found.

Table 6: The best time to send drug education materials home to parents

<table>
<thead>
<tr>
<th>When to send drug education materials home</th>
<th>% of parents (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During one school term</td>
<td>80.4</td>
</tr>
<tr>
<td>During school holidays (excluding Summer holidays)</td>
<td>9.8</td>
</tr>
<tr>
<td>Some during term and some during holidays</td>
<td>5.9</td>
</tr>
<tr>
<td>During the school term then break over the holidays and then more during the next term</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>2.0</td>
</tr>
<tr>
<td>During the Summer break</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Incentives to recruit and maintain parental participation**

Recruiting and maintaining substantial parent involvement have been previously identified as major hurdles for parent-oriented ATOD educational programs. Two questionnaire items addressed the issue of what incentives would recruit and maintain parental participation in such a program. For both questions parents were asked to list three strategies, but not necessarily in priority order.

As shown in Table 7, when asked to list ways to encourage parents to get involved in a learn-at-home educational project, the most frequent response category was the ‘Nature of the intervention’. Parents indicated the materials themselves must be short, require little time to complete, presented in simple language and bright
colours, be interesting and fun with not too much reading. Similar findings regarding the content and presentation of intervention materials were supported in the research literature as an important means of maximising parent participation.\textsuperscript{83, 84, 90, 100, 101, 286, 411}

The second most frequent response category was ‘Use shock tactics’. Parents thought such tactics needed to be used “to make parents realise that ATOD-use problems could happen to their child”, that “their children are at risk”, that “learning about this topic could save your child” and that “prevention was better than cure”. While the use of fear tactics to motivate parents to participate did not appear to be supported in the literature, the need to heighten parents’ awareness of the risk and actual prevalence of children’s ATOD-use behaviours was supported\textsuperscript{24}.

Table 7: Strategies for recruiting parental involvement

<table>
<thead>
<tr>
<th>Motivational strategies</th>
<th>% of parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nature of the intervention</td>
<td>30.1</td>
</tr>
<tr>
<td>Shock tactics</td>
<td>19.2</td>
</tr>
<tr>
<td>Extrinsic incentives</td>
<td>12.0</td>
</tr>
<tr>
<td>Connect the intervention to the school drug education curriculum so parents consider it to be important and part of their child’s education</td>
<td>10.8</td>
</tr>
<tr>
<td>Intrinsic incentives. For example, their participation will benefit their child, school and community</td>
<td>9.6</td>
</tr>
<tr>
<td>Personalise. Eg. personally addressing any correspondence and using parents’ names to make personal contact with parents</td>
<td>7.2</td>
</tr>
<tr>
<td>Consult with parents regarding their time available and needs prior to running the program</td>
<td>3.6</td>
</tr>
<tr>
<td>Provide the children of parents who participate with incentives</td>
<td>4.8</td>
</tr>
<tr>
<td>Other</td>
<td>2.2</td>
</tr>
</tbody>
</table>

This questionnaire item was also processed with parents using the Nominal Group Technique\textsuperscript{457} (NGT) described in previously (Chapter 3). Within each discussion group a list of strategies in order of priority were established. The strategy voted as being the most effective way of recruiting parents was the provision of non-monetary incentives for the children of participating parents. Providing small incentives to the children of parents who participate, has been previously identified as an effective cue to parental involvement\textsuperscript{18, 83, 85, 94}. Rewarding children appears to prompt child-to-parent communication about participation via the child’s interest, enthusiasm, and persistent reminders to parents\textsuperscript{85}. It seems rewarding the children of parents who participate motivates parents to respond and to participate so they do not disappoint
their children. This concept was illustrated in this research when one parent commented "If my kid will get something if I participate, he will nag me to death until I do it".

The strategy voted as being the second most effective way to recruit parents, concerned linking the intervention to the school ATOD curriculum, so parents consider it to be an important part of their child’s education. This finding was consistent with previous formative research where schools were identified as perhaps the most effective channel to reach parents. In an attempt to identify potential strategies to maintain parental participation in a home-based educational program, parents were asked what would encourage them to finish the whole program. The most frequent response was to reward parents who finished. Again, this was consistent with previous research.

Using strategies to personalise the intervention experience for parents was suggested as another means to maintain parental participation and there was some support for this approach in the literature. Table 8 presents parents’ ideas regarding strategies that may help to maintain parental participation.

<table>
<thead>
<tr>
<th>Strategies for maintaining parental involvement</th>
<th>% of parents (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reward parents who finish the program</td>
<td>32.3</td>
</tr>
<tr>
<td>Make personal contact with parents</td>
<td>11.8</td>
</tr>
<tr>
<td>Nature of the intervention: keep it easy, colourful and interesting</td>
<td>10.3</td>
</tr>
<tr>
<td>Remind parents that they are doing the program for the benefit of their children</td>
<td>10.3</td>
</tr>
<tr>
<td>Provide progressive incentives</td>
<td>10.3</td>
</tr>
<tr>
<td>Reward the children of parents who finish</td>
<td>8.8</td>
</tr>
<tr>
<td>Keep parents in touch with each other by setting up a network or meetings</td>
<td>7.3</td>
</tr>
<tr>
<td>Use shocking statistics to keep parents interested</td>
<td>4.4</td>
</tr>
<tr>
<td>Have a local coordinator</td>
<td>1.5</td>
</tr>
<tr>
<td>Promise to provide feedback on the program</td>
<td>1.5</td>
</tr>
</tbody>
</table>

This questionnaire item was also processed at the discussion group meetings using the NGT. Each discussion group established a list of strategies in order of priority. The strategies voted as the most effective ways to maintain parental participation were consistent with those from other research findings and included:
- Encouraging parents to talk with other parents to keep the subject alive.
- Making the program interesting and not boring;
- Providing a certificate at the end.
- Making parents aware they are doing it for the well being of their children.
- Having a local coordinator who contacts parents and reminds them about the project.
- Providing raffle tickets or other incentives for parents who finish the program.

**Barriers preventing parental participation**

To identify barriers that may prevent parents of Year 6 children from participating in an ATOD educational intervention, parents were asked to list three factors that may discourage or prevent parents from getting involved (Table 9).

Respondents stated if the intervention contained “too much lecturing”, “not enough photos”, was “boring, too long and drawn out”, “too time consuming”, “too hard”, or contained “too many statistics or work sheets”, parents would not read the materials. Other formative research has reported parents consider the nature of the intervention materials (ie, they wanted the materials to be clear, fun, non-medical, interactive, colourful, easy to read and use) as an important cue to parent participation^83, 85, 411, 417, 471.

In terms of other barriers to participation, parents listed work, study and family commitments as limiting their time and preventing their involvement. These findings were consistent with those identified in other studies^28, 74, 75, 77, 84, 85, 87, 88, 90, 103, 411, 429, 478. While not measured in this Exploratory Study, in other formative research, these barriers appeared to be largely independent of parent demographic characteristics^74, 84, 103, 429 and especially important for single parents^78 and mothers who work outside the home^84.

Parental apathy and complacency were cited by the respondents of this Exploratory Study, as barriers to participation. Parents explained this by writing things such as “the topic is not a priority for some parents”, “they don’t see a need”, “they think their child is too young or will not take drugs” and “they think it will never happen
to their child.” This lack of parental appreciation of their children’s vulnerability and susceptibility was reported in previous consultations with parents 39, 73, 74, 87, 88, 410, 421. Further, denial that the problems associated with ATOD use personally threatened their children has been cited, as being one of the most important barriers to parental participation 78.

A lack of comfort was also suggested as a potential participation barrier for some parents. Parental comfort and concerns about being judged have also been reported in other formative research as being barriers to parental participation 77, 78, 83, 85, 90, 410. Respondents listed a range of reasons why parents may feel uncomfortable. These included parents feeling they don’t know enough about the topic and feeling embarrassed. Also cited as a cause of discomfort, the location of the meeting may seem threatening to parents. One parent stated “some parents find official places, like schools, a problem”.

Similarly, another factor that may prompt discomfort was parents might feel what they write into the booklets may not be confidential because the booklets may have to be returned to the school. Further, parents may feel they will be judged or stigmatised by attending and participating in an ATOD seminar. Three other potential sources of parental discomfort included some parents wanting to keep their family life private; some parents who smoke and drink feeling uncomfortable; and some parents with low education levels or who can’t read and write feeling uncomfortable.

Table 9: Barriers that prevent parent participation in learn-at-home ATOD educational programs

<table>
<thead>
<tr>
<th>Potential participation barriers</th>
<th>% of parents (n=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The nature of the intervention</td>
<td>34.0</td>
</tr>
<tr>
<td>Time restrictions</td>
<td>28.7</td>
</tr>
<tr>
<td>Parental apathy and complacency</td>
<td>24.5</td>
</tr>
<tr>
<td>Parent discomfort</td>
<td>12.8</td>
</tr>
</tbody>
</table>
Strategies to address barriers related to recruiting and maintaining parent involvement

Parents were asked to write three suggestions for overcoming the problems related to recruiting and maintaining parent involvement. Half of the parent sample (n=26) did not write a response to this item. Of those who did provide a response (n=25), the most frequent group of suggestions related to the ‘Nature of the intervention’ (Table 10). This was consistent with their earlier advice regarding barriers to parental participation. Respondents suggested the intervention should be kept factual, colourful, short and direct with not too much writing and a lot of pictures. In the words of one respondent, “the materials should tantalise the taste buds with pictures and colours”. Parents also reported the materials should not moralise and should contain activities that are quick and easy to do.

Table 10: Strategies to address the barriers related to recruiting and maintaining parent involvement

<table>
<thead>
<tr>
<th>Ways to overcome recruitment/maintenance barriers</th>
<th>% of parents (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of the intervention</td>
<td>41.0</td>
</tr>
<tr>
<td>Use incentives (both intrinsic and extrinsic)</td>
<td>12.8</td>
</tr>
<tr>
<td>Maintain parents’ privacy emphasise the materials are confidential and are for private use only</td>
<td>10.2</td>
</tr>
<tr>
<td>Use shock tactics</td>
<td>10.2</td>
</tr>
<tr>
<td>Emphasise there are no right or wrong answers: it is not a test</td>
<td>7.7</td>
</tr>
<tr>
<td>Provide a taped version for parents with literacy problems</td>
<td>2.6</td>
</tr>
<tr>
<td>Run the program via the local school so parents see it as important</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Factors that prevent or discourage recruitment of fathers and ways of recruiting more fathers

While there is substantial literature suggesting fathers are an important influence on adolescent behaviours, mothers have been the principal participants of previous parent-oriented ATOD educational interventions. To identify barriers to recruiting more fathers of Year 6 children to an ATOD-related educational intervention, parents were provided with forced-choice responses and could select more than one response. The most common response was ‘Fathers’ work commitments’, and this was consistent with other research (Table 11).

Parents who selected the ‘Other’ response option (7.8% n=4) were provided with space to elaborate. Responses included factors such as:
- Fathers believing the children should simply be obedient.
- Fathers genuinely don’t believe their family will be affected.
- Fathers are less aware of drugs.
- Fathers think mothers explain things better.
- Fathers are interested but do not see it as their role.
- Fathers might feel guilty if they can see their use of legal drugs may have to be modified in order for them to participate responsibly.

Table 11: Factors preventing or discouraging fathers’ involvement

<table>
<thead>
<tr>
<th>Factors</th>
<th>% of parents* (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work commitments</td>
<td>84.3</td>
</tr>
<tr>
<td>The mother who usually attends to school matters</td>
<td>51.0</td>
</tr>
<tr>
<td>Father is absent, for example, a single parent family</td>
<td>49.0</td>
</tr>
<tr>
<td>Fathers don’t realise how important it is for them to be involved</td>
<td>41.2</td>
</tr>
<tr>
<td>Fathers are less interested than mothers</td>
<td>13.7</td>
</tr>
<tr>
<td>Other things</td>
<td>7.8</td>
</tr>
</tbody>
</table>

*total exceeds 100% due to multiple responses

Parents were asked to write three suggestions for involving more fathers in a home-based ATOD educational program. Many parents (31.4% n=16) did not write a response to this item and 5.9% (n=2) of the responses provided were general comments unrelated to the development of an educational intervention for parents.

Of the responses provided (n=33), the nature of the intervention was the most frequently mentioned response (61.4% n=20). Parents suggested making parts of the materials specifically directed to fathers, including activities that require the views of more than one parent, using catchy titles of the materials to capture the father’s interest. For example, “Dad we are talking to you ... this is not just mothers’ business.”

Eighteen per cent (n=6) of the parents who responded to this item indicated the importance of a unified approach, where both the mother and father are equally important, should be highlighted. Other suggestions included providing specific incentives that were appealing to fathers (11.3% n=4); getting the child to ask the father to participate (4.5% n=2); and getting a testimonial-type speech from a father who has a child with ATOD-use problems (2.3% n=1). Published information
relevant to father-specific recruitment strategies could not be located and therefore the relationship of these findings to the literature could not be determined.

**ATOD-related content and activities preferred by parents**

To identify preferences regarding the content of an intervention designed to enhance parent-child ATOD-related communication, parents were asked to rank nine topics (Table 12).

Consistent with previous formative studies, the parents in this study reported they would welcome practical suggestions about how to have successful ATOD-related conversations with their children\(^{98, 100, 102}\). While previous formative studies have reported parents’ most frequent request to be factual information about drugs\(^{102, 417, 418}\), this was not the case in this study, where communication skills were the most frequently requested content. Respondents in this study placed more importance on skills-oriented information, such as how to talk with children and what topics to talk about, than on obtaining factual information for themselves about specific drugs. Other formative research has also reported factual information about ATODs to be of lesser importance to parents than providing assistance with communication skills\(^{98}\).

To ascertain what types of activities they would prefer, parents were provided with nine options, and asked to select as many as they wished. The finding that parents preferred intervention materials that helped them to communicate and interact with their children has also been reported in other research\(^{45, 75, 101, 102, 418}\). The most popular selection was materials for parents to read with their child (86.3% n=42), followed by activities parents can do with their child (80.4% n=41), and then items for parents to read by themselves (74.5% n=40). Stories showing how other parents talked with their children about ATODs was the fourth most popular selection (68.6% n=35) and reading materials with some questions to answer was fifth (64.7% n=33). Activities such as quizzes and games were selected by 49% (n=25) of parents. Activities parents could do by themselves, was selected by 33.3% (n=17) of parents. Crosswords were selected by 31.4% (n=16) of parents as an activity they would like included. One parent selected the ‘Other’ option and requested a video for children to watch.
Table 12: Parents’ first preference of intervention content

<table>
<thead>
<tr>
<th>Content</th>
<th>% of parents 1st pref (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ways to increase parents’ confidence to be able to talk with their</td>
<td>25.4</td>
</tr>
<tr>
<td>children about drugs</td>
<td></td>
</tr>
<tr>
<td>Information about how parents can influence the decisions children</td>
<td>21.6</td>
</tr>
<tr>
<td>make about drug use</td>
<td></td>
</tr>
<tr>
<td>Ideas on how to talk with children about drugs</td>
<td>19.6</td>
</tr>
<tr>
<td>Facts about illegal drugs (other than cannabis)</td>
<td>13.7</td>
</tr>
<tr>
<td>Facts about marijuana</td>
<td>5.9</td>
</tr>
<tr>
<td>Facts about alcohol</td>
<td>5.9</td>
</tr>
<tr>
<td>Facts about medicines</td>
<td>3.9</td>
</tr>
<tr>
<td>Facts about tobacco</td>
<td>2.0</td>
</tr>
<tr>
<td>Other (signs of drug use)</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Acceptability of using a choice of materials as a way to recruit parents

As mentioned earlier in this chapter and discussed in greater depth in the Literature Review (Chapter 2), recruitment of parents has been a major implementation barrier in previous parent-directed interventions. To assess the usefulness of offering parents a choice of intervention materials to enhance recruitment, parents were asked how they would like the decisions to be made regarding the content of the intervention. The majority of parents consulted (72.5% n=37) indicated they preferred to be given a choice. That is, the people running the program provided parents with a list of topics from which parents could select what they wanted. This finding provided support for the concept that enabling and preserving people’s right to choose what they do is a condition that appears to contribute to the success of interventions.\(^{91,95}\)

4.6 Implications for Practice

The purpose of this Exploratory Study was to use feedback from a self-complete questionnaire and structured discussions with parents, who had a child in Year 6 at primary school, to shape the development and implementation of a parent-oriented ATOD-related educational intervention. Several key implications for practice emerged from the results of this Exploratory Study and they are summarised below with support from previous research noted.

- ATOD use by children and the potential harm associated with such use, is an issue parents worry about even though they may underestimate their own children’s vulnerability and ATOD-use experience\(^{24, 78, 87, 88, 102, 287, 410, 417, 420}\).
• Parents want to be and should be involved in the planning phases of a parent-oriented ATOD-related educational intervention\textsuperscript{55, 94, 99, 104, 411}.

• Logistical barriers for educational programs requiring parents to attend a venue should be addressed\textsuperscript{74, 77, 84, 85, 87, 88, 103, 271, 410, 411, 429}. For example, childcare and transportation should be provided.

• Stated intentions to attend or participate in a parent-oriented intervention might not always be reliable predictors of attendance. In this Exploratory Study, all parents were contacted by telephone the evening prior to the discussion group meetings to re-confirm their intention to attend. Only 49 out of 72 parents who indicated they would attend a discussion group, actually did and this low response was consistent with previous findings\textsuperscript{73, 78}.

• While the importance of linking parent educational interventions to their children’s school was mentioned by some parents in this study, most previous parent-directed ATOD-related educational materials have used the school as a conduit to parents. Schools are promoted in other research as an effective channel to reach parents and it is widely recommended that educational interventions for parents be embedded within the school context\textsuperscript{28, 31, 94, 271, 399}.

• Parent-oriented interventions should be presented in a format preferred and supported by parents\textsuperscript{28, 43, 83-85, 101, 409, 411}. A parent-directed intervention should be non-judgemental, simple, time-efficient, easy to use, fun, colourful and interactive.

• While parents are receptive to parent-oriented ATOD-related education, flexibility and convenience regarding intervention delivery is essential. There was abundant published evidence supporting the findings of this research, that parents preferred interventions to be home-based\textsuperscript{31, 37, 68, 69, 74, 75, 77, 83, 85, 100, 101, 271, 285, 286, 384, 385, 411, 413, 445, 476}. While this approach may not be popular with school personnel, it seems to be an important predictor of parent recruitment and ongoing participation, consequently warrants serious consideration by practitioners\textsuperscript{85, 103}.  

\pagebreak
A combination of strategies to promote and maintain parent involvement should be utilised\textsuperscript{85, 106-108, 164, 384, 411, 474} and incentives for initial and continuing parental involvement should be provided\textsuperscript{43, 69, 74, 85, 100, 101, 411}.

Creating a climate of enthusiasm for parent involvement among their children appears to be an important motivational factor related to both the initial recruitment and the continuing participation of parents. Children can be used to recruit and maintain parent involvement by writing personal invitations and/or preparing advertisements. Rewarding children of parents who participate is also recommended. Educational interventions for parents, initiated by children and able to be completed at home, were also supported in the literature as a means to engage parents\textsuperscript{37, 83, 85, 94, 477}.

The content of the intervention should be skills-based and focus on developing and reinforcing parenting skills that have been identified as being protective of hazardous ATOD use by children. In particular, practical communication skills (such as how to talk with children, how to raise the topic and what topics to talk about) should be addressed in the intervention\textsuperscript{98, 102, 418}.

In conclusion, several limitations (discussed previously in Chapter 3) constrained the generalisability of the findings of this formative research. The consistency between these and other research findings, however, justify their implementation in a larger randomised comparison trial.
CHAPTER 5 RANDOMISED COMPARISON TRIAL: METHODS

5.1 Introduction
This research comprised two separate but related studies. An Exploratory Study was conducted to consult parents regarding the nature of a subsequent parent-targeted intervention. The aim of the second study, a Randomised Comparison Trial, was to develop, implement and evaluate the efficacy of the intervention. The extent to which intervention impacted on parent-child ATOD-related communication was evaluated. This chapter describes the methods used in the Randomised Comparison Trial and is presented in the following sections:

5.2 Research objectives;
5.3 Study design;
5.4 Sample size;
5.5 Intervention development;
5.6 Recruitment;
5.7 Dissemination and implementation of intervention;
5.8 Data collection instruments;
5.9 Validity of data collection instruments;
5.10 Reliability of data collection instruments;
5.11 Independent variables;
5.12 Dependent variables;
5.13 Intervention dose variable;
5.14 Other process variables;
5.15 Data analyses; and
5.2 Research Objectives
The objectives of this research were to:

- Assess the extent to which the parent-directed intervention was disseminated to, and implemented by parents.
- Assess factors related to the dissemination and implementation of the intervention.
- Assess the impact of the intervention on the nature of parent-child tobacco-related communication (ie, ever talked, recency, duration, engagement and specific topics) as reported by parents.
- Assess the impact of the intervention on the nature of parent-child alcohol-related communication (ie, ever talked, recency, duration, engagement and specific topics) as reported by parents.
- Assess the impact of offering parents a choice of intervention content on communication outcomes.
- Assess the impact of the intervention on the level of agreement between the responses of parents and their Year 6 children to equivalent communication variables.

5.3 Study Design
This Randomised Comparison Trial was conducted in the Perth metropolitan area of Western Australia during 1998 and 1999. The trial involved a cohort of parents and their Year 6 children recruited from randomly selected schools. Following an extensive formative study, sample schools were selected and parents were assessed three times and their children were assessed twice over a one-year period. The teachers of the students were also asked once during the trial to provide process evaluation data.

Parents of Year 6 children were targeted because in Western Australia, children in Year 6 are usually 10-11 years of age. While the majority of 10-11 year old children have not experimented with tobacco smoking or experienced unsupervised use of alcohol, they are beginning to make these decisions. Such an approach is in
accordance with the recommendation that parents begin talking with their children about ATODs before children begin to experiment\textsuperscript{3,5,8,45,59,106,154,305,306}.

Consistent with the design of a Randomised Comparison Trial\textsuperscript{398}, schools were randomly selected and randomly assigned to one of three study conditions (Table 13) as follows:

- Intervention-group 1 where parents were provided with a choice of learn-at-home drug education materials;
- Intervention-group 2 where parents were provided with learn-at-home drug education materials but not given a choice; or
- Comparison Group where parents were not exposed to the intervention.

Table 13: Study design

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents</td>
<td>Parents</td>
<td>Parents</td>
<td>Parents</td>
<td>Teachers</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>Students</td>
<td>Students</td>
<td>Students</td>
<td>Students</td>
</tr>
<tr>
<td>1. Interv. Gp. 1</td>
<td>O\textsubscript{1}</td>
<td>X\textsubscript{1}</td>
<td>O\textsubscript{3}</td>
<td>O\textsubscript{5}</td>
<td>O\textsubscript{8}</td>
</tr>
<tr>
<td></td>
<td>O\textsubscript{2}</td>
<td></td>
<td>O\textsubscript{4}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Interv. Gp. 2</td>
<td>O\textsubscript{1}</td>
<td>X\textsubscript{2}</td>
<td>O\textsubscript{3}</td>
<td>O\textsubscript{5}</td>
<td>O\textsubscript{8}</td>
</tr>
<tr>
<td></td>
<td>O\textsubscript{2}</td>
<td></td>
<td>O\textsubscript{4}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Comp. Gp</td>
<td>O\textsubscript{1}</td>
<td></td>
<td>O\textsubscript{3}</td>
<td>O\textsubscript{5}</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O\textsubscript{2}</td>
<td></td>
<td>O\textsubscript{4}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(O_1 = \text{Parent baseline}\) \hspace{1cm} \(O_3 = \text{Parent post 1}\) \hspace{1cm} \(O_5 = \text{Parent post 2}\)
\(O_2 = \text{Student baseline}\) \hspace{1cm} \(O_4 = \text{Student post 1}\) \hspace{1cm} \(O_8 = \text{Teacher process evaluation}\)
\(X_1 = \text{Parent intervention (choice)}\) \hspace{1cm} \(X_2 = \text{Parent intervention (no choice)}\)

5.4 Sample Size

Based on a repeated measures analysis of variance and working at a 0.05 level of significance, a sample size of 180 parents in each of the three study conditions was sufficient to obtain power of 85\% to detect a small effect (0.15 effect size) to test for differences over time between the treatment groups. Since the unit of assignment was the school, the parent sample size calculation was inflated to account for the potential effect of the cluster sample design. Failure to have done so could have resulted in spuriously inflated intervention effects and unacceptable levels of Type I error\textsuperscript{487}.
Using the formula of Murray\textsuperscript{482} (Design effect = 1 + (k-1)r; where k is the average number of Year 6 parents per school, or cluster, and r is the anticipated intra-cluster correlation), assuming average cluster sizes of 60 parents per school, and an intra-class correlation of 0.01, the sample size obtained under simple random sampling needed to be increased by a factor of 0.6. This increased the sample size to 288 parents within each of the three groups. The intra-class correlations of student responses in school-based research typically ranges from 0.001 to 0.05\textsuperscript{482}. While the study sample was recruited from schools, this research involved parents rather than students, and thus high levels of homogeneity among parent responses were not anticipated.

Based on previous large-scale school-based research conducted in Western Australia involving the recruitment of parents\textsuperscript{483, 484}, it was projected from baseline to post-test that approximately 20% of the sample would be lost to follow-up. To cater for this potential attrition, the overall sample size was increased further by a factor of 0.2, making the sample requirement in each study condition 346 parents.

After adjusting the sample size for the study's design effects, the overall sample size required for this study was 1038 parents. That is, 346 parents per condition.

5.5 Intervention Development

The intervention consisted of five Information Sheets containing information and activities designed to assist parents to talk with their Year 6 child about issues related to smoking cigarettes and drinking alcohol. Consistent with previous in-home parent interventions\textsuperscript{106, 274}, the design of the intervention materials was based on Social Cognitive Theory\textsuperscript{203}, The Health Belief Model\textsuperscript{933} and The Communications for Persuasion Model\textsuperscript{438}. Also as recommended in the literature\textsuperscript{485} the intervention was disseminated in accordance with The Diffusion of Social Innovations Theory\textsuperscript{439, 440}. The intervention materials sought to actively engage parents, reflect the principles of adult learning\textsuperscript{486} and contain a blend of utility knowledge, values clarification and communication skills development activities. The materials were based on a philosophy of harm minimisation, which has been the underlying basis of Australia's drug strategy since 1985\textsuperscript{118}. 
While the intervention consisted of five Information Sheets, seven were developed. The content of each was designed to be different but equivalent in terms of the concepts covered. To this end, an audit of the content was conducted to check all concepts were covered in each Information Sheet. A matrix was used to record this audit of concepts. The concepts conveyed in the intervention were developed from three sources. These included findings from the Exploratory Study, information from previous parent-directed interventions and information regarding the parenting factors known to influence adolescents’ decisions about drug use. It was also consistent with the school drug education curriculum of Western Australia. The concepts included in the intervention developed for this research are shown in Table 14 and the specific topics parents should try to cover with their Year 6 child are shown in Table 15.

Table 14: Intervention concepts

<table>
<thead>
<tr>
<th>Intervention concepts</th>
<th>Published support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents should talk regularly with their children about drugs.</td>
<td>163, 223, 302, 409</td>
</tr>
<tr>
<td>Year 6 is not too early to talk to children about these issues.</td>
<td>6, 59, 76, 105, 107, 163, 185, 193, 223, 302, 306</td>
</tr>
<tr>
<td>Talking to children about alcohol and cigarettes will not make the children curious and more likely to use these drugs. Discussions are better than lectures and parents should check their children understand what they have talked about by asking for and listening to the children’s opinions. Parents are an important influence in children’s lives and can influence children’s decisions regarding smoking cigarettes and drinking alcohol and their peer selections. Role modelling is important – parents should try to set an example they are happy for their children to copy as they get older. Even though role modelling is important, parents who smoke cigarettes or drink alcohol themselves and who want to try to protect their children from ATOD-related harm, should talk with their children and set standards for their children regarding these drugs. Parenting style and family management techniques are important factors in protecting children from drug-related harm. Places where parents can obtain further information and assistance. Practical tips to use when talking with children about drugs.</td>
<td>105, 107, 163, 223, 237, 343, 489</td>
</tr>
<tr>
<td></td>
<td>105, 139, 302, 489</td>
</tr>
<tr>
<td></td>
<td>20, 105, 107, 139, 223, 302, 343, 489</td>
</tr>
<tr>
<td></td>
<td>19, 20, 105, 107, 139, 163, 302, 311, 343, 488, 489</td>
</tr>
<tr>
<td></td>
<td>19, 8, 287, 423</td>
</tr>
<tr>
<td></td>
<td>19, 98, 102, 107, 418</td>
</tr>
</tbody>
</table>
Table 15: Specific topics parents should try to talk about with their Year 6 children

<table>
<thead>
<tr>
<th>Specific topics parents should try to talk about with their Year 6 child</th>
<th>Published support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus discussions on alcohol and tobacco rather than other illegal drugs.</td>
<td>105, 107, 276, 302</td>
</tr>
<tr>
<td>Discuss the prevalence of smoking by children and correct the misconception that most young people smoke.</td>
<td>19, 69, 88, 94, 105, 222, 284, 490</td>
</tr>
<tr>
<td>Discuss the short-term risks more often than long-term risks.</td>
<td>105, 107, 302</td>
</tr>
<tr>
<td>Discuss and practise practical ways children can refuse offers of cigarettes and alcohol.</td>
<td>7, 105, 107, 302, 343</td>
</tr>
<tr>
<td>Discuss family rules, limits and expectations regarding alcohol and cigarettes.</td>
<td>74, 105, 107, 134, 302</td>
</tr>
<tr>
<td>Discuss the consequences if family rules and limits about cigarettes and alcohol are broken.</td>
<td>105, 107, 302, 343</td>
</tr>
</tbody>
</table>

Validity

Interventions are reported to be of little practical use if they are perceived to be unacceptable to the intended consumers\(^\text{604}\). While validity analysis is commonly associated with data collection instruments, in this research it was also applied to the parent-directed intervention materials. Several strategies were utilised to increase the likelihood that the content of the intervention covered the theoretical domains of this research (content validity) and that it also conveyed the intended messages to parents (face validity).

Consistent with the development of other parent-directed health promotion materials, a graphic artist was hired as a consultant to improve their appeal\(^\text{106}\). Particular attention was also paid to ensuring the materials were suitable for single parent households. Furthermore, as recommended in the literature and utilised in previous parent-directed intervention research, feedback on the nature and content of the intervention was sought from a panel of experts and also via a piloting process with parents\(^\text{77, 85, 100, 223}\).

As explained earlier, the parent-directed intervention consisted of seven Information Sheets. Eighteen experts (whose combined expertise covered the following areas: research methodology, epidemiology, health promotion theory and practise, parent education, drug-use issues, and school/education issues) reviewed each Information Sheet. Expert panel members were provided with a copy of the intervention materials...
(seven separate Information Sheets) and a listing of the theoretical concepts the intervention was designed to cover\textsuperscript{203}. They were asked to provide feedback by either writing their comments and suggestions directly onto the manuscripts, and/or by completing an attached feedback sheet. They were specifically asked to assess the accuracy of the information, the coverage of the concepts, the suitability of the activities and tasks for parents, areas for improvement or deletion, and the length of the materials.

Overall, the draft intervention materials were reviewed favourably by the expert panel. The main changes included simplifying some of the language and reducing the amount of information included. Maintaining a distinction in the content between drug use per se and drug-use problems was suggested as a means to increase the clarity and usefulness of the information. With these changes the panel members considered there was equivalence between the concepts and content of the Information Sheets.

The materials were modified accordingly and piloted with 41 parents who had a child in Year 6, but who were not part of the study sample or participated in the reliability assessment of the data collection instruments. These parents were recruited using a snowball technique. Parents who were known to the researcher were contacted and asked if they were interested in reading the intervention materials. In turn, these parents were asked if they knew another parent who may have been interested in doing the same. Parents were screened to ensure they had a child in Year 6 and that they did not have a child who was currently in Year 5 who would be attending one of the study sample schools in 1999.

The parents were mailed the whole intervention (Seven Information Sheets), but asked to provide feedback on only three of the Information Sheets nominated by the researcher. The entire intervention was sent to parents so they could appreciate the overall context of the intervention. If they wished, parents could provide feedback in addition to reviewing the three intervention components they were allocated. A reply-paid envelope was included to facilitate the return of materials to the researcher.
Four weeks later a reminder phone call was made to parents who had not yet returned their feedback.

The piloting process resulted in feedback being received from 32 of the 41 parents (78%) recruited to critique the intervention materials. The number of parents who provided feedback on each Information Sheet is displayed in Table 16.

Table 16: Number of parents who provided feedback on each Information Sheet

<table>
<thead>
<tr>
<th>Intervention: Information Sheet #</th>
<th># parents who provided feedback (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
</tr>
</tbody>
</table>

Of the 32 parents who provided feedback on the intervention, 85.5% (n=27) were between the ages of 35 and 44 years, 69% (n=22) were female and 90.5% were married (n=29). All of the parents currently had a child in Year 6 at school. Forty-seven per cent of the parents (n=15) had three children and 40.5% (n=13) had two children. Forty per cent of parents (n=13) had a TAFE or business school qualification and 28% (n=9) had a university qualification. In terms of main occupation, 28% (n=9) of parents were employed as managers or administrators, 15.5% (n=5) as advanced clerical or service workers, and 28% (n=9) undertook only home duties. Most were Australian citizens (87.5% n=28) who were born in Australia (75% n=24). No parents reported being of Aboriginal or Torres Strait Islander origin. Data relating to socio-economic status were not collected.

Overall, the parents expressed satisfaction with the content of the intervention and no major changes were required. They indicated the Information Sheets were enjoyable, useful and easy-to-read. Parents were also invited to summarise the main message contained in each Information Sheet. Parents’ responses to this item indicated that the concepts of the intervention were conveyed to parents. Parents indicated that each Information Sheet took between five and 15 minutes to read. While these responses were very positive, they might have been biased, as most of these parents knew the researcher.
Readability

Readability assessment is an important aspect in the development of written materials used for health promotion purposes as it determines the average reading grade level required to comprehend the content. Flesch Reading Ease scores and Flesch-Kincaid Grade Level scores were calculated for all written material disseminated to parents. Flesch Reading Ease scores can range from 0 to 100. The higher the score, expressed as a percentage, the greater the number of people, who can potentially readily understand the document. Standard writing averages a Flesch Reading Ease score of 60-70%. In contrast, Flesch-Kincaid Grade Level scores indicate the school grade level for which the material is suited. Standard writing equates with Grade 7-8.

As a result of the readability analyses, minor changes were made to the intervention materials and the final readability scores are presented in Table 17. With the exception of the Information and Consent letter, the readability scores of written materials disseminated to parents were lower or equivalent to that of Standard writing. To comply with ethical requirements, the Information and Consent Letter contained complex terms such as 'confidential' and 'consent' and therefore resulted in a higher readability score.

Table 17: Readability analysis of written materials disseminated to parents

<table>
<thead>
<tr>
<th>Written material disseminated to parents</th>
<th>Flesch Reading Ease Score</th>
<th>Flesch-Kincaid Reading Grade Level Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Consent letter</td>
<td>60.1</td>
<td>9.1</td>
</tr>
<tr>
<td>Choice of Intervention materials letter</td>
<td>68.9</td>
<td>7.3</td>
</tr>
<tr>
<td>Letter recruiting parents to telephone interview</td>
<td>70.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Cover letter included with each Information Sheet</td>
<td>80.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Information Sheet 1</td>
<td>72.9</td>
<td>5.8</td>
</tr>
<tr>
<td>Information Sheet 2</td>
<td>65.7</td>
<td>7.9</td>
</tr>
<tr>
<td>Information Sheet 3</td>
<td>69.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Information Sheet 4</td>
<td>71.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Information Sheet 5</td>
<td>65.3</td>
<td>7.5</td>
</tr>
<tr>
<td>Information Sheet 6</td>
<td>71.6</td>
<td>6.1</td>
</tr>
<tr>
<td>Information Sheet 7</td>
<td>61.8</td>
<td>8.5</td>
</tr>
</tbody>
</table>
Copies of the final intervention Information Sheets are included as Appendix 3 and their numbers and titles were as follows:

# 1: Children and drugs: The examples parents set makes a difference.
# 2: Children and drugs: Parents’ opinions make a difference.
# 3: Children and drugs: How parents get along with their children makes a difference.
# 4: Children and drugs: How parents talk with children makes a difference.
# 5: Children and drugs: What parents talk about makes a difference.
# 6: Children and drugs: Balancing the influence of friends.
# 7: Children and drugs: Common questions parents ask (with some answers).

**Intervention-group 1: Choice of Information Sheets**

Giving people choice is suggested to increase their commitment\(^{91-93, 95}\) and this could be as effective as an intervention itself\(^{94}\). To facilitate parental choice of intervention materials, the parents in Intervention-group 1 were given an opportunity to rank the titles of the seven Information Sheets in terms of which they most wanted to read. The top five selections for each parent were subsequently distributed to them as the intervention. The content of each Information Sheet was equivalent in terms of the concepts covered and readability scores.

**Intervention-group 2: No choice of Information Sheets**

In an attempt to control for the potential confounding effect related to the intervention content, the five most popular Information Sheets, as ranked by the parents in Intervention-group 1, became the standard intervention for parents in Intervention-group 2. Information Sheets Number Two to Number Six (see above for titles) were therefore used as the standard intervention for parents in Intervention-group 2.

**5.6 Recruitment**

The sample of parents was accessed through 20 Perth metropolitan government primary schools. Before any contact was made with schools or parents, the Director-General of the Education Department of Western Australia was informed about the research and asked for approval to proceed. The Director-General deemed the
research to be a worthwhile area of inquiry and advised direct contact be made with schools.

The study sample was selected in 1998. Parents who had a child in Year 5 in 1998 and would therefore have a child in Year 6 in 1999 were included. Only parents, whose children attended a Perth metropolitan government primary school, where the predicted 1999 Year 6 enrolment was more than 60 students, were eligible for selection. One parent per family was eligible to participate.

Selection and Recruitment of Schools
To maximise external validity, schools were selected from the Western Australian Schools Alphabetic List (Semester 1, 1998) via stratified random sampling\textsuperscript{308}. All schools meeting the above inclusion criteria were stratified on socioeconomic status (SES) (ie, high, medium or low) using the school post-code and 1991 census information (the latest available at the time)\textsuperscript{472}. Nine schools were randomly selected from each SES stratum.

The randomly selected schools were then randomly assigned to one of three study conditions. (Ie, Intervention-group 1, Intervention-group 2 or Comparison Group.) Consistent with recruitment protocols of previous studies\textsuperscript{106}, each school Principal was sent a letter in Term 4 of 1998 and formally invited to participate in the study during the following year (1999). Attached to this letter was a schedule listing the requirements of staff should they agree to participate in the study. Schools in Intervention-groups 1 and 2 received an identical Study Schedule, while Comparison-group schools received a modified version (Appendix 4 and Appendix 5 respectively). Each school Principal was contacted by telephone two weeks later to ascertain his/her response regarding participation in the research. When a school Principal declined to participate, a replacement school was randomly selected from the remaining schools in the SES stratification from which the original school was selected. Therefore, the replacement school was in the same SES stratum and also assigned to the same study condition as the school whose Principal declined to participate.
Of the 12 low SES primary schools that met the inclusion criteria, four of the first nine Principals contacted declined to participate. Three of these were replaced with the three remaining schools from the low SES stratum. The fourth school was not replaced because the number of students enrolled in the other schools was sufficient to provide access to enough parents to cover the sample size required. There were 16 medium SES primary schools that met the inclusion criteria. The Principals of four of the first nine schools contacted declined to participate and were therefore replaced with the next four schools from this stratification. There were 18 high SES primary schools that met the inclusion criteria. Two Principals of the first nine schools contacted declined to participate and were replaced with other schools from this stratification. The Principals of the 18 recruited schools received brief written confirmation of recruitment and notification the researcher would make contact again early in 1999 (Appendix 6).

Schools were recruited during the year before data collection began to ensure the Exploratory Study sample was selected from schools that had not been recruited to the Randomised Comparison Trial. Likewise, reliability and validity testing of the data collection instruments and protocols, and piloting of the intervention were conducted with parents whose children attended schools other than those recruited to the Randomised Comparison Trial.

Early in Term 1 of 1999, each Principal who had previously agreed to participate in the Randomised Comparison Trial was contacted to reconfirm his/her agreement. The researcher then visited each school and met with each Principal in person. Consistent with previous school-based research methodology, at this meeting the Principals:
- provided written consent for the Year 6 teachers and Year 6 students to participate in the research;
- provided class lists of Year 6 students and the names of the Year 6 class teachers;
- provided their preferred mode of communication (ie, phone, facsimile, e-mail)
- agreed upon a time when pre-testing could be undertaken with Year 6 students and parents;
• agreed that, where possible, the Year 6 teachers would deliver their usual ATOD education curriculum to students during Term 2 (when parents would be receiving the intervention);
• agreed to distribute an Information and Consent Letter, provided by the researcher, to parents of Year 6 students; and
• viewed the letters of endorsement from the Director-General of Education and the Coordinator of the Western Australian School Drug Education Project.

While nine schools were recruited to each of the three study conditions, the parents in only the first six schools initially were pre-tested because, in theory, this would have yielded enough parents to achieve the required sample size. The remaining three schools in each condition were held on stand-by until after the baseline response rate from parents was known. Sufficient Intervention-group 2 and Comparison-group parents responded so the Principals of the related stand-by-schools were notified their schools were not required to participate in the study. Insufficient parents responded at baseline in Intervention-group 1 schools, necessitating the subsequent inclusion of two of the Intervention-group 1 stand-by-schools.

Recruitment of Parents

The recruitment of parents is reported to be difficult and therefore was carefully planned. Consistent with previous methodology, parents were recruited via their children who were used to disseminate information to parents.

Two weeks prior to baseline data collection, the Year 6 teachers in the 20 participating primary schools were asked to distribute envelopes containing an Information and Consent letter (Appendix 7) to each Year 6 student. In this letter, parents were informed about the nature and purpose of the research, how their child’s school was chosen and who was conducting the research. Parents were informed about confidentiality and their right to withdraw at any time without prejudice. Consistent with the student data collection protocols and the recommendations of previous research, and with the approval of the Human Research Ethics Committee at Curtin University of Technology, parents were asked to provide
passive rather than active consent. Passive consent allowed parents to decline while at the same time facilitated a high level of participation, thus increasing external validity. If parents did not want to participate, they were asked to notify the researcher. A non-response was interpreted as approval. As a result of this process, eight parents withdrew consent.

The covering letter of the parent baseline survey contained a second opportunity for parents to withdraw consent. Upon receipt of the parent baseline survey, a further 13 parents withdrew from the research. The baseline surveys that had already been completed by the children of these parents were shredded. Eighteen additional parents withdrew their consent during the implementation of the intervention materials, bringing the total number of parents who withdrew consent to 39 (2.6%). As a matter of courtesy and because they have overall responsibility for managing their schools, Principals were notified of the students whose parents withdrew consent.

Strategies to Maximise Recruitment of Parents

As recommended in recent parent intervention research, several strategies were employed in an effort to enhance the recruitment of parents including:

- Parents were recruited via schools. Information obtained from the Exploratory Study suggested that parents would be more likely to participate in a parent education project if the materials came home from the school. If this happened parents would be more likely to view the project as important because it came from the school and was therefore connected to their child’s education.

- Information obtained from the Exploratory Study indicated that parents would be more likely to participate if materials were personally addressed. The names of Year 6 students were therefore used to address the envelopes containing the Information and Consent letter for parents. For example ‘To the parents of Jack Beatty’.

- While this research primarily focussed on assisting parents to talk with their children about alcohol and tobacco, the study was called ‘Children and Drugs’. Formative data collected in the Exploratory Study indicated many of the parents consulted were worried about drugs and thought using the term ‘drugs’ in the study title would likely catch parents’ attention. This strategy was in line with the Health
Belief Model\textsuperscript{34} wherein it is posited that a decision to undertake a health action will not be made until the individual is sufficiently concerned about the potential resultant harm.

- Parents' fear of their child being harmed by drug use was another theme that emerged from the Exploratory Study. So while the Information and Consent letter contained the required ethical information, it also made an appeal to parents' protective instincts. It recognised that raising children was a very important task and sympathised with parents regarding the challenges of parenting. Participation in the research was promoted as providing a means by which parents could become more informed about the issues and feel better prepared to protect their children from drug-related harm. (The same Information and Consent letter was sent to Comparison-group parents but they were not offered copies of the intervention materials after all data collections were completed.)

- Consistent with the Health Belief Model\textsuperscript{34}, the content of the letter was also designed to assist parents to appreciate and personalise the real possibility of their children using ATODs. The letter stated that the role of parenting was changing due to children being exposed to adult themes at an increasingly younger age, with drug use being no exception.

- Parents who participated in the Exploratory Study indicated they would be more likely to participate in parent-directed drug education if their privacy was protected and they did not feel as though they would be judged. All parents were therefore guaranteed confidentiality and assured there were no right or wrong answers. An identification coding system known only to the researcher was developed and used. The coding system was also required on follow-up questionnaires, so parents could be accurately tracked. Respondents were assured however, that names of schools, teachers, parents or students would not appear in any reports, with any identifying information and codes being kept under lock and key (hard copies) and password protected (electronic copies), accessible only to the researcher.

- To maximise the proportion of parents able to comprehend the contents of the Information and Consent letter, its readability level was assessed and adjusted accordingly.
• Teachers were provided with a coffee bag, as an incentive to distribute the envelopes containing the Information and Consent letters to all Year 6 students and to follow-up with any students who were absent on the day of distribution.
• School Principals or another staff member nominated by the Principal, received a facsimile two days prior to the specified distribution date of the Information and Consent letters asking Principals to remind teachers to distribute the letters to Year 6 students.

Facilitating Parental Choice of Intervention Materials
As described earlier, parents recruited to Intervention-group 1 were offered a choice of intervention materials. A letter was developed and assessed in terms of content and face validity by an expert panel (the results of which are presented later in this chapter). It was also subjected to readability analysis.

This 'choice letter' was disseminated to all parents recruited to Intervention-group 1 after they returned the baseline questionnaire. The letters were personally addressed to each parent who had completed a baseline survey. For example, 'To the Mother of Jack Beatty'. These parents were informed that during the next school term they would be provided with reading material containing information about ways to try to protect their children from being harmed by drugs. The letter also informed parents there were a total of seven Information Sheets and while they were welcome to read all seven, initially they would be sent their first five preferences. They were asked to turn the letter over, read the descriptions of the Information Sheets and then number the titles from one to seven, where one represented their first choice. Parents could also indicate by ticking a box if they wanted to receive all seven. They were asked to return the sheet to their Year 6 child's school by a specified date. Parents’ selections were entered into a database and used to determine which Information Sheets (intervention materials) they received and in what order.

Overall, the response from parents was low (55%). Many parents did not return the letter. One reason for this may have been that the choice letters were distributed two weeks before the end of the school term and many parents may have forgotten to
respond. Non-respondents were distributed a reminder letter and provided with a second opportunity to select the Information Sheets they would like to read. Parents who subsequently did not respond (n=145) were allocated the most popular five Information Sheets selected by the other parents and were retained in Intervention-group 1.

5.7 Dissemination and Implementation of the Intervention

The processes used to disseminate the parent-directed educational intervention were based on The Theory of the Diffusion of Social Innovations\textsuperscript{439, 440}. Therefore strategies identified in previous similar research as improving the diffusion of educational materials to parents were utilised\textsuperscript{401, 442}. The Information Sheets were distributed to parents via schools because previous parent-oriented interventions attracted only three to 35% of eligible parents if they were not directly linked to schools\textsuperscript{45}. Teachers distributed materials to Year 6 students who were asked to take the Information Sheets home for the parents.

In some studies, the parent-directed interventions have been mailed directly to parents\textsuperscript{401, 241, 399}. However, both the monetary costs associated with mailing each of the five parts of the intervention to over 700 parents and the need to disseminate the parent intervention materials under ‘real world’ conditions\textsuperscript{305}, precluded the use of direct mailing in this research. Moreover, the privacy policy of the Education Department meant the researcher could not have access to parents’ addresses.

Also, in the pursuit of integrity in terms of ‘real world’ conditions\textsuperscript{305}, the Year 6 teachers of students whose parents were in Intervention-groups 1 and 2, were asked to teach their usual drug education curriculum during the time of the intervention. They were also asked to substitute this project’s intervention materials for the home activities that accompany the usual curriculum. The Year 6 teachers of children whose parents were in the Comparison Group were not given any advice about sending home parent materials from the standard drug education curriculum.

Parents in the Intervention Groups were sent a total of five Information Sheets – one every three weeks. The parents in Intervention-group 1 (choice) were sent the
Information Sheets they selected in the order they ranked them (see the earlier section on facilitating parental choice of intervention materials). To minimise the affect of differential and selective attrition on completion rates, parents in Intervention-group 2 (no choice) were distributed the five most popular Information Sheets in a systematic random order.

The Information Sheets were packed into large envelopes with a personally addressed covering letter to each parent. Each envelope was addressed to the parent who completed the baseline questionnaire, eg: ‘To the Mother of Jack Beatty’.

The entire intervention (five Information Sheets) was not delivered to schools all at once. Instead, five deliveries were made three weeks apart. Each school was visited five times to deliver the next stage of the intervention. When at the schools, where possible, the researcher made brief personal contact with the Principal and each Year 6 teacher.

The envelopes (containing a cover letter to parents, a coloured Information Sheet and a white Feedback Sheet), were packed into class sets and delivered by the researcher to each school after prior notification of the school Principal. Each class set of envelopes was accompanied by a personally addressed covering memo to each of the teachers who were asked to distribute the envelopes to Year 6 students on a specified date. The students were asked to take the envelopes home and deliver them to whom they were addressed. Teachers were provided with a coffee bag incentive and a class list to record which students returned the Parent Feedback Sheets (a data collection instrument described later in this chapter.)

**Strategies to Maximise Dissemination of Intervention Materials to Parents**

Several factors appear to be important in the successful diffusion of health promotion innovations. Given decision-makers, administrators and practitioners within the organisation where the innovation is to be implemented, act as ‘gatekeepers’ with respect to the dissemination process and play critical roles in this process, attention was paid to the values and interests of the school Principals and teachers involved. For example, the researcher is a trained and experienced teacher
who is familiar with teachers’ working environment and workload, and understands how schools in Western Australia operate. The researcher learned the teachers’ names and kept all contact visits with teachers brief. Further, teachers and school Principals received regular brief communication, usually in the form of facsimiles, from the researcher. They were always notified, in advance, of any school visits by the researcher, and provided with copies of all materials distributed to parents. In addition, three newsletters (Appendix 8) were distributed to school staff in an effort to keep them aware of project procedures and progress.

As recommended in the diffusion literature, attention was also paid to reducing costs and promoting benefits for the Principals and teachers involved. Distributing the intervention materials to students was therefore promoted as an easy means for teachers to provide drug education for parents. There was no extra work for teachers or Principals such as photocopying, packaging or addressing the interventions for parents. Everything was provided in an effort to make it as easy as possible for the already busy teachers to disseminate the intervention to parents.

Organisational-level leadership, involvement and commitment are important factors in the diffusion of an innovation. The written endorsement of this research by the Director-General of the Education Department of Western Australia and other key stakeholders was therefore discussed with and shown to each school Principal in the initial face-to-face meeting. Further, while obtaining the Principals’ consent for this research was an important ethical prerequisite, it was also used as a strategy to maximise dissemination of the intervention. Teachers were informed their Principal had consented to and endorsed the research project being conducted with the parent community, thus indicating school-level organisational commitment. School Principals and teachers were also assured that all resources would be supplied at no cost to the school or parents.

**Strategies to Maximise Implementation of Intervention by Parents**

Consistent with the recommendations of previous research, numerous strategies were purposefully used to maximise the implementation of the intervention by parents.
First, while only five Information Sheets were disseminated to parents, seven were developed to enable the parents in Intervention-group 1 to be provided with a choice of materials to read. Second, the content of the Information Sheets was based on literature regarding improving parent-child communication about drugs and also addressed parents’ needs as identified in the Exploratory Study.

Third, in the cover letter that accompanied the first Information Sheet, parents were informed:

- The Information Sheets were interesting, easy-to-read and free.
- They would get information on ways parents can try to protect their children from the harm caused by drugs.
- A project of this nature was important for parents with children in Year 6 as this is when most children have not experimented with cigarettes or had unsupervised access to alcohol.
- The content of the Information Sheets was based on discussion groups with parents who had a child in Year 6.
- It was easier to prevent than cure drug-use problems and parents should learn about this issue before drug use became an issue for their family.

In line with the Health Belief Model\textsuperscript{94}, the fourth strategy used to maximise parent implementation rates involved personalising communication with parents. For example, each Information Sheet distributed to parents had a covering letter that was personally addressed and provided an encouraging statement such as ‘Thank you for continuing to support this project’.

Fifth, parents were provided with clear instructions about what to do with the intervention materials. That is, they were asked to read and keep the coloured Information Sheet and complete and return the white Parent Feedback Sheet. Finally, parents were regularly reminded about the incentives available for their Year 6 child if they returned materials to the school.
With regard to the intervention materials themselves, the text of each was subjected to readability analysis to maximise the proportion of parents able to comprehend the content. That is, the readability levels were kept as low as possible. Further, each of the Information Sheets was printed on brightly-coloured paper and each was a different colour. This strategy was designed to make them more appealing to parents and to also make them more noticeable at home.

The principles of Social Cognitive Theory\textsuperscript{203} were used to maximise the implementation of the intervention by parents\textsuperscript{171, 494, 497}. An incentive and reward system was designed to motivate parents to read the intervention materials. Inside each Information Sheet was a Parent Feedback Sheet and every time parents returned a Parent Feedback Sheet (regardless of whether it was completed) their child’s name went into the draw for a supermarket-shopping voucher.

Teachers were also reinforced for disseminating the intervention materials to parents via Year 6 students. All written communication to teachers was accompanied by a small incentive and when the third stage of the intervention was delivered to schools, a cake and letter thanking staff for their continued support was also delivered. Further, teachers were provided with a class list of names of students whose parents were participating and asked to record which students had returned the Parent Feedback Sheets and to encourage other students on the list to do the same.

5.8 Data Collection Instruments

This research required that data be collected from parents, Year 6 students and the Year 6 teachers. As shown in Table 18, seven data collection instruments were used.

Table 18: Data collection instruments

<table>
<thead>
<tr>
<th>Instrument #</th>
<th>Instrument name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Parent self-complete baseline survey</td>
</tr>
<tr>
<td>2</td>
<td>Student self-complete baseline survey</td>
</tr>
<tr>
<td>3</td>
<td>Parent self-complete first follow-up survey</td>
</tr>
<tr>
<td>4</td>
<td>Student self-complete follow-up survey</td>
</tr>
<tr>
<td>5</td>
<td>Parent self-complete second follow-up survey</td>
</tr>
<tr>
<td>6</td>
<td>Teacher self-complete process survey</td>
</tr>
<tr>
<td>7</td>
<td>Parent self-complete intervention feedback sheets</td>
</tr>
</tbody>
</table>
Instrument # 1: Parent Baseline Questionnaire

Parent baseline data were collected seven weeks before the commencement of the intervention using a self-report written questionnaire containing pre-coded questions with categorical response options.

Various instruments measuring different aspects of parent-child communication were located. Some of these instruments were unsuitable because they did not measure the specific alcohol and tobacco-related communication variables targeted in this research\textsuperscript{31, 43, 83, 105, 107, 163, 195, 217, 200, 343, 350, 410, 498, 499}. Others were telephone surveys and not feasible to administer given the limited resources of this research\textsuperscript{37, 106, 330, 500}. Two were designed for use with parents of 'at risk' children and therefore did not suit the universal nature of this research\textsuperscript{327, 501}. A baseline questionnaire was therefore developed and tested for use in this study. (The methods and results related to the validity and reliability of the data collection instruments are presented later in this chapter.)

The parent questionnaire measured the domains of Social Cognitive Theory\textsuperscript{203} with the following items:

- The importance parents placed on talking with their Year 6 child about drugs (7 items using a Likert scale response);
- Parents’ confidence and self efficacy regarding influencing and talking with their Year 6 child about alcohol and tobacco (11 items using a five point Likert scale response);
- Parents’ outcome expectancies regarding talking with their Year 6 child about alcohol and tobacco (6 items using a five point Likert scale response options);
- The frequency, recency, duration and nature of parents’ alcohol- and tobacco-related communication with their Year 6 child (8 items using Likert scales);
- The extent to which parents had specifically discussed nominated alcohol- and tobacco-related topics that have been shown to be protective of children’s involvement with these drugs (7 items consisting of yes, no and unsure response options);
- Parents’ knowledge of the parenting behaviours known to be protective of alcohol and tobacco use by pre- and early adolescent children (11 items using 5 point Likert scale);
- Parents’ perceptions of their Year 6 child’s current and near future use of alcohol and tobacco (4 items using Likert scale);
- Parents’ perceptions of the current and near future use of alcohol and tobacco by their Year 6 child’s same-age peers (3 items using Likert scales);
- Demographic characteristics including age, gender, relationship to Year 6 child, marital status, number of children in family, birth order of Year 6 child, highest level of formal education, main occupation, postcode, citizenship, country of birth and Aboriginality (13 items based on the most recent Australian population census questionnaire were utilised); and
- Parent’s previous participation in a drug education or parenting-skills training (4 items).

**Instrument #2: Student Baseline Questionnaire**

Children’s perceptions of ATOD-related communication with their parents (rather than parent reports), is reported as a significant factor in influencing the children’s decisions to use ATODs\(^1\). Therefore, as well as collecting data from parents, baseline data were also collected from students seven weeks before the commencement of the intervention using a self-report written questionnaire containing pre-coded categorical items.

The child pre-test questionnaire was designed to be administered simultaneously with the collection of data from parents and measure the following:

- If Year 6 children perceived their parents have talked with them about drinking alcohol and smoking cigarettes (two items).
- Children’s perception regarding which of their parents, if any, have talked with them about drinking alcohol and smoking cigarettes (two items).
- Children’s perceptions regarding which of their parents, if any, talked with them the most about drinking alcohol and smoking cigarettes (three items).
• Children’s perceptions of the recency of the last communication with the parents about drinking alcohol and smoking cigarettes (two items).

• Children’s perceptions of the content of cigarette and alcohol-related communication with the parents (seven items).

• Children’s perceptions of the duration of the most recent communication with the parents about drinking alcohol and smoking cigarettes (two items).

• The extent to which children perceived the communication with their parents about alcohol and tobacco to be one way or two way (four items).

• The self-reported current prevalence of alcohol and cigarette use by the Year 6 children of parents in the study (four items).

• Children’s perceptions of the current and future prevalence of cigarette and alcohol use by their same-age peers (three items).

• The self-reported intentions of the Year 6 children of parents in the study regarding their use of alcohol and cigarettes in the near future (i.e., 6 months) (two items).

• Demographic information about students including number of children in family in Year 6, birth order of Year 6 child, gender, year level at school, age, name of school and name of teacher (7 items).

Similar to previous research, the baseline questionnaire for students was designed to collect children’s responses to the same questions parents were asked (i.e., parallel items in each questionnaire). This strategy permitted comparison of responses between the parent sample and their own children and is in accordance with recommendations to use multiple data collection techniques to improve the accuracy of data.

As explained earlier, a suitable parent baseline questionnaire did not appear to exist, and therefore no equivalent student questionnaire existed either. A student instrument was developed to replicate questions asked in the parent baseline questionnaire. A system of unique identification coding was used to identify schools, class teacher, students and parents. It also enabled parent responses to be tracked from baseline to follow-up and matched with those of their Year 6 child.
Both baseline questionnaires were subjected to validity (face and content) and reliability analyses, the method and results of which appear later in this chapter.

With information gained from piloting, feedback from an expert panel, readability assessment and reliability analysis, some items were removed and a number of minor changes were made to the wording of the questions and responses. Prior to their administration, The Human Research Ethics Committee of Curtin University approved the baseline questionnaires. The final parent and student questionnaires (Instrument 1 and 2) administered at baseline, are included as Appendix 9 and Appendix 10 respectively.

**Standardised Student Data Collection Protocol**

The standardised procedure used to collect student data (Appendix 11) was consistent with that used in previous school-based health-related research studies. A draft of the student protocol was developed and tested with 28 Year 6 students from a conveniently selected government primary school.

One week prior to administration of the baseline questionnaire in schools, a facsimile was sent to each school Principal confirming the data collection date and time, and providing the name of the trained researcher who was to administer the survey. Principals were also reminded of the importance of ensuring that the Information and Consent letters were distributed to parents prior to the date of the student baseline survey.

To ensure standardisation of the data collection, all administrators attended a two-hour training session prior to baseline data collection, and attended refresher training (one hour) prior to follow-up data collection. The final protocol consisted of reading each survey item aloud slowly, while students followed using their own survey booklets. Students were informed:

- all responses were confidential and would not be seen by parents or school officials or teachers;
their responses were private and that students should not attempt to look at the responses of other students or discuss responses during testing time;

- they had the right to pass on any questions which made them feel uncomfortable or which they did not wish to answer; and

- it was important that honest answers be given.

The students' teachers were asked to stay in the classroom but at their desk during the testing. Teachers were asked not to look at the students' questionnaires or answer student questions regarding the questionnaires. The questionnaires were administered as part of a normal class session and took approximately 30 minutes to complete. All students were provided with an envelope in which to place their completed questionnaire. The survey administrator collected completed questionnaires.

After students completed the baseline questionnaire they were asked to write the name of the person 'Who talked with them the most about drinking alcohol and smoking cigarettes', in the space provided in the address label on the front of the envelope containing the baseline questionnaire for parents. (For example, the address label read 'To the ______ of Jack Beatty'.) Students were asked to deliver the parent questionnaire to the person they selected.

Strategies to Maximise Baseline Response Rates
Several strategies were employed in an effort to enhance the baseline response rate of parents, including:

- Students personally addressing the envelopes containing the parent baseline questionnaire.

- Providing rewards for the children of parents whom responded. At the completion of the student baseline questionnaire children were given two age-appropriate health promotion stickers and informed they could get two more stickers when they returned the parent questionnaires. This strategy was obtained from the formative research where parents indicated they would be more likely to respond if they thought their child would
receive a reward if they participated. This strategy is also recommended in the research literature\textsuperscript{43, 62, 94, 277}.

- Providing a covering letter on the front page of the parent baseline questionnaire, thanking parents for participating and informing them the school had approved the distribution of the survey. Parents were also informed the survey was confidential and voluntary and would take approximately 20 minutes to complete. Parents were reassured that school staff would not see their responses.

- Asking parents in the covering letter, to return the survey to the school in the envelope it came in, even if they did not want to complete the survey. Parents were informed that if they returned the survey, whether it was completed or not their child's name would go into a draw for a $50 shopping voucher.

- Informing children that even if their parent did not want to do the survey, they should bring it back to get their reward.

- Motivating students to return the parent questionnaire by creating a climate of enthusiasm among the whole class. Teachers were provided with incentives to reward students who returned the parent questionnaire.

- Providing parents with a scalable envelope in which to return the questionnaire to the school. Further, teachers were instructed to not open the returned parent surveys.

- Providing teachers with a 'Data Collection Kit' containing information about the project, what was required of teachers, a class list, reminder notes for use with students, stickers for students who returned the parent survey, a coffee bag, and contact details of the researcher (Appendix 12).

- Informing teachers both verbally by the survey administrator and also in the Teachers Kit, that the researcher needed as many surveys back as possible. Teachers were provided with class lists on which to record which students had returned a survey. Teachers were also provided with multiple copies of a reminder letter and asked to distribute these to students whose parents had not returned a survey after one week had elapsed since survey administration.

- Reminding Principals via facsimile one week after the parent surveys had been distributed to Year 6 students. Principals were asked to remind teachers to get as many surveys back as possible and to have the returned parent surveys ready for collection from the school by the researcher on a specified date.
**Instrument # 3: First Parent Follow-up Questionnaire**

The first parent follow-up questionnaire was designed to evaluate the impact of the intervention on parent-child communication outcome variables and was administered two weeks after the parent-directed intervention was completed.

Only two of the demographic questions used at baseline were included in the first parent follow-up questionnaire. That is, gender and relationship to the child in Year 6. These two items were included to determine if the parents who completed the follow-up were the same parents who had provided baseline data.

Baseline items addressing the importance of communication; self efficacy regarding communication; recency, duration and nature of communication; outcome expectancies regarding communication; and knowledge of protective parenting behaviours were repeated at the first parent follow-up. The questions addressing the parents' perception of their child's and his or her same-aged peers' current and near future use of cigarettes and alcohol were also repeated. Likewise, the questions addressing possible sources of contamination of the intervention were repeated. These questions were presented in the same way with forced-choice response categories identical to that used at baseline. The questions were presented in a slightly different sequence to economise on space and reduce the length of the follow-up questionnaire.

Two new items regarding communication were added to the first parent follow-up questionnaire. As well as indicating if they had talked with their Year 6 child about specified topics in the last two weeks (a question included at baseline), parents were also asked to indicate if they had discussed the topics in the last four months. The other new question included at the first follow-up asked parents to indicate the likelihood of discussing each of the specified topics with their Year 6 child in the next two months.

Intervention-group parents were given 20 additional process evaluation items at follow-up. These questions addressed the extent of parent-reported dissemination, implementation, reach, satisfaction and usefulness of the intervention materials.
As for the baseline questionnaire, the identification coding on the first parent follow-up questionnaire was such that the responses provided by parents could be matched to those of their Year 6 child.

**Instrument # 4: Student Follow-up Questionnaire**

A follow-up questionnaire, that closely resembled the baseline survey, was administered to students six months after the collection of baseline data and two weeks after the final part of the intervention was distributed to parents. Twenty of the 26 items used at baseline were repeated in the student follow-up questionnaire. One baseline item was deleted because its purpose was to identify if any children in Year 6 were from the same family and this item was not necessary at post-test because twins, triplets, etc had been previously identified. Five other baseline items were not repeated at follow-up because there was no need to re-collect demographic information from students. The wording of the response categories for two baseline items (questions 8 and 12) addressing the recency of alcohol- and tobacco-related communication with a parent were modified, to provide greater clarity.

The baseline item used to determine which adult, overall, talked to the child the most about cigarettes and alcohol, (question 6) was included twice at follow-up. In the baseline version of this question, the response category of ‘No one’ was inadvertently omitted. Therefore to assess the reliability of the baseline wording, this question was included twice in the student follow-up questionnaire – once in its original form with the response category of ‘No one’ not included and later in the questionnaire with this response category included.

Six new items were included in the student follow-up questionnaire. The first addressed the children’s perception of how likely it was that their parent would talk to them about specified alcohol-and tobacco-related topics in the next two months. The second new item asked students to indicate which of the same specified topics would they like to talk about with their parent. The remaining four new items consisted of process evaluation and addressed students’ perceptions of the extent of dissemination and implementation of the intervention materials. The follow-up
questionnaire administered to the Comparison-group Students did not contain these process evaluation questions.

Face and content validity analysis of the parent and student follow-up questionnaire items was undertaken (the methods and results of which are presented later in this chapter). The final parent and student follow-up questionnaires appear as Appendix 13 and Appendix 14 respectively.

Administration of Follow-up Data Collection Instruments
To make the follow-up data collection procedure as convenient for schools as possible, all students (except those of parents who had withdrawn consent) were administered a follow-up questionnaire. While all student follow-up data was entered, those provided by students whose parents did not return a competed baseline questionnaire, were filtered out of analyses requiring matched parent-child data. Furthermore, only parents who had returned a completed pre-test questionnaire were administered the first follow-up questionnaire.

An overall post-test data collection schedule was negotiated with school Principals. Approximately one week prior to the administration of the post-test questionnaire a facsimile was sent to each school Principal. The purpose of which was to confirm the date and time of data collection and name of the trained person who was to administer the survey. Where possible, the same person collected the baseline and first follow-up data at each school. The data were collected using the standardised procedures used to collect the baseline data.

When the administration of student follow-up questionnaires was completed, students whose parents had returned a completed pre-test were given a follow-up parent questionnaire to take home. These questionnaires were accompanied by a cover letter that was personally addressed to the parent who completed the baseline questionnaire six months earlier. Parents were asked to ensure the person whose name was written on the top of the letter was the person who completed the survey. As for the collection of baseline data, incentives were offered to the children of parents who returned a follow-up questionnaire whether it was completed or not.
Class teachers were asked to collect the follow-up parent surveys as the students returned them. Teachers were informed that the researcher needed as many surveys back as possible. Completed parent surveys were collected from each school approximately ten days after the surveys were administered to students. A reply-paid envelope was left at each school so any late parent surveys could be returned to the researcher.

**Instrument # 5: Second Parent Follow-up Questionnaire**

Delayed (or ‘sleeper effects’) have been found in regard to youth ATOD-use precursors as a result of preventive interventions\(^1\). While these findings appear to be limited to interventions involving counselling of ‘at-risk’ youth and their parents, a second follow-up questionnaire was administered to parents three months after the completion of the intervention in an attempt to assess any decay of intervention effects or potential sleeper effects. Only parents who had completed and returned the baseline and first follow-up questionnaire were administered the second follow-up.

The second follow-up questionnaire was very short and designed to assess if parents thought they had followed-up their behavioural intentions regarding communication with their Year 6 child (as reported at the first follow-up). The questionnaire was presented in a reply-paid post-card format. The front of the post card contained a short letter to parents thanking them for their continued support and asking them to complete four questions that appeared on the back of the post-card. Parents were asked to place the post-card in the mail by a specified date, even if they did not want to complete the questions.

The first item in the second follow-up questionnaire asked parents if they had discussed each of the seven specified alcohol- and tobacco-related topics with their Year 6 child in the last two months. The available responses were ‘Yes’, ‘No’ or ‘Unsure’. For matching purposes, two demographic items were also included. That is, gender and relationship to the Year 6 child. The final question asked parents if they would like to receive a summary of the research findings. The post cards were personally addressed to each parent, packaged into class sets and delivered to each
school by the researcher. Teachers were asked to distribute the post cards to Year 6 students on a specified date.

The face and content validity of the questions included in the second parent follow-up had been previously assessed by an expert panel and had been previously verified as appearing to measure what they were intended to measure. Likewise, the reliability of the communication-related questions had been previously assessed. A copy of the post card survey, administered to parents at the second follow-up, appears as Appendix 15.

**Strategies to Maximise First Follow-up Response Rates**

The strategies used to maximise parental response rates used at baseline were repeated at the first follow-up with additional strategies implemented as follows:

- Results of the raffle draws associated with returning the pre-test surveys were publicised to parents.
- Results of the raffle draws associated with returning Parent Feedback Sheets (described later in this Chapter) were publicised to parents.
- Parents who returned the first follow-up survey, whether it was completed or not, had their child’s name entered into a draw for one of four $50 shopping vouchers. This represented three more vouchers than offered as the baseline raffle prize.
- One week after the first follow-up parent surveys were collected from schools, each teacher was informed of the response rate of their school and those of other schools in the study. This was done in such a way as to protect the privacy of school names but also to acknowledge the efforts of teachers in getting the surveys back from parents.
- In schools where the parent response rate was below 80%, teachers were provided with a list of students whose parents had not returned the first follow-up survey. Teachers were asked to remind students to remind their parents.
- Duplicate surveys were given to parents who did not return the first follow-up questionnaire.
**Strategies to Maximise Parent Responses at the Second Follow-up**

Several strategies were implemented to maximise parent response at the second follow-up including:

- A shorter post-card style format.
- A reply-paid system was used for returning questionnaires to the researcher to eliminate reliance on students and teachers.
- An incentive for returning the post card was offered. That is, the chance to win one of four, $50 shopping vouchers.
- The post cards were personally addressed to each parent.
- School Principals were provided with an item to include in their school newsletter informing parents who won the previous incentives for returning the first follow-up questionnaire and reminding parents to complete and return the post card as soon as possible (Appendix 16).

**Instrument # 6: Teacher Process Questionnaire**

Health promotion evaluation literature recommends that as well as conducting formative research to determine the needs and preferences of the target group, process evaluation to assess the quality of intervention delivery is also important. Such information can be used to complement impact and outcome evaluations[96, 110, 351, 368, 398, 468, 496, 507-509].

While the evaluation of implementation of classroom-based health education appears to be somewhat developed[607, 510], evidence of the measurement of implementation of ATOD-related parent education, appears to be limited. Several parent-oriented ATOD educational interventions did not appear to report measurements of implementation completion[69, 70, 82, 89, 96]. Furthermore, much of the implementation data available related to ATOD-related parent training interventions, has been based on self-report, the reliability of which is limited by the usual constraints of this measurement technique[31, 52, 90, 100, 225, 425, 511]. In recognition of this limitation, some studies have attempted to reduce parent self-report bias by requiring students to return completed parent-child homework activities to the school. Researchers then
calculated the proportion of each parent activity returned and assess the extent of their completion\textsuperscript{68, 69, 100, 101, 508, 512}.

One of the strategies used to measure the extent of dissemination of the intervention in this study was to collect process data from teachers. Year 6 teachers in intervention schools were administered a written questionnaire to assess:

- The extent of the distribution of the intervention materials by teachers;
- Teacher satisfaction with the project;
- Teacher opinions regarding the sustainability and importance of the intervention; and
- The likelihood of contamination.

The following specific information was collected from teachers:

- The extent to which teachers reported distributing intervention materials to Year 6 students (one item).
- The extent to which teachers reported distributing Postcard surveys (one item).
- Teachers' perceptions of how many classroom drug education lessons students received during the period when the parent-directed intervention was being implemented (one item).
- Teachers' satisfaction with the research process and their perceptions regarding the sustainability of using the intervention materials to provide drug education for parents (2 items).
- Teachers' perceptions regarding the importance of providing drug education for parents (one item).
- Teachers' perception of whether any drug education information other than the intervention materials, were disseminated to parents (one item).
- Teacher self-ratings on cognitive characteristics that have been shown to be associated with adoption and implementation of school health innovations\textsuperscript{513} (one item, containing 14 previously validated components).
- Teacher demographic information (eight items).
- Teachers' perceptions regarding future participation in a similar parent-directed drug education project (one item).
The teacher process survey was subjected to validity analysis (the methods and results of which are presented later in this chapter). Reliability, however, was not assessed, as the objective was to collect data regarding the overall process of the research. Minor modifications were made to the teacher questionnaire as a result of the face and content validity assessments. The teacher questionnaire administered to intervention-school teachers appears as Appendix 17. Process data related to the dissemination of the intervention were not collected from teachers in Comparison-group schools.

Administration of the Teacher Questionnaire
Teachers were given advance notice, via a personally addressed facsimile, that a teacher survey would be arriving in the mail. The questionnaires were mailed to individual teachers in November of 1999. A covering letter was attached to the questionnaire thanking teachers for their participation and support, summarising the overall purpose of the research, highlighting the pivotal role of teachers, explaining the purpose of survey, guaranteeing confidentiality and estimating 10 minutes to complete the survey. Teachers were asked to sign a consent form that appeared at the bottom of the covering letter. Teachers were informed that once they had returned the survey, the consent form would be separated from the remainder of their responses.

Strategies to Maximise Response Rate From Teachers
Particular attention was given to maximising teacher response rates and strategies used for this purpose included:

- Providing individual teachers with advance notice of the impending arrival of the questionnaire.
- Mailing questionnaires to each individual teacher.
- Attaching a coffee bag to each teacher questionnaire as an incentive.
- Including a reply-paid pre-addressed envelope with each questionnaire to make it easy for teachers to return the questionnaire to the researcher.
• Offering an incentive for returning the questionnaire. When teachers returned their questionnaire (whether completed or not) their name was placed into a draw for one of four $50 shopping vouchers.

• Sending a reminder facsimile to teachers who had not returned a questionnaire by the due date.

• Sending duplicate surveys to teachers who did not respond to the reminder facsimile.

Instrument # 7: Parent Feedback Sheet

While studying program implementation may serve a variety of functions\textsuperscript{507, 509}, in this research it was used to avoid Type III error. As explained earlier, dissemination and implementation data were collected from parents at follow-up. In addition, a Parent Feedback Sheet (Appendix 18) was included inside each Information Sheet to ascertain how many of the Information Sheets were reaching parents. The Parent Feedback Sheets were also designed to collect information regarding the extent of implementation of the intervention materials by parents. That is, how much of each Information Sheet parents reported to have read. Each Parent Feedback Sheet was coded and numbered so the parent, school, teacher, Information Sheet and intervention week could be identified.

Each Parent Feedback Sheet contained five questions. Parents were asked how much of the Information Sheet they read, liked and found useful. The response categories for each question were as follows: ‘All of it’, ‘Some of it’, or ‘None of it’. Parents were also asked how many of the strategies described in the Information Sheet they had tried with their Year 6 child. The response categories for this question were ‘All of them’, ‘Some of them’, or ‘None of them’. The final question asked if parents wanted to be entered in the draw for a shopping voucher and they could respond ‘Yes’ or ‘No’.

Administration of Parent Feedback Sheets

The Parent Feedback Sheets were placed inside each Information Sheet before they were distributed to Year 6 students. The students were asked to deliver the envelope (containing the Information Sheet and Parent Feedback Sheet), to the parent to whom
it was addressed. Parents were asked to complete the five questions on the Parent Feedback Sheet and return it to the school by a specified date. Parents were advised to keep the coloured Information Sheet and to re-use the envelope the Information Sheet came in to return the white Parent Feedback Sheet to the school.

As they were returned to the school by the Year 6 children, teachers were asked to collect the Parent Feedback Sheets. The researcher visited each school every three weeks during the period of the intervention to collect the completed Parent Feedback Sheets.

**Strategies to Maximise Return of Parent Feedback Sheets**

Several strategies were implemented to maximise the return of the Parent Feedback Sheets and are listed below:

- Each of the five Information Sheets (with a Parent Feedback Sheet inside) was accompanied by a personally addressed covering letter.

- Within the text of each covering letter was a statement regarding the importance of feedback from parents and a request for parents to return the Parent Feedback Sheet by the date specified.

- The Parent Feedback Sheet was portrayed to parents as a means for them to provide feedback about the Information Sheets to the researcher, rather than as a means for the researcher to assess dissemination and implementation of the intervention by parents. For this reason, the Parent Feedback Sheet was titled ‘Tell us what you thought’.

- Incentives were offered for the return of the Parent Feedback Sheets. Every time parents returned a Parent Feedback Sheet their child’s name went into one draw for a shopping voucher. If parents returned all five Parent Feedback Sheets, their child’s name was put into the draw five times.

- Teachers were asked to encourage students to return the Parent Feedback Sheets by reminding students about the possibility of winning the $100 shopping voucher.
Summary of Data Collection Instruments

Presented in Table 19, is a summary of the instrument/s used to collect data required for each of the data analysis objectives.

Table 19: Data collection instruments relevant to data analysis objectives

<table>
<thead>
<tr>
<th>Research objectives</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>#6</th>
<th>#7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination and implementation of intervention</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Process variables related to intervention</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Intervention impact on parent-child communication re: tobacco</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention impact materials on parent-child communication re: alcohol</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact of offering parents a choice of intervention materials on communication outcomes</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Intervention impact on level of agreement between the responses of parents and Year 6 children to equivalent communication variables</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.9 Validity of Data Collection Instruments

In terms of data collection, validity implies that measurement and therefore the data obtained were relatively free from error\(^\text{332}\). Adequate validity enables a researcher to be more confident that any changes detected between baseline and follow-up are more likely to be real and less likely to be due to measurement error\(^\text{314}\).

Baseline Questionnaires (Instruments #1 & 2)

Both baseline questionnaires were based on the constructs of Social Cognitive Theory (SCT)\(^\text{203}\) and as explained earlier in this chapter, the student version of the baseline questionnaire contained items that mirrored those in the parent baseline instrument. To minimise the likelihood of systematic error, face and content validity of the parent and student baseline questionnaires were assessed. These types of validity can be assessed via a panel of experts and when panel members agree the data collection measures are valid, consensual validity is said to exist\(^\text{315}\). The baseline questionnaires
were therefore reviewed by an expert panel and also piloted with parents and students.

Expert panel members (n=18) were provided with the baseline data collection objectives and asked if the instruments appeared to measure these objectives (face validity). They were also assessed how well the content of the instruments reflected the theoretical constructs (content validity) of Social Cognitive Theory, The Health Belief Model and the Communications for Persuasions Model. Minor modifications were made to the questionnaires based on the recommendations of the panel.

Face validity of the baseline instruments was also investigated via a process of piloting. The student version was piloted in a government primary school with 28 Year 6 students, who were not part of the study sample. The school Principal provided permission to test the questionnaire with a Year 6 class. As compensation for the disruption to normal routine, the Principal was offered the funding equivalent of one day of teacher relief. The students’ parents were notified about the study in writing by the Principal and asked to contact the school if they did not want their child to be involved (passive consent). One parent chose this option. A copy of the student questionnaire and the Protocol for Administration of the Student Questionnaire were provided, to the school Principal and the Year 6 class teacher prior to piloting the questionnaire with students.

At the completion of the questionnaire administration students were invited to comment on the process and content of the instrument. They were also asked to comment on the usefulness of providing students with an envelope in which to place their completed questionnaires. The students responded positively to having confidentiality maintained and reported this made it easier to be honest. This seemed consistent with previous research involving the administration of a written questionnaire to school students, whereby satisfactory validity was found when confidentiality was assured. The class teacher was also asked to provide her perceptions of the questionnaire and the protocol used. Students were given a sticker to thank them for their time and help.
As a result of the piloting, minor amendments were made to improve the face validity of the questionnaire. For example, the terminology ‘standard’ drinks in the items addressing students’ alcohol use was changed to ‘whole’ drinks. Although pictures of standard drinks were already included on the questionnaire, students had difficulty with the ‘standard’ drinks term. Students preferred the term ‘whole’ drink because they understood it better. The pictures of standard drinks were therefore retained but called ‘whole’ drinks. Another amendment involved reducing the number of response categories on the lifetime alcohol use item from nine to six because most students at this age had only ever had sips of alcohol with their family. Finally, a preliminary analysis of the data collected was undertaken to investigate the range and frequency of student responses, with no changes made to the questionnaire as a result of this analysis.

To maximise face validity at baseline, the parent questionnaire was pilot tested with 15 parents. A flier was developed and distributed by the researcher to people known to have a child in Year 6. The snowball technique was utilised to recruit parents. Parents who agreed to participate were given the questionnaire and a return addressed pre-paid envelope. Parents were given an instant lottery ticket to compensate them for their time. They were asked to complete the questionnaire, to record how long it took and to identify any items they considered parents might find confusing or too personal. Parents were invited to write comments directly onto the questionnaire and/or to complete a one-page feedback sheet attached to the end of the questionnaire (Appendix 19). They were also invited to make written suggestions regarding how to improve the questionnaire.

All parents who piloted the questionnaire (n=15) were between the ages of 35 and 44 years, nine were female and most were married (n=13). Ten of the parents had two children in their family, three of the parents had three children and two parents had four children. In most instances (n=13), the Year 6 child was the first or second born child. Nine of the parents had a trade or university qualification, all were Australian citizens and none were of Aboriginal or Torres Strait Islander origin. As a result of piloting, very minor amendments were made to enhance face validity.
A preliminary analysis of the data collected in the pilot process was undertaken to investigate the range and frequency of parental responses. As a result, the number of response categories for items addressing the recency of communication were increased from seven to nine to improve the sensitivity of these items. The item addressing parental outcome expectancies related to communicating with their child about smoking cigarettes and drinking alcohol, appeared in the pilot version of the questionnaire as both a closed-ended and as an open-ended question. The open-ended question appeared early in the questionnaire and the closed-ended version appeared near the end. This strategy was used to check if the forced choice options were realistic. The responses corresponded with each other and thus no changes were made to the closed-ended outcome expectancy item in the questionnaire.

**Follow-up Questionnaires (Instruments # 3, 4 & 5)**

An expert panel was utilised to evaluate the face and content validity of the parent post-test instruments. Panel members were provided with a table linking each item in the parent questionnaire to the data collection objectives. A similar table was provided showing how each objective was addressed by items in the student version of the follow-up questionnaire. Panel members were asked to use the tables to provide feedback on the face and content validity of the instruments. They were also asked to pay particular attention to the items designed to identify the extent of dissemination and implementation of the intervention, as these questions were new inclusions. The panel consensus was that no amendments were necessary. The instruments were therefore not re-piloted with parents and students.

**Teacher Process Survey (Instrument # 6)**

A draft of the teacher questionnaire was reviewed by the expert panel members, who considered the questionnaire to have face validity and also provided an adequate measure of the questionnaire objectives (content validity). The teacher questionnaire was subsequently piloted with a convenience sample of 11 Year 6 teachers from three schools not part of the study sample. These teachers were provided with a summary of the research and informed that while the research targeted parents, teachers had played an important role in the research process and it was therefore important that information regarding teachers’ perception of the research process was collected.
Pilot teachers were asked whether the questions and their order made sense and if any questions were too personal or in any way offensive. Teachers were encouraged to complete the survey and to write any suggestions or comments directly onto the questionnaire. Pilot teachers were provided with a pre-addressed pre-paid envelope in which to return the survey to the researcher. All 11 teachers responded and this piloting process resulted in very minor alterations to the Teacher Process Survey.

**Parent Feedback Sheet (Instrument # 7)**

As explained earlier, a Parent Feedback Sheet accompanied each of the Information Sheets when they were disseminated to parents. A draft of the Parent Feedback Sheet was reviewed by the expert panel and piloted with a convenience sample of 12 parents. No changes were made to its format or content.

**Readability of Data Collection Instruments**

To enhance validity the readability level of each data collection instrument was assessed. While, the results presented in Table 20 indicate readability scores much lower than that of Standard writing\(^{398}\), these scores may be somewhat inflated as parts of some instruments were not presented as full sentences.\(^{398}\)

<table>
<thead>
<tr>
<th><strong>Data collection instruments</strong></th>
<th><strong>Flesch Reading Ease Score</strong></th>
<th><strong>Flesch-Kincaid Grade Level Score</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument # 1: Parent baseline questionnaire (administered to all parents)</td>
<td>82.2%</td>
<td>3.2</td>
</tr>
<tr>
<td>Instrument # 2: Student baseline questionnaire (administered to all students)</td>
<td>95.6%</td>
<td>1.5</td>
</tr>
<tr>
<td>Instrument # 3: Parent follow-up questionnaire (Intervention-group version)</td>
<td>78%</td>
<td>3.8</td>
</tr>
<tr>
<td>Instrument # 3: Parent follow-up questionnaire (Comparison-group version)</td>
<td>80.7%</td>
<td>3.4</td>
</tr>
<tr>
<td>Instrument # 4: Student follow-up questionnaire (Intervention-group version)</td>
<td>97.8%</td>
<td>3.2</td>
</tr>
<tr>
<td>Instrument # 4: Student follow-up questionnaire (Comparison-group version)</td>
<td>86.5%</td>
<td>2.8</td>
</tr>
<tr>
<td>Instrument # 5: Second Parent follow-up questionnaire</td>
<td>79.8%</td>
<td>3.7</td>
</tr>
<tr>
<td>Instrument # 6: Parent Feedback Sheet</td>
<td>98.8%</td>
<td>1.1</td>
</tr>
<tr>
<td>Instrument # 7: Teacher survey</td>
<td>98.2%</td>
<td>1.1</td>
</tr>
</tbody>
</table>
5.10 Reliability of Data Collection Instruments

Reliability refers to the likelihood of achieving consistency of measurement and in this research, test-retest reproducibility was used to assess instrument reliability.

Baseline Instruments

Administering each of the baseline questionnaires twice with subjects not previously selected in the study sample provided data from which reliability was assessed. The 1991 ABS census data were used to identify high and low SES schools in the Perth metropolitan area based on postcode. One high and one low SES school with a 1999 Year 6 enrolment of more than 60 students and not previously selected in the study sample, was randomly selected. Permission was obtained from school Principals and each school was provided with multiple copies of a letter informing parents of the research and seeking passive parental consent. Schools were compensated for their time with the equivalent of one half day of teacher relief per school. The teachers involved were also given an instant lottery ticket to thank them for their time. At the completion of the test-retest procedure, thank you letters were sent to school Principals.

The baseline questionnaires were administered twice to the same group of Year 6 students and one of their parents. The second administration of the questionnaires was conducted two weeks after the initial test. The two-week time period between tests aimed to reduce the likelihood of students choosing the same answers because of immediate recall, as well as to reduce the likelihood of maturation effects. The researcher, using a standardised administration protocol administered both tests. Students were administered the student instrument at school, then were asked to take a parent survey home to be completed by the parent they nominated as talking to them the most about smoking cigarettes and drinking alcohol. Only parents who returned Test 1 were sent Test 2. An instant lottery ticket was attached to Test 2 to encourage parents to complete the survey again.

As shown in Table 21, at Time 1, four of the 56 returned parent questionnaires were not completed. At time 2, nine of the 44 returned parent questionnaires were not completed and a further seven questionnaires were unusable. Reasons for the data
being unusable included: a different parent completed the survey at Time 2 (four cases); one parent with twins answered for the other child at Time 2; and two parents did the retest but had not completed the survey at Time 1. So, while 65 questionnaires were administered at Time 1, only 28 could be used for the reproducibility analyses. Table 21 shows the number of questionnaires administered and returned during the test-retest procedure.

Table 21: Test-retest response rate

<table>
<thead>
<tr>
<th>Time</th>
<th># administered questionnaires</th>
<th># returned questionnaires</th>
<th># useable questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1 (test)</td>
<td>65</td>
<td>56 (86.1%)</td>
<td>52 (80%)</td>
</tr>
<tr>
<td>Time 2 (retest)</td>
<td>56</td>
<td>44 (78.6%)</td>
<td>28 (50%)</td>
</tr>
</tbody>
</table>

Of the useable parent data (n=28), all respondents were between the ages of 32 and 47 years of age (mean=39.5 years). Sixty-eight per cent (n=19) were female, most (68% n=19) were the mother of the child, and were married (81.5% n=23). In terms of number of children, 43% (n=12) had three children in their family, 36% (n=10) two children and 11% (n=3) had four children. In 36% of cases (n=10) the Year 6 child was the first child in the family. In 32% (n=9) of cases the Year 6 child was the second born child in the family and in 25% (n=7) of cases the Year 6 child was the third child born. Half of the respondents (n=14) had completed Year 10 at school and 27% (n=7) had a trade or business qualification. Most respondents (86% n=24) reported being Australian citizens, with only one respondent being Aboriginal. Few (18%, n=8) had previously attended a drug education course. Most (96.5% n=27) reported not having participated in a parenting course.

Parent data collected by the test-retest were analysed by obtaining a Cohen’s Kappa statistic for each item. A Weighted Kappa statistic was obtained for items with ordered categorical responses. Kappa scores above 0.40 are reported to indicate acceptable reliability. Working on this assumption, items with a Kappa rating of poor or fair (<0.4) were considered to have unacceptable reliability.

As shown in Table 22, the reliability of most of the 24 items later reduced to become individual socio-cognitive variables (ie Knowledge, Importance, Confidence and
Outcome Expectancy), was mostly moderate or good. Items with an agreement rating of fair and where a lack of variation in parent responses (ie, most agreement limited to one response choice) did not account for the low agreement, were modified. With the exception of one item, those with poor agreement were deleted. One knowledge-related item with poor agreement was reworded from a negative to positive statement and retained.

Also, as shown in Table 22, several of the items relating to the dependent variables of this research (parent-child communication behaviours) have only Fair agreement. These results, however, were likely conservative due to testing effect. An assumption of reliability is the variable being measured remains constant. A potential problem of the test-retest procedure is the first measurement may affect the second. It is likely that completion of the questionnaire at Time 1 prompted some parents to communicate with their children about the issues raised in the questionnaire. If this were the case, parent responses to the same items at Time 2, would therefore be genuinely different. The low Kappa scores may therefore have been a result of the behaviour actually changing rather than the communication items being unreliable.

In addition, the low Kappa scores for a few of these items was likely due to limited variation in parent responses. The Kappa statistic becomes unstable for items where most of the agreement is limited to only one of the response choices. Questionnaire items with a reliability classification of poor or fair but very high percentage agreement (ie, >90%) in a limited number of categories were therefore retained.

Overall, 20 items were removed and 18 were modified, resulting in a parent baseline data-collection instrument with 74 items. Items removed from the parent questionnaire were also removed from the student questionnaire to maintain comparability of the baseline instruments. The items included in the parent baseline questionnaire were considered to have acceptable reliability in most instances. The test-retest stability of the parent baseline items retained in the questionnaire is presented in Table 22.

There were 60 completed student questionnaires available for reliability analysis.
When students had completed their questionnaire they were asked to take home the parent questionnaire. The reliability of items retained in the student baseline questionnaire is shown in Table 23. For reasons already discussed, it is possible items in the student questionnaire had greater reliability than that detected due to a testing effect and lack of variance in student responses.
Table 22: Test-retest stability: parent baseline questionnaire items (n=28)

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Baseline item #</th>
<th>Baseline Kappa statistic (standard error)</th>
<th>% agreement</th>
<th>Reliability rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent demographic variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>35^b</td>
<td>0.95 (0.05)</td>
<td>96.1</td>
<td>Very good</td>
</tr>
<tr>
<td>Gender</td>
<td>36</td>
<td>0.92 (0.08)</td>
<td>96.4</td>
<td>Very good</td>
</tr>
<tr>
<td>Relationship to Year 6 child</td>
<td>37</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Marital status</td>
<td>38</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Number of children in family</td>
<td>39</td>
<td>0.83 (0.09)</td>
<td>88.8</td>
<td>Very good</td>
</tr>
<tr>
<td>Birth order of Year 6 child</td>
<td>40</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>More than one child in Year 6</td>
<td>41</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Highest education level</td>
<td>42</td>
<td>0.82 (0.12)</td>
<td>88</td>
<td>Very good</td>
</tr>
<tr>
<td>Main occupation</td>
<td>43</td>
<td>0.62 (0.15)</td>
<td>81.4</td>
<td>Good</td>
</tr>
<tr>
<td>Post code</td>
<td>44</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Citizenship</td>
<td>45</td>
<td>0.63 (0.23)</td>
<td>92.6</td>
<td>Good</td>
</tr>
<tr>
<td>Country of birth</td>
<td>46a</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Aboriginal or Torres Strait Islander</td>
<td>46b</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Participated in a drug education course for parents</td>
<td>47a</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>If yes, how long ago.</td>
<td>47b</td>
<td>n=5^c NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Participated in a parenting skills course</td>
<td>48a</td>
<td>0.65 (0.32)</td>
<td>96.3</td>
<td>Good</td>
</tr>
<tr>
<td>If yes, how long ago.</td>
<td>48b</td>
<td>n=1^c NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td><strong>Independent socio-cognitive variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importance</td>
<td>1ab</td>
<td>0.60 (0.16)</td>
<td>92.9^a</td>
<td>Good</td>
</tr>
<tr>
<td>Importance of talking with child about the risks of smoking.</td>
<td>1b</td>
<td>0.46 (0.12)</td>
<td>63</td>
<td>Moderate</td>
</tr>
<tr>
<td>Importance of talking with child about how many children smoke.</td>
<td>1c</td>
<td>0.50 (0.12)</td>
<td>89.3^a</td>
<td>Fair</td>
</tr>
<tr>
<td>Importance of talking with child about what parent wants the child to do about smoking.</td>
<td>1d</td>
<td>0.60 (0.14)</td>
<td>85.7^a</td>
<td>Moderate</td>
</tr>
<tr>
<td>Importance of talking with child about ways child could refuse offers to smoke.</td>
<td>1e^b</td>
<td>0.57 (0.14)</td>
<td>85.7^a</td>
<td>Moderate</td>
</tr>
<tr>
<td>Importance of talking with child about risks of drinking too much alcohol.</td>
<td>1f</td>
<td>0.55 (0.15)</td>
<td>85.7^a</td>
<td>Moderate</td>
</tr>
<tr>
<td>Importance of talking with child about ways child could refuse offers to drink alcohol.</td>
<td>1g</td>
<td>0.46 (0.15)</td>
<td>78.6</td>
<td>Moderate</td>
</tr>
<tr>
<td>Influence</td>
<td>2</td>
<td>0.26 (0.18)</td>
<td>85.7^a</td>
<td>Fair</td>
</tr>
<tr>
<td>How much parent can influence child's decision regarding smoking.</td>
<td>3</td>
<td>0.63 (0.19)</td>
<td>92.8</td>
<td>Good</td>
</tr>
<tr>
<td>How much parent can influence child's decision regarding drinking alcohol.</td>
<td>4</td>
<td>0.47 (0.13)</td>
<td>70.4</td>
<td>Moderate</td>
</tr>
<tr>
<td>How much parent can influence child to believe that most young people do not smoke.</td>
<td>5</td>
<td>0.62 (0.16)</td>
<td>89.9</td>
<td>Good</td>
</tr>
<tr>
<td>Confidence</td>
<td>6ab</td>
<td>0.26 (0.12)</td>
<td>78.6</td>
<td>Fair</td>
</tr>
<tr>
<td>Confidence of parent in ability to talk about risks of smoking cigarettes.</td>
<td>6b</td>
<td>0.41 (0.10)</td>
<td>49.2</td>
<td>Moderate</td>
</tr>
<tr>
<td>Confidence of parent in ability to talk about how many children smoke.</td>
<td>6c</td>
<td>0.66 (0.14)</td>
<td>85.2</td>
<td>Good</td>
</tr>
<tr>
<td>Confidence of parent in ability to talk about what the parent wants the child to do about smoking.</td>
<td>6d</td>
<td>0.57 (0.14)</td>
<td>77.8</td>
<td>Moderate</td>
</tr>
<tr>
<td>Confidence of parent in ability to talk about ways child could refuse offers to smoke.</td>
<td>6e^b</td>
<td>0.65 (0.14)</td>
<td>85.7</td>
<td>Good</td>
</tr>
<tr>
<td>Confidence of parent in ability to talk about risks of drinking too much alcohol.</td>
<td>6f</td>
<td>0.72 (0.15)</td>
<td>85.2</td>
<td>Good</td>
</tr>
</tbody>
</table>

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### Randomised Comparison Trial: Methods

<table>
<thead>
<tr>
<th>Confidence of parent in ability to talk about ways child could refuse offers to drink alcohol.</th>
<th>6g</th>
<th>0.78 (0.15)</th>
<th>88.9</th>
<th>Good</th>
</tr>
</thead>
</table>

#### Outcome Expectancy

| Outcome expectancy: pleased | 7a | 0.44 (0.16) | 75 | Moderate |
| Outcome expectancy: responsible parent | 7b | 0.53 (0.17) | 78.5 | Moderate |
| Outcome expectancy: embarrassed child will think parent’s views out-of-date. | 7c | 0.42 (0.13) | 64.3 | Moderate |
| Outcome expectancy: sad child will not listen. | 7d | 0.44 (0.14) | 64.4 | Moderate |
| Outcome expectancy: uncomfortable because difficult to talk about | 7e | 0.46 (0.15) | 67.9 | Moderate |
| Outcome expectancy: worried might say the wrong thing. | 7f | 0.45 (0.14) | 67.9 | Moderate |

#### Knowledge

| There is a lot parents can do to reduce the chances their children will smoke cigarettes. | 17a | 0.12 (0.17) | 67.8 | Poor |
| If parents smoke cigarettes their children are likely to do the same. | 18 | 0.64 (0.14) | 81.4 | Good |
| Children know their parents’ opinions about smoking cigarettes — they don’t need to be told. | 19 | 0.23 (0.17) | 79.0 | Fair |
| Parents who smoke cigarettes should give advice to their children about smoking. | 20 | 0.37 (0.22) | 82.2 | Fair |
| Parents don’t need to teach their children how to refuse offers to drink alcohol because the children are too young. | 21a | 0.46 (0.32) | 92.9 | Moderate |
| Having clear family rules about cigarettes reduces the chance that children will take up smoking. | 22 | 0.35 (0.15) | 64.3 | Fair |
| Talking with Year 6 children about smoking cigarettes is more important than talking with them about illegal drugs such as heroin. | 23b | 0.43 (0.16) | 75 | Moderate |
| Parents who drink alcohol should not give advice to their children about drinking alcohol. | 24 | 0.62 (0.20) | 89.3 | Good |
| Talking with children about alcohol makes them curious about drinking. | 25 | 0.30 (0.19) | 81.5 | Fair |
| Talking with Year 6 children about the risks of illegal drugs (such as heroin and amphetamines) is more important than talking with them about the risks of alcohol. | 26b | 0.59 (0.14) | 78.6 | Moderate |
| Year 6 is too early for parents to teach their children ways to refuse offers to drink alcohol. | 27b | 0.37 (0.22) | 82.2 | Fair |

#### Perception re: child’s drug use

| Has child ever smoked a cigarette? | 28 | 0.46 (0.19) | 92.9 | Moderate |
| How many Year 6 students in child’s class have ever tried a cigarette (even just a few puffs)? | 29 | 0.61 (0.16) | 71.5 | Good |
| Before the end of this year, will the child smoke a cigarette? | 30 | 0.65 (0.18) | 96.5 | Good |
| Before the end of this year, how many Year 6 students in child’s class will smoke cigarettes (even just a few puffs)? | 31 | 0.75 (0.18) | 82.1 | Good |
| How much alcohol has child had in his or her whole life? | 32 | 0.75 (0.16) | 88.4 | Good |
| Before the end of this year will child drink more than sips of alcohol with family? | 33 | 1.00 (0.00) | 100 | Very good |
| Before the end of this year, how many Year 6 students in child’s class will drink more than sips of alcohol with family? | 34 | 0.53 (0.16) | 64.3 | Moderate |

#### Dependent parent-child communication variables

| Recency tobacco | 8 | 0.25 (0.11) | 17.9 | Fair |
| Duration tobacco | 9 | 0.73 (0.11) | 78.5 | Good |
| Extent of engagement: Tobacco | 10b | 0.52 (0.12) | 78.6 | Moderate |
| Talked: Specified tobacco topics | 11 | 0.49 (0.18) | 73.1 | Moderate |
| Last time parent talked about smoking (or not smoking) cigarettes, asked for child’s opinion? | 10b | 0.40 (0.16) | 56 | Fair |
| When parent talks with child about smoking (or not smoking) cigarettes, what usually happens? | 11 | 0.39 (0.14) | 64 | Fair |
| In last 2 weeks has parent talked with the child about the risks of smoking? | 16a | 0.31 (0.14) | 60 | Fair |
| In last 2 weeks has parent talked with the child about how much children smoke? | 16b | 0.14 (0.14) | 64 | Fair |
| In last 2 weeks has parent talked with the child about how the parent wants the child to do about smoking? | 16c | 0.36 (0.14) | 64 | Fair |
| In last 2 weeks has parent talked with the child about ways child could refuse offers to smoke? | 16d | 0.36 (0.12) | 50 | Fair |
| Recency alcohol | 12 | 0.30 (0.08) | 40.7 | Fair |
| Duration alcohol | 13 | 0.36 (0.12) | 50 | Fair |
### Extent of Engagement: Alcohol

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Agreement</th>
<th>Rate</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last time parent talked about drinking (or not drinking) cigarettes, asked for child’s opinion?</td>
<td>14</td>
<td>0.84 (0.15)</td>
<td>89.3*</td>
<td>Very good</td>
</tr>
<tr>
<td>When parent talks with child about drinking (or not drinking) alcohol, what usually happens?</td>
<td>15</td>
<td>0.34 (0.16)</td>
<td>64.3</td>
<td>Fair</td>
</tr>
</tbody>
</table>

#### Talked: Specified alcohol topics

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Agreement</th>
<th>Rate</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In last 2 weeks has parent talked with the child about risks of drinking too much alcohol?</td>
<td>16a</td>
<td>0.40 (0.14)</td>
<td>66.7</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about what the parent wants the child to do if offered alcohol?</td>
<td>16f</td>
<td>0.24 (0.17)</td>
<td>60</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about ways child could refuse offers to drink alcohol?</td>
<td>16g</td>
<td>0.33 (0.18)</td>
<td>66.7</td>
<td>Fair</td>
</tr>
</tbody>
</table>

* = Lack of variation in responses: most agreement limited to one rating choice  
* = Slight modification of wording  
* = Insufficient sample (n) to calculate Kappa
### Table 23: Test-retest stability: Student baseline questionnaire (n=60)

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Baseline</th>
<th>Kappa statistic (standard error)</th>
<th>% agreement</th>
<th>Reliability rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there more than one child from home in Year 6 in 1999?</td>
<td>1</td>
<td>0.73 (0.18)</td>
<td>96.7</td>
<td>Good</td>
</tr>
<tr>
<td>Gender</td>
<td>23</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Year at school</td>
<td>24</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Age</td>
<td>25</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Information required for tracking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2a</td>
<td>0.35 (0.14)</td>
<td>76.7</td>
<td>Fair</td>
</tr>
<tr>
<td>Father talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2b</td>
<td>0.62 (0.11)</td>
<td>83.3</td>
<td>Good</td>
</tr>
<tr>
<td>Stepfather talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2c</td>
<td>-0.02 (0.02)</td>
<td>95*</td>
<td>Poor</td>
</tr>
<tr>
<td>Stepfather talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2d</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very Good</td>
</tr>
<tr>
<td>Neither parent talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2e</td>
<td>0.50 (0.00)</td>
<td>88.3</td>
<td>Moderate</td>
</tr>
<tr>
<td>Guardian talks with the child about smoking (or not smoking) cigarettes.</td>
<td>2f</td>
<td>0.49 (0.31)</td>
<td>96.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>Which parent talks with the child the most about smoking (or not smoking cigarettes)?</td>
<td>3</td>
<td>0.66 (0.08)</td>
<td>81</td>
<td>Good</td>
</tr>
<tr>
<td>Mother talks with the child about drinking (or not drinking alcohol)?</td>
<td>4a</td>
<td>0.32 (0.12)</td>
<td>73.4</td>
<td>Fair</td>
</tr>
<tr>
<td>Father talks with the child about drinking (or not drinking alcohol)?</td>
<td>4b</td>
<td>0.56 (0.12)</td>
<td>81.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>Stepfather talks with the child about drinking (or not drinking alcohol)?</td>
<td>4c</td>
<td>-0.03 (0.02)</td>
<td>93.3*</td>
<td>Poor</td>
</tr>
<tr>
<td>Stepfather talks with the child about drinking (or not drinking alcohol)?</td>
<td>4d</td>
<td>0.80 (0.20)</td>
<td>93.3</td>
<td>Good</td>
</tr>
<tr>
<td>Guardian talks with the child about drinking (or not drinking alcohol)?</td>
<td>4e</td>
<td>0.21 (0.20)</td>
<td>90</td>
<td>Fair</td>
</tr>
<tr>
<td>Which parent talks with the child the most about drinking (or not drinking alcohol)?</td>
<td>4f</td>
<td>-0.02 (0.10)</td>
<td>93.3*</td>
<td>Poor</td>
</tr>
<tr>
<td>Who talks with the child the most about cigarettes and alcohol?</td>
<td>5</td>
<td>0.48 (0.11)</td>
<td>71.2</td>
<td>Moderate</td>
</tr>
<tr>
<td>Dependent parent-child communication variables (parallel to parent baseline dependent communication variables)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recency tobacco</td>
<td>8</td>
<td>0.39 (0.08)</td>
<td>35.1</td>
<td>Fair</td>
</tr>
<tr>
<td>Duration tobacco</td>
<td>9</td>
<td>0.43 (0.06)</td>
<td>53.3</td>
<td>Moderate</td>
</tr>
<tr>
<td>Extent of Engagement: Tobacco</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last time parent talked about cigarettes- asked your opinion</td>
<td>10</td>
<td>N/A new item</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>When parent talks with child about smoking (or not smoking) cigarettes, what usually happens?</td>
<td>11</td>
<td>0.40 (0.01)</td>
<td>66.7</td>
<td>Fair</td>
</tr>
<tr>
<td><strong>Talked specified tobacco topics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about long term risks of smoking?</td>
<td>7a</td>
<td>0.41 (0.10)</td>
<td>63.3</td>
<td>Moderate</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about how many children smoke?</td>
<td>7c</td>
<td>0.10 (0.11)</td>
<td>51.7</td>
<td>Poor</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about what he/she wants the child to do about smoking.</td>
<td>7f</td>
<td>0.30 (0.11)</td>
<td>62</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about ways child could refuse offers to smoke?</td>
<td>7g</td>
<td>0.23 (0.11)</td>
<td>61.1</td>
<td>Fair</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Recency alcohol</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>When was last time parent talked with child about drinking (or not drinking) alcohol?</td>
<td>12</td>
<td>0.26 (0.08)</td>
<td>26.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Duration alcohol</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How long did the last talk about alcohol last?</td>
<td>13</td>
<td>0.48 (0.08)</td>
<td>56.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Extent of engagement: Alcohol</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Last time parent talked about alcohol – asked your opinion.</td>
<td>14</td>
<td>N/A new item</td>
<td>N/A</td>
</tr>
<tr>
<td>When parent talks with child about drinking (or not drinking) alcohol, what usually happens?</td>
<td>15</td>
<td>0.32 (0.09)</td>
<td>58.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Talked specified alcohol topics</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In last 2 weeks has parent talked with the child about long term risks of drinking alcohol?</td>
<td>7l</td>
<td>0.34 (0.11)</td>
<td>70</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about what he/she wants the child to do if offered alcohol?</td>
<td>7m</td>
<td>0.41 (0.11)</td>
<td>70</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about ways child could refuse offers to drink alcohol?</td>
<td>7n</td>
<td>0.23 (0.11)</td>
<td>66.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Prevalence and perceptions re: drug use</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Has child ever smoked a cigarette?</td>
<td>16</td>
<td>0.84 (0.10)</td>
<td>89.9</td>
</tr>
<tr>
<td>Before the end of this year, will the child smoke a cigarette?</td>
<td>17</td>
<td>0.36 (0.12)</td>
<td>74.6</td>
</tr>
<tr>
<td>How many Year 6 students in child’s class have ever tried a cigarette (even just a few puffs)?</td>
<td>18</td>
<td>0.31 (0.10)</td>
<td>55</td>
</tr>
<tr>
<td>Before the end of this year, how many Year 6 students in child’s class will smoke cigarettes (even just a few puffs)?</td>
<td>19</td>
<td>0.22 (0.09)</td>
<td>49.9</td>
</tr>
<tr>
<td>How much alcohol has child had in his or her whole life?</td>
<td>20</td>
<td>0.68 (0.08)</td>
<td>68.3</td>
</tr>
<tr>
<td>Before the end of this year will child drink more than sips of alcohol with family?</td>
<td>21</td>
<td>0.30 (0.09)</td>
<td>52.6</td>
</tr>
<tr>
<td>Before the end of this year, how many Year 6 students in child’s class will drink more than sips of alcohol with family?</td>
<td>22</td>
<td>0.46 (0.09)</td>
<td>50</td>
</tr>
</tbody>
</table>

* Lack of variation in responses: most agreement limited to one rating choice
Follow-up Instruments

Items included in the parent and student versions of the baseline questionnaires were reused at the first follow-up and reliability assessment of these instruments was, therefore, not conducted. Further, the items added at follow-up collected process data and test-retest reproducibility was not possible.

The reliability of dependent variable data (parent-child communication-related items) collected from parents at the first follow-up was assessed. The proportional agreement between parents’ responses in the first follow-up questionnaire and their responses to the same items during a post-first-follow-up telephone interview was calculated. While a comparison of the parents’ self-reported data, with that collected via direct observation would have been preferable, it was not feasible due to the expense, expediency and ethics associated with collecting observational data. Furthermore, high correlations have previously found between interview and self-administered questionnaire methods of data collection and the differences in reliability have not been related to the method of administration.

Parents were recruited at the beginning of the research, prior to receiving any intervention materials. Five of the sample schools formed a convenience sample and parents who returned a completed baseline questionnaire were asked, via a letter, to provide consent to participate in one brief telephone interview sometime later in the project (Appendix 20). A telephone interview was used as it was considered more expedient and less expensive than administering self-complete written questionnaires.

Schools were eligible to be included if the majority of parents (>90%) had responded to the initial recruitment letter. Based on this selection criterion, two schools were included which provided 94 potential interviews with parents.

An administration protocol whereby the parent-child communication-related items contained in the parent version of the first follow-up questionnaire could be administered to parents via a telephone interview was developed, piloted and amended accordingly. This protocol appears as Appendix 21. The telephone interviews were conducted two weeks after parents had completed and returned the first follow-up questionnaire.
Sixty-three telephone interviews were completed. Thirty-one interviews were not completed due to the following reasons:

- two parents left the school;
- three parents returned incomplete follow-up questionnaires;
- 22 parents did not return the first follow-up questionnaire in time to be included in the telephone survey (i.e., within two-weeks of the first follow-up period);
- two telephone numbers were incorrect or disconnected;
- one parent was away for 2 weeks and therefore unavailable for the telephone interview; and
- one telephone number was ‘rung-out’ (i.e., attempted eight times\textsuperscript{520}).

Of the sixty-three parents who completed the first follow-up survey and the telephone interview, 65\% (n=41) were between the ages of 35 and 44 years, 70\% (n=44) were the mother of the Year 6 child and 92\% (n=58) were married. Seventy-one per cent (n=45) had two or three children in their family and in most instances (73\% n=46) the Year 6 child was the first or second-born child. Twenty-two parents (35\%) had a trade or university qualification, most (75\% n=47) were born in Australia and five parents reported being of Aboriginal or Torres Strait Islander origin.

The data were categorical and therefore the Kappa statistic was used to measure the agreement between the two measures of parent-child alcohol- and tobacco-related communication. Ratings were allocated to each Kappa score according to recommendations in the literature\textsuperscript{463} and the results are presented in Table 24.

It was possible that several factors contributed to some of the results being less desirable than expected. The measurement validity of self-complete surveys and telephone interviews is often questionable as they both may elicit socially desirable responses albeit to a different extent\textsuperscript{512}. The perceived confidentiality and anonymity inherent in such self-completion surveys, renders this form of data collection less susceptible to social desirability response bias\textsuperscript{521}.

One strategy used to minimise this bias was to assure respondents of confidentiality and anonymity. With regard to the telephone interviews, however, respondents knew the interviewer was aware of their identity, the name of their child and telephone
number. The degree, to which assurances of confidentiality and statements about its voluntary nature facilitated accurate communication of the requested information in the telephone administration, is therefore unclear.

The Kappa scores obtained were also likely to be reflective of a testing effect and therefore conservative. There was an interval between parent completion of the first follow-up questionnaire and administration of the telephone interviews. It was therefore likely that as a result of completing the written follow-up questionnaire, parents may have been prompted to communicate with their child about alcohol and or cigarettes in the intervening period before the telephone administration. In anticipation of a potential testing effect, two questions addressing this issue were included in the telephone administration and parents were asked if they had talked with their Year 6 child about smoking cigarettes and/or drinking alcohol since they completed the first follow-up questionnaire. Forty eight per cent of the parents reported doing so in the time between completing the first follow-up survey and participating in the telephone interview and these results suggest the existence of testing effect.
Table 24: Test-retest stability: Dependent variable parent data at first follow-up (n=63)

<table>
<thead>
<tr>
<th>Questionnaire item</th>
<th>Kappa statistic (standard error)</th>
<th>% agree</th>
<th>Reliability rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic variable for tracking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship to the child in Year 6.</td>
<td>1.00 (0.00)</td>
<td>100</td>
<td>Very good</td>
</tr>
<tr>
<td>Dependent parent-child communication variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration smoking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How long did the last talk about cigarettes last?</td>
<td>0.53 (0.08)</td>
<td>62</td>
<td>Moderate</td>
</tr>
<tr>
<td>Extent of Engagement: Smoking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last time parent talked with child about smoking (or not smoking) cigarettes?</td>
<td>0.21 (0.10)</td>
<td>62</td>
<td>Fair</td>
</tr>
<tr>
<td>When parents talks with child about smoking (or not smoking) cigarettes, what usually happens?</td>
<td>0.48 (0.09)</td>
<td>68.3</td>
<td>Moderate</td>
</tr>
<tr>
<td>Talked specified tobacco topics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about the risks of smoking?</td>
<td>0.19 (0.13)</td>
<td>57.7</td>
<td>Poor</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about how many children actually smoke?</td>
<td>0.36 (0.10)</td>
<td>67.2</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about what the parent wants the child to do if offered a cigarette?</td>
<td>0.24 (0.11)</td>
<td>58.5</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about ways child could refuse offers to smoke?</td>
<td>-0.02 (0.12)</td>
<td>45.5</td>
<td>Poor</td>
</tr>
<tr>
<td>Recency alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When was last time parent talked with child about drinking (or not drinking) alcohol?</td>
<td>0.15 (0.09)</td>
<td>58.7</td>
<td>Poor</td>
</tr>
<tr>
<td>Duration alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How long did the last talk about alcohol last?</td>
<td>0.37 (0.08)</td>
<td>48.4</td>
<td>Fair</td>
</tr>
<tr>
<td>Extent of engagement: Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When parent talks with child about drinking (or not drinking) alcohol, what usually happens?</td>
<td>0.26 (0.09)</td>
<td>61.9</td>
<td>Fair</td>
</tr>
<tr>
<td>Last time parent talked with child about drinking (or not drinking) alcohol, did parent ask for child's opinion?</td>
<td>0.43 (0.09)</td>
<td>63.5</td>
<td>Moderate</td>
</tr>
<tr>
<td>Talked specified alcohol topics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In last 2 weeks has the parent talked with the child about the risks of drinking too much alcohol?</td>
<td>0.20 (0.11)</td>
<td>55.8</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about what the parent wants the child to do if offered alcohol?</td>
<td>0.28 (0.11)</td>
<td>59.6</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 2 weeks has parent talked with the child about ways child could refuse offers to drink alcohol?</td>
<td>0.06 (0.09)</td>
<td>45.2</td>
<td>Poor</td>
</tr>
<tr>
<td>Dependent variable communication in last 4 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In last 4 months has parent talked with the child about the risks of smoking?</td>
<td>0.26 (0.08)</td>
<td>91.3*</td>
<td>Fair</td>
</tr>
<tr>
<td>In last 4 months has parent talked with the child about how many children actually smoke?</td>
<td>0.19 (0.09)</td>
<td>56.9</td>
<td>Poor</td>
</tr>
<tr>
<td>In last 4 months has parent talked with the child about what the parent wants the child to do if offered a cigarette?</td>
<td>0.15 (0.10)</td>
<td>63.2</td>
<td>Poor</td>
</tr>
<tr>
<td>In last 4 months has parent talked with the child about ways child could refuse offers to smoke?</td>
<td>0.27 (0.10)</td>
<td>67.2</td>
<td>Fair</td>
</tr>
<tr>
<td>In the last 4 months has the parent talked with the child about the risks of drinking too much alcohol?</td>
<td>0.16 (0.10)</td>
<td>82.5</td>
<td>Poor</td>
</tr>
<tr>
<td>In last 4 months has parent talked with the child about what the parent wants the child to do if offered alcohol?</td>
<td>-0.07 (0.08)</td>
<td>73.7</td>
<td>Poor</td>
</tr>
<tr>
<td>Question</td>
<td>Rating</td>
<td>Agreement</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about the risks of smoking?</td>
<td>0.35 (0.09)</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about how many children actually smoke?</td>
<td>0.26 (0.09)</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about what the parent wants the child to do if offered a cigarette?</td>
<td>0.41 (0.08)</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about ways child could refuse offers to smoke?</td>
<td>0.37 (0.08)</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about the risks of drinking too much alcohol?</td>
<td>0.38 (0.09)</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about what the parent wants the child to do if offered alcohol?</td>
<td>0.39 (0.09)</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>In the next 2 months how likely is it that the parent will talk with the child about ways child could refuse offers to drink alcohol?</td>
<td>0.41 (0.09)</td>
<td>Moderate</td>
<td></td>
</tr>
</tbody>
</table>

* Lack of variation in responses. Most of agreement limited to one rating choice.
5.11 Independent Variables

The independent variables in this study included the parent and child demographic characteristics and the parent socio-cognitive composite variables (ie, Importance, Confidence, Influence, Outcome Expectancy and Knowledge).

Parent demographic variables included: gender, age, relationship to Year 6 child, highest level of education, occupation, postcode, country of birth, ethnicity, citizenship, marital status, number of children in the family and birth order of the child in Year 6. Student demographic variables included gender and age.

One demographic factor required coding prior to data entry. Main occupation of respondents appeared as an open-ended question in the baseline survey. Responses were coded using The Australian Standard Classification of Occupations\textsuperscript{515}. This system of classifying occupation provided categories for paid work only and therefore no classification for the unpaid roles nominated by respondents such as housewife or carer existed. Given the high proportion of respondents in this category, one additional classification, titled home duties, was introduced.

One new demographic variable was also developed from the post code data provided by parents and information from the 1991 Australian population census (the latest available at the time)\textsuperscript{672}. The new socio-economic variable (SES) had three categories (ie, high, medium and low). Parents who did not provide postcode data, or provided postcodes that did not exist, were allocated the school postcode.

Consistent with the Social Cognitive theoretical premise of this research\textsuperscript{203}, data related to five socio-cognitive variables were collected and reduced to composite scores. The following general strategy was used to obtain the composite scores. First, where appropriate, variables were re-coded so as to be in the same direction. Higher scores indicated more desirable responses. Although there is some debate about whether an answer of ‘ Unsure’ can be regarded as a neutral response\textsuperscript{522}, it was deemed feasible to do so in this research. Responses of ‘Unsure’ were re-coded so they were meaningful in relation to the other response items. Responses of ‘Unsure’ were therefore placed in a neutral position within the context of the agreement scales relating to levels of importance, confidence and perceived
influence in regard to talking with children about smoking cigarettes and drinking alcohol.

Second, the items related to the underlying concept were combined into a mean score. In order to retain as many parent responses as possible, rules were set for the minimum number of items that needed to be answered to be included. If a parent had answered five of seven items, for example, they were allocated a mean score.

Third, if the resultant mean scores were not normally distributed and could not be transformed to achieve normality, they were categorised based on the original response categories. This process was done in such a way that in each instance a higher score indicated a more positive response. For example, higher confidence, greater knowledge, etc.

To illustrate the above process, the data reduction for one socio-cognitive variable, ‘the importance parents reported placing on drug-related communication with their child’ is explained. These data were collected using seven items and reduced to one variable named ‘Importance’. The original responses to each item were scored ‘5’ for Very Important, ‘4’ for Moderately Important, ‘3’ for Unsure, ‘2’ for Somewhat Important and ‘1’ for Not Important and the mean score to the set of items was calculated. (To be allocated a mean score for ‘Importance’, parents had to have responded to at least five of the seven original items.) A higher score (to a maximum of 5), indicated parents placed greater importance on communicating with their Year 6 child about alcohol- and tobacco-related topics.

Using this same process, other socio-cognitive data provided by parents were reduced. Plotting of the subsequent ‘Importance’, ‘Confidence’, ‘Influence’, ‘Outcome Expectancy’ and ‘Knowledge’ variables revealed non-normal distributions. No transformations to achieve normality were possible and the mean scores for these concepts were therefore reduced to categorical data, each as a five-point scale. Further, logical cut-off points were used to categorise parents’ knowledge scores as either excellent, good, average, poor or very poor.
The four remaining socio-cognitive variables related to parents’ beliefs about the use of alcohol and tobacco by their children and other Year 6 children. First, parents’ perceptions regarding how many Year 6 children had tried smoking cigarettes (even a few puffs) both already and in the near future (next six months) were collected. These data were re-coded as being ‘Correct’, ‘Incorrect’ or ‘Didn’t know’. Similarly, the criterion answer for how many children had already tried smoking was established using data provided by the student sample in response to the baseline question of ‘Have you ever smoked a cigarette (even a few puffs)’? The criterion answer for how many of the Year 6 children would smoke before the end of the current year was determined by using data provided by the student sample at follow-up to the same item.

Second, data regarding parents’ beliefs about Year 6 children’s lifetime and predicted near-future consumption of alcohol were collected. These data were also re-coded as being ‘Correct’, ‘Incorrect’ or ‘Didn’t know’. The correct answers were established using the same strategy as described for smoking cigarettes above.

5.12 Dependent Variables
The dependent variables in this study consisted of parent-child communication variables. These variables addressed the content and nature of cigarette- and alcohol-related communication. Five dependent variables related to parent-child communication about smoking cigarettes and the remaining five to parent-child discussions about drinking alcohol.

Discussion of Essential Topics
Similar to the socio-cognitive data, those relating to the content of parent-child communication were also reduced to composite variables. To be eligible for inclusion in analyses, parents and students must have responded to at least three of four tobacco items, and at least two of three alcohol items. Those who selected ‘No’ or ‘Uncertain’ were re-coded (for the same reasons as explained earlier) as ‘Not having talked’ about the specific topic in question. A response of ‘Yes’ indicated parent-child communication about the specified topic was reported to have occurred in the last two weeks. A mean score between zero and one was calculated
as the number of topics out of the total items answered. This score was then categorised. For alcohol, the resultant response categories were equivalent to ‘Talked about zero topics’, ‘Talked about one or two topics’, and ‘Talked about three topics’. For tobacco, the response categories included talked about zero, one, two, three, and four topics respectively.

**Nature of Parent-child Communication**

Data related to the nature of parent-child communication were also collected from parents and their Year 6 children. The items relating to whether parents asked for their Year 6 child’s opinion when they talked about smoking cigarettes and drinking alcohol, were combined with the variables assessing who usually does the talking and who usually does the listening in such communication. Cross tabulations were used to determine all possible response combinations and data were then categorised as ‘High engagement’, ‘Low engagement’ or ‘No engagement’. High engagement implied the parent had asked for the child’s opinion the last time they talked about smoking cigarettes/drinking alcohol and the parent and child both talked and listened to each other. Low engagement indicated the parent couldn’t remember asking for the child’s opinion the last time they talked about smoking cigarettes/drinking alcohol and also reported a mixture of only the parent talking and the child listening, and talking and listening to each other. No engagement implied the parent couldn’t remember asking for the child’s opinion or hadn’t talked with the child, and not remembering what happened when they last talked about smoking cigarettes/drinking alcohol. Two new composite variables called ‘Engagement tobacco’ and ‘Engagement alcohol’ were therefore developed.

As well as being used in their original form, the variables addressing the ‘Recency’ of the last parent-child discussion about smoking cigarettes and drinking alcohol, were used to create two new composite variables. The recency variables in their original form had five response categories which were reduced to binary responses (ie, Yes had talked to child and No/Didn’t remember talking with child). The new binary variables were called ‘Ever talked tobacco’ and ‘Ever talked alcohol’.
The response categories of variables relating to the ‘Duration’ of the most recent parent-child discussion about smoking cigarettes and drinking alcohol were used in their original form. The only exception being that the response categories of ‘ Haven’t talked’ and ‘ Didn’t remember’ were combined.

The rationale for combining the ‘Not talked’ and ‘Didn’t remember’ categories was based on the low frequency of parent responses in these categories. Combining the categories was thought to be reasonable because change in a positive direction was being investigated. Further, it was considered that if parents responded ‘They could not remember’, then any communication was likely to have been sufficiently long ago to be inconsequential.

5.13 Intervention Dose Variable
Adequate dosage is critical to the effectiveness of interventions and it is recommended that intervention research monitors and documents dosage levels and then use these data in assessing efficacy. To provide an indication of the extent to which Intervention-group parents had implemented (read) the intervention, a dose variable was computed from the data provided by parents at the first follow-up. Parents were asked what they did with each Information Sheet. Those who responded they had seen the Information Sheet but had not read it or didn’t remember receiving it, were allocated zero dose for that particular Information Sheet. Parents who reported reading some of the sheet, or not recalling how much they read were allocated a low dose. Those who reported reading most, or all, of the Information Sheet, were allocated a dose score of middle and high respectively.

Where Intervention-group parents had responded to at least three of the seven follow-up items addressing what parents did with each Information Sheet, their dose scores were summed. Higher scores (to a maximum of 21) indicated a higher self-reported dose of the intervention. Parents who responded to less than three of the seven items were classified as missing data. The resultant continuous data were categorised using cut-off points as close as possible to tertile separations (33.33% and 66.66%). The subsequent three categories were labelled ‘Lowest dose’, ‘Middle dose’, and ‘Highest dose’. This variable measured the dose
received relative to other parents and was not necessarily an indication of the absolute dose level.

In addition to collecting intervention dose data at the first parent follow-up, dose data from other instruments were also utilised in an attempt at triangulation. Parent Feedback Sheets were collected during the course of the intervention and student perceptions of dissemination and dose were also collected at the first follow-up.

5.14 Other Process Variables
In addition to information regarding dosage of the intervention, other process data were collected from parents, the Year 6 children and their teachers. These variables addressed perceptions of satisfaction, sustainability and importance associated with the parent-directed intervention. The results were presented as frequencies.

An attempt was also made to collect data relating to possible contamination effects\textsuperscript{223}. Parents were asked at baseline and at the first follow-up if they had participated in any ATOD educational activities for parents other than the Children and Drugs Information Sheets (Intervention). They were also asked if they had participated in a parenting skills course. Where parents responded positively, they were asked to provide additional information to enable an assessment of the likelihood, nature and extent of contamination. Information about possible contamination of the intervention was also collected from teachers. They were asked in the Teacher Process Survey, if they had given Year 6 students any ATOD information for parents other than the intervention materials, or if parents of Year 6 students had been invited to attend an ATOD educational evening or seminar at the school. Overall, there were four variables related to contamination.

Consistent with previous research\textsuperscript{497} and theoretical recommendations\textsuperscript{523}, a codebook was developed and included demographic and socio-cognitive variables, parent-child communication variables, an intervention dose variable and the other process variables.
5.15 Data Analyses

Cleaning
Consistent with theoretical recommendations\(^{523}\), when questionnaires were returned they were inspected for data quality and completeness prior to data entry. Where possible, missing data and inconsistencies were followed-up and resolved. Data were analysed using SPSS for Windows Version 10.0\(^{524}\) and significance levels were set at 0.05 or less.

Data analyses began with the preliminary assessment of the parent, student and teacher data sets, to ensure the entry of data had been performed accurately. Frequencies were computed to detect incorrect entries and those identified were further examined and verified using the original questionnaires. Frequencies were also used to verify responses were within the defined range of possible values. Consistent with data analyses recommendations\(^{523}\), in cases where there were insufficient data in response category the data were reduced.

Descriptive statistics
Univariate statistics were computed for the final data sets. Descriptive statistics were undertaken at baseline and follow-ups to determine the demographic and response characteristics of the respondents. Proportions and/or percentages were presented with the respective denominator (n).

Sample representation
Selective and differential attrition were assessed to determine the representation of the parent sample. Differences between the study conditions at baseline and at both follow-up data collections were assessed using Pearson’s Chi-squared test. The demographic and other response characteristics of parents lost to follow-up were compared with those who remained in the study using the same statistical procedure.

Parent and child data sets
As discussed previously, the literature suggests that children’s perceptions of what their parents have said and done regarding ATOD-related communication, is important when children are making ATOD-use decisions. Matching items were
therefore included in the parent and student instruments. The data provided by the parent and his/her Year 6 child therefore needed to be matched. To assess if the procedures for ensuring this happened were successful, an analysis was undertaken to determine if the parent selected by the child as the person who talked to him/her the most about alcohol and tobacco, was the parent who actually completed the baseline and follow-up questionnaires. Percentage agreement was used for this assessment.

After it was ascertained that the same parent had completed the parent questionnaires, the levels of agreement between the responses of parents and their children to equivalent parent-child communication items, were assessed at baseline and at the first follow-up using both percentage agreement.

**Impact of intervention**

As explained earlier, there were parent self-report data for 10 dependent variables. These included tobacco-related parent-child communication (ie, ever talked, recency, duration, level of engagement, specific topics discussed) and alcohol-related parent-child communication (ie, ever talked, recency, duration, level of engagement, specific topics discussed). Separate regression analyses were conducted for each of the dependent variables and permitted the assessment of the relative contribution of several independent variables on each dependent variable. Ordinal Logistic Regression was used to identify significant differences between study conditions for the ordinal dependent variables. Multinomial Logistic Regression was substituted where either, the statistical assumptions of Ordinal Logistic Regression were not met or the categorical data were not ordinal.

In each of the 10 analyses, the first step involved considering the proportion of parents in each response category at follow-up. The next stage involved checking if any of the parent demographic variables had a statistically significant main effect on each of the dependent variables. This significance was tested in logistic regression models including the response to the dependent variable at baseline and the single demographic variables as predictors. A five per cent level of significance was used. Effect modification was then investigated to determine if any demographic variables had to be accounted for in subsequent regression
modelling of the dependent variables. Any significant interaction effects between demographic variables and study condition were included in the final logistic regression modelling for the relevant dependent variable.

A two-part mediation analysis was also conducted for each of the 10 dependent parent-child communication variables. The purpose of this was to test whether the intervention impacted directly on parent-child communication or indirectly through the socio-cognitive variables. Any significant intervention effects on the socio-cognitive variables were identified and any found to be significantly affected by the intervention were then analysed to determine their independent moderating effect on the dependent parent-child communication variables.

The final logistic regression model for each dependent parent-child communication variable was fitted with the dependent variable, baseline score of the dependent variable, study condition, any significant demographic variable and any significant interactions and/or mediating effects. Where a variable was found to be a significant predictor, all possible comparisons between categories of the predictor were investigated for significant differences. Odds ratios and asymptotic confidence limits (95%) were constructed from the fitted logistic parameters to indicate the magnitude of any statistically significant differences between conditions.

**Dose-response effects**

Finally, logistic regression analyses were also used to identify significant dose-response effects. Effect modification was investigated to determine if any demographic variables had to be accounted for in subsequent regression modelling of the dose-response effects. Any significant interaction effects between demographic variables and dose were included in the final modelling for each dependent variable.

The fit of the logistic regression models was assessed using the Hosmer-Lemeshow statistic or the deviance, as appropriate.
**Decay/sleeper of intervention effects**

Decay of intervention effects on the parent-child dependent variables was investigated as were any sleeper effects. Frequencies of data collected from parents at the second follow-up were examined and any differences between study conditions were identified using Pearson’s Chi-squared analyses.

**Shared variance**

In this research, individual parents were not sampled independently of other parents. Instead schools were sampled, and as such parents were presumed to be more alike in their responses than if they were sampled independent of the school\(^{525}\). While most studies have found relatively little dependence among observations in the nested structures that occur in school-based studies\(^{482, 526}\), even small dependencies must be taken into account as they can bias significance tests\(^{525}\). If not modelled in statistical analyses, dependence among observations is known to inflate Type I error (i.e., the probability of rejecting the null hypothesis when it is true)\(^{525}\). Multilevel modelling (using MlwiN) of the dependent parent-child communication variables indicated non-significant shared variance and thus these analyses are not presented.

### 5.16 Chapter Summary

Described in this chapter were the methods used to implement a Randomised Comparison Trial designed to determine the impact of a parent-directed ATOD educational intervention on several parent-child communication outcomes. Six specific research objectives were identified. The research design and sample selection and recruitment techniques, appropriate to a school-based parent intervention trial, were described. A parent-directed ATOD educational intervention, designed to assist parents to talk with their Year 6 children about smoking cigarettes and drinking alcohol, was developed, implemented and evaluated. Seven data collection instruments were developed and standardised data collection procedures were established. Both process and impact variables were identified and data reduction techniques described. Finally, the data analyses techniques were documented.

Also presented in this chapter were the methodology and results of analyses relating to validity of the intervention materials and reliability and validity of data collection
instruments. Validity analyses of the parent-directed intervention implemented in this research indicated that the theoretical domains were adequately covered (content validity) and the messages intended for parents were unambiguous (face validity). Validity analyses of the parent and student data collection instruments suggested the data obtained had validity.

The reliability analyses of the parent and student data collection instruments indicated mostly acceptable test-retest stability. Further, it is likely that items in the parent and student questionnaires had greater reliability than that detected due to the impact of testing effects and a lack of variance in responses.

The reliability ratings of the dependent data collected from parents at the first follow-up were assessed using two data collection methods (written and oral administration) and the agreement was found to be mostly Fair or Poor. Whether these results provided an accurate reflection of the instrument's reliability or were a reflection of testing effects and/or social desirability differences inherent in the two data collection methods, could not be conclusively determined. The existence of a testing effect was, however, confirmed as parents reported in the telephone interview that completion of the written questionnaire prompted them to talk with their children about topics raised in the questionnaire.
CHAPTER 6: RANDOMISED COMPARISON TRIAL: RESULTS

6.1 Introduction

Presented in this chapter are the demographic and response characteristics of the study sample (parents), followed by the process and impact evaluation results of the parent-oriented intervention implemented in this research.

6.2 Demographic and Response Characteristics

Data in this section are related to the characteristics of the study sample including baseline and follow-up response and completion rates, baseline differences, sample representation and the extent to which the study sample remained intact from baseline to follow-up.

Response Rates

As shown in Table 25, baseline questionnaires were administered to 1483 parents resulting in a response rate of 90.2% and a completion rate of 81.0%. Parents who returned a completed baseline questionnaire (n=1201) were deemed the study sample and followed-up twice after the completion of the intervention.

Overall, 39 (2.6%) parents withdrew consent. Eight withdrew prior to the collection of baseline data and 13 parents (0.8%) actively withdrew their consent when they received the baseline questionnaire. Eighteen additional parents (1.2%) withdrew their consent during the course of the intervention. Most of these parents (n=11) withdrew after they received the first instalment of the intervention. The baseline
data collected from parents (and their child) prior to their withdrawal of consent were shredded and therefore removed from the data sets.

Eighty-eight parents (7.3%) were lost to follow-up between the baseline data collection and the first follow-up (Table 25). Fifty-four Year 6 students left their school and hence the parent could not be contacted. Eighteen of the parents who withdrew consent did so during the course of the intervention. That is, after completing the baseline questionnaire but prior to the first follow-up data collection. Thirteen parents, who completed a baseline questionnaire, did not identify their relationship to the Year 6 child, so could not be tracked and included in the study sample. Three of the first follow-up questionnaires were not returned due to a family break-up, student suspension and parental ill health. Prior to the administration of the first follow-up questionnaire the study sample was therefore reduced by 7.3%.

The first follow-up questionnaire was administered to 1113 parents of which approximately one quarter (25.4% n=283) either did not respond (n=218) or returned a blank questionnaire (n=65). Complete data were obtained from 69.1% (n=830) of the original study sample at the first follow-up (Table 25).

The sample size was reduced by a further 28.4% (n=236) between the first and second follow-up. Much of this reduction was initiated by the researcher and resulted from the timing of the second follow-up. Just over half (52.5%, n=124) of the sample who had completed the first follow-up were not administered the second follow-up questionnaire. This was because for three months to elapse since they completed the intervention, the second follow-up needed to be administered during the end-of-year school holiday period and this was not feasible.

A further 100 parents did not return the first follow-up questionnaire in time to be included in the database for the second follow-up. Seven parents who completed the first follow-up questionnaire were not the same people who provided baseline data and were therefore removed for the second follow-up. Three students left their school between the first and second follow-up and their parents could not be tracked. Two parents, who provided data at the first follow-up, did not identify their relationship to the child in Year 6 and therefore could not be tracked.
The sample size immediately prior to the administration of the second follow-up was therefore 594 parents, representing a 50.5% reduction of the baseline sample. As shown in Table 25, complete data were obtained from 24.5% (n=294) of the original study sample at the second follow-up.

Table 25: Study sample: Response rates

<table>
<thead>
<tr>
<th>Instrument Description</th>
<th>Lost to follow-up n</th>
<th>Administered n</th>
<th>Response: returned questionnaire n (%)</th>
<th>Response: completed and returned questionnaire n (%)</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td></td>
<td>1485</td>
<td>1338 (90.2)</td>
<td>1201 (81.0)</td>
<td>1201 (81.0)</td>
</tr>
<tr>
<td>Follow-up 1</td>
<td>88</td>
<td>1113</td>
<td>895 (80.4)</td>
<td>830 (74.6)</td>
<td>830 (69.1)*</td>
</tr>
<tr>
<td>Follow-up 2</td>
<td>236</td>
<td>594</td>
<td>300 (50.5)</td>
<td>294 (49.5)</td>
<td>294 (24.5)*</td>
</tr>
</tbody>
</table>

*These returns included parents who returned the questionnaire but chose not to answer any questions

* Denominator = 1201

Sample Characteristics

The study sample comprised 1201 parents with a child in Year 6 at primary school in 1999. The majority of the respondents were either the mother or stepmother (75% n=901) of the child in Year 6. Most were aged between 30 and 40 years (63.0% n=757), were married (78.3% n=940) and had two or three children (70.8% n=850). The Year 6 children were mostly the first (37.4% n=449) or second (34.0% n=408) child born in the family. The most frequently cited main occupation was home duties (37.7% n=453). The majority of the sample had not previously participated in formal parenting (85.4% n=1026) or communication (93.0% n=1117) skills training.

Forty-eight per cent of the sample (n=582) resided in suburbs where the postcode was classified by SEIFA (Australian Bureau of Statistics 1991 Census Socio-economic Indexes for Areas) as low socio-economic status. Almost half the study sample (49.3% n=592) reported completing less than Year 12 at secondary school and 13.4% (n=161) reported completing a university-level qualification. While just over half of the sample (55% n=660) reported being born in Australia, most reported being Australian citizens (86.3% n=1036) and being of non-Aboriginal or non-Torres Strait Islander origin (98.9% n=1188). Most of the remainder of the sample was born in England, Scotland or New Zealand (27.9% n=335).
**Baseline Differences**

As shown in Table 26, within the study sample, there were significant differences between study conditions at baseline for six demographic variables. There was an association between parental age and the study condition ($\chi^2=22.67$, df=10, p=0.017). Intervention-group 2 had a lesser proportion of 35-40 year old parents (40.4% n=135) compared with Intervention-group 1 (44.4% n=221) and the Comparison Group (45.8% n=160). Compared to Intervention-group 1 (19.3% n=86), there were relatively higher proportions of parents aged under 35 years in Intervention-group 2 (59.9% n=88) and the Comparison Group (25.8% n=90). There was also a higher proportion of parents who were aged 41-50 years in Intervention-group 1 (34.3% n=171) than in either Intervention-group 2 (30.9 n=103) or the Comparison Group (27.2 n= 95).

There were differences between highest level of education and study condition ($\chi^2=23.75$, df=12, p=0.021). There were higher levels of university-educated parents in Intervention-groups 1 and 2 and higher levels of TAFE, trade or business qualifications reported among Comparison-group parents.

The socio-economic status (SES) of parents was also associated with study condition ($\chi^2=303.30$, df=4, p=0.000). There were more parents of high SES in Intervention-group 2 (31.0% n=106) than there were in Intervention-group 1 (3.0% n=15) or the Comparison Group (18.7% n=66). When compared to Intervention-group 2 (14.3%) and the Comparison Group (19.8%) there were more medium SES parents in Intervention-group 1 (61.7% n=312). There were more parents of low SES in the Comparison Group (61.5% n=217) than in either Intervention-group 1 (35.4% n=179) or Intervention-group 2 (54.7% n=187).

The composition of the study conditions were different in terms of where the parents were born ($\chi^2=28.66$, df=4, p=0.000). More parents in Intervention-group 1 (60.9% n=300) were born in Australia compared to those in Intervention-group 2 (54.5% n=181) and the Comparison Group (49.4% n=168). There was a greater proportion of parents in the Comparison Group (33.9% n=115) who were born in England or
Scotland than in Intervention-group 1 (18.0% n=89) or Intervention-group 2 (23.2% n=77).

There were differences between study conditions in the citizenship status of the study sample ($\chi^2=8.70$, df=2, p=0.013). More parents in Intervention-group 1 (89.5% n=445) were Australian citizens compared to those in Intervention-group 2 (85.3% n=285) and the Comparison Group (82.6% n=280).

There was an association between having participated in a previous parenting skills course and study condition ($\chi^2=12.15$, df=2, p=0.002). Significantly more parents in Intervention-group 2 (18.3% n=61) and in Intervention-group 1 (15.9% n=78) had participated in a parenting skills course than those in the Comparison Group (9.3% n=32).

Within the study sample, there were also baseline differences between study conditions for one socio-cognitive variable. Study condition was associated with parents expecting to feel embarrassed when talking with their Year 6 child about smoking cigarettes and drinking alcohol. Although most parents disagreed with this statement, higher levels of strong disagreement were evident in Intervention-group 1 parents (59.5% n=290) and Intervention-group 2 parents (53.9% n=178) than Comparison-group parents (48.0% n=168). While there were significant differences between study conditions for the raw data of this socio-cognitive variable at baseline, there were no significant differences detected for this or any of the other socio-cognitive composite data used in subsequent data analyses.

Finally, with regard to differences between study conditions at baseline, there were no significant differences detected between study conditions for any of the dependent parent-child communication variables.
Table 26: Study sample: Statistically significant differences at baseline

<table>
<thead>
<tr>
<th>Variables</th>
<th>Condition</th>
<th>Overall</th>
<th>Init. Grp 1</th>
<th>Init. Grp 2</th>
<th>Comp. Grp</th>
<th>( \chi^2 ) (df)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>n=1201</td>
<td>n=506</td>
<td>n=442</td>
<td>n=353</td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td></td>
<td></td>
<td>4 (0.3)</td>
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<td>0 (0.0)</td>
<td>22.67</td>
</tr>
<tr>
<td>25-29</td>
<td></td>
<td></td>
<td>42(3.6)</td>
<td>14 (2.8)</td>
<td>20 (4.0)</td>
<td>8 (2.3)</td>
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</tr>
<tr>
<td>30-34</td>
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<td></td>
<td>228(19.3)</td>
<td>81 (16.3)</td>
<td>65 (19.5)</td>
<td>82 (23.5)</td>
<td></td>
</tr>
<tr>
<td>35-40</td>
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<td>516(43.7)</td>
<td>221 (44.4)</td>
<td>135 (40.4)</td>
<td>160 (45.8)</td>
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</tr>
<tr>
<td>41-44</td>
<td></td>
<td></td>
<td>248(21.0)</td>
<td>115 (23.1)</td>
<td>69 (20.7)</td>
<td>64 (18.3)</td>
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<td>56 (11.2)</td>
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<td>6 (1.8)</td>
<td>1 (0.3)</td>
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<td>1 (0.3)</td>
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<td>8 (2.4)</td>
<td>23.75</td>
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<td>Yr 10 secondary</td>
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<td></td>
<td>314 (26.9)</td>
<td>136 (27.4)</td>
<td>86 (25.8)</td>
<td>92 (27.2)</td>
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<tr>
<td>Yr 11 secondary</td>
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<td>122 (10.4)</td>
<td>54 (10.9)</td>
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<tr>
<td>Yr 12 secondary</td>
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<td>71 (14.3)</td>
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<td>39 (11.5)</td>
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<td>66 (13.3)</td>
<td>59 (17.7)</td>
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<td></td>
<td>187 (15.6)</td>
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<td>106 (31.0)</td>
<td>66 (18.7)</td>
<td>503.30</td>
</tr>
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<td>431 (35.9)</td>
<td>312 (61.7)</td>
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<td>70 (19.8)</td>
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<td>Low</td>
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<td>179 (35.4)</td>
<td>187 (54.7)</td>
<td>217 (61.5)</td>
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<td>1010 (86.3)</td>
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<td>300 (60.9)</td>
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<td>41 (12.1)</td>
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<td></td>
<td></td>
<td>999 (85.4)</td>
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<td>171 (14.6)</td>
<td>78 (15.9)</td>
<td>61 (18.3)</td>
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<tr>
<td>When I talk with my Year 6 child about smoking cigarettes and drinking alcohol I will feel embarrassed because my child might think my views are out of date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
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<td></td>
<td>24 (2.1)</td>
<td>9 (1.8)</td>
<td>6 (1.8)</td>
<td>9 (2.6)</td>
<td>17.43</td>
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<td>42 (3.6)</td>
<td>15 (3.1)</td>
<td>17 (5.2)</td>
<td>10 (2.9)</td>
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<tr>
<td>Disagree</td>
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<td>440 (37.8)</td>
<td>164 (33.7)</td>
<td>120 (36.4)</td>
<td>136 (45.1)</td>
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<td>290 (59.5)</td>
<td>178 (53.9)</td>
<td>168 (48.0)</td>
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<td>9 (2.7)</td>
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<td>38</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Cells with low numbers were collapsed to meet the assumptions of chi-square analyses.

* Based on terciles of postcode level 1991 Western Australian census data for the Index of Socio-economic Disadvantage of the parents' suburb postcode (or postcode of student's school where parent postcode data was missing).

* Totals do not add to entire sample due to missing data.
Sample Representation

Selective attrition between the sample parents lost to follow-up was assessed. As shown previously in Table 25, 92.7% (n=1113) and 49.5% (n=594) of the original study sample (n=1201) were administered the first and second follow-up questionnaires respectively. Selective attrition was examined at each of the follow-up times by comparing the baseline demographic, socio-cognitive and parent-child communication data provided by parents who were administered follow-up questionnaires and responded (respondents), with those who did not respond at all or returned a blank questionnaire (non-respondents).

Selective Attrition: Follow-up 1

At the first follow-up, sample and lost-to-follow-up parents differed significantly on six variables (Table 27). These included marital status (p=0.020); SES group (p=0.000); perception of how many Year 6 children have tried smoking cigarettes (p=0.001); duration of the last parent-child discussion about drinking alcohol (p=0.034); knowledge; and possibly, previous participation in a drug education course for parents (p=0.047).

As shown in Table 27, a greater proportion of respondents (80.5% n=656) than non-respondents (77.0% n=211), were married and more respondents (7.9% n=64) than non-respondents (4.3% n=12), had participated in a previous drug education course for parents. In terms of SES group, the highest percentage of non-respondents (47.9% n=134) came from the medium SES group and the highest percentage of respondents came from the low SES group (50.2% n=417).

At the first follow-up, half of the respondents (49.9% n=413) reported an accurate perception of how many of the Year 6 children had tried smoking cigarettes while just over half of the non-respondents (52.3% n=147) indicated they didn’t know. In terms of knowledge about the family factors that may influence children’s ATOD use, more non-respondents (82.2% n=228) achieved good or excellent scores than did respondents (78.8% n=651).

With regard to the parent-child communication data, at the first follow-up there were significantly more non-respondents (24.7% n=68) than respondents (17.1% n=140)
who reported not having talked with their Year 6 child about alcohol, or reported not remembering the duration of the last alcohol-related discussion.

Selective Attrition: Follow-up 2
At the second follow-up, sample and non-respondent parents differed significantly only on SES group (p=0.014) and country of birth (p=0.034) (Table 27). There was a higher response rate (24.1% n=71) among the high SES group and there was a higher non-response rate in both the medium SES group (33.0% n=99) and low SES group (52.3% n=157). A relatively higher percentage of respondents were born in England or Scotland (31.5% n=91) while a higher proportion of non-respondents were born in countries other than Australia, New Zealand, England or Scotland (16.3% n=48).
Table 27: Study sample: Statistically significant selective attrition

<table>
<thead>
<tr>
<th>Variables</th>
<th>Follow-up 1</th>
<th>Non-res.</th>
<th>χ² (df)</th>
<th>p</th>
<th>Follow-up 2</th>
<th>Non-res.</th>
<th>χ² (df)</th>
<th>p</th>
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<td>n=252^a</td>
<td>n=250^a</td>
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<td>n (%)</td>
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<td>n (%)</td>
<td>n (%)</td>
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<td>How many in Yr 6 child's class have tried smoking cigarettes?</td>
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<td>(4) 0.034</td>
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<td>&lt;5 mins</td>
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<td>79 (28.7)</td>
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<tr>
<td>About 5 mins</td>
<td>185 (22.6)</td>
<td>60 (21.8)</td>
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<tr>
<td>&gt;5 mins &lt; 10 mins</td>
<td>150 (18.3)</td>
<td>35 (12.7)</td>
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<tr>
<td>&gt;10 minutes</td>
<td>108 (13.2)</td>
<td>33 (12.0)</td>
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<tr>
<td>Not talked or didn't remember</td>
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<td>68 (24.7)</td>
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<td></td>
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</tbody>
</table>

* Totals do not add to entire sample due to missing data.
* Cells with low numbers collapsed to meet the requirements of chi-square analysis

Differential Attrition: Follow-up 1
Differential attrition was examined by comparing the demographic, socio-cognitive and the parent-child communication data of the non-respondent parents between each of the three study conditions. Of the 1113 questionnaires administered at the first follow-up, 283 were not returned, and there were significant differences between study conditions in the demographic characteristics of these non-respondents (Table 28). The variables affected included age (p=0.027), birth order of Year 6 child (p=0.026), highest level of education (p=0.031) and SES group (p=0.000).
As shown in Table 28, there were significant differences between the three study conditions in terms of the age of non-respondents, however, differences already existed for the full sample at baseline and the differences detected between the conditions of the non-respondents were similar. That is, there was a greater proportion of older parents (those aged over 35 years) in Intervention-group 1 (80.0% n=116) compared with Intervention-group 2 (68.0% n=68) and the Comparison Group (67.6% n=19).

There were also significant differences evident for the birth order of the non-respondents' Year 6 children. There was a slightly higher proportion of non-respondents whose Year 6 child was the second or third born child in the family in Intervention-group 1 (57.0% n=81) compared to Intervention-group 2 (54.5% n=54) or the Comparison Group (54% n=148).

Differences between the highest education level of the non-respondents were slightly larger than those evident at baseline for the full sample. They were, however, in the same direction as the baseline differences. That is, there were a higher percentage of trade, TAFE or business college qualifications in the Comparison Group (32.4% n=11) compared to either Intervention-groups 1 or 2 (25.5% n=36 and 23.0% n=23 respectively). Also, consistent with baseline differences, there were a higher percentage of non-respondents in Intervention-group 2 with a university qualification (21.0% n=21) and Intervention-group 1 (14.9% n=21) than in the Comparison Group (2.9% n=1).

Significant differences existed between the study conditions in terms of the SES group of the non-respondents at the first follow-up but they also followed a similar pattern to those found at baseline. That is, there was a greater percentage of medium SES non-respondents from Intervention-group 1 (80.0% n=66) than from Intervention-group 2 (12.9% n=13) or the Comparison Group (14.7% n=5). A greater proportion of high SES non-respondents came from Intervention-group 2 (23.8% n=24) than from Intervention-group 1 (0.7% n=1) or the Comparison Group (11.8% n=4). Finally, there was a greater percentage of low SES non-respondents in the Comparison Group (73.5% n=25) than in Intervention-group 1 (19.3% n=28) or Intervention-group 2 (63.4% n=64).
Differential Attrition: Follow-up 2

At the second follow-up significant differences were apparent between the study conditions related to non-respondent parents previously attending a parenting course (p=0.028). The differences were, however, consistent with those found at baseline. That is, of the non-respondents who had previously attended a parenting-skills course, significantly fewer (7.4% n=9) came from the Comparison Group than either Intervention-groups 1 or 2 (16.5% n=15 and 19.8% n=16 respectively).

Significant differences were evident between the study condition of the non-respondents and their citizenship (p=0.016). The differences were largely consistent with those evident at baseline for the entire sample. The only exception being there was a lesser percentage of non-respondents who reported being non-Australian in Intervention-group 2 (0.9%) than at baseline (14.7%).

The significant differences between study conditions regarding the country of birth (p=0.036) and SES group (p=0.000) of the non-respondents at the second follow-up, were consistent with those evident for the full sample at baseline.

With regard to non-respondents' parent-child communication data, differences did not appear to exist between study conditions at the second follow-up. There was, however, a marginally significant difference (p=0.049) between study conditions of the non-respondents regarding ever having talked about smoking cigarettes with their Year 6 child. Compared to the other study conditions, more non-respondents in Intervention-group 1 reported not remembering if they had talked with their child about this topic, and relatively more non-respondents in the Comparison Group reported having had this discussion with their child.
### Table 28: Study sample: Statistically significant differential attrition

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<tr>
<th>Variables</th>
<th>Follow-up 1</th>
<th></th>
<th>Follow-up 2</th>
<th></th>
<th>( \chi^2 ) (df)</th>
<th>( p )</th>
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<td></td>
<td>In 1 Gp</td>
<td>In 2 Gp</td>
<td>Comp Gp</td>
<td>In 1 Gp</td>
<td>In 2 Gp</td>
<td>Comp Gp</td>
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<td>n=145(^a)</td>
<td>n=101(^a)</td>
<td>n=34(^a)</td>
<td>n=92(^a)</td>
<td>n=81(^a)</td>
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<td>Age (^b)</td>
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</tr>
<tr>
<td>England or Scotland</td>
<td>11 (12.0)</td>
<td>19 (23.4)</td>
<td>36 (29.7)</td>
<td>0.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>2 (2.2)</td>
<td>3 (3.7)</td>
<td>5 (4.1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>13 (14.1)</td>
<td>16 (19.7)</td>
<td>19 (15.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in a parent skills course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.14</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>76 (83.5)</td>
<td>65 (80.2)</td>
<td>112 (92.6)</td>
<td>(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>15 (16.5)</td>
<td>16 (19.8)</td>
<td>9 (7.4)</td>
<td>0.028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>132.0</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1 (0.7)</td>
<td>24 (23.8)</td>
<td>4 (11.8)</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>116 (80.0)</td>
<td>13 (12.9)</td>
<td>5 (14.7)</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>28 (19.3)</td>
<td>64 (63.4)</td>
<td>25 (73.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent-child communication variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever talked smoking cigarettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.54</td>
<td></td>
</tr>
<tr>
<td>Didn't remember</td>
<td>10 (10.6)</td>
<td>3 (3.6)</td>
<td>6 (4.9)</td>
<td>0.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2 (2.1)</td>
<td>5 (6.0)</td>
<td>1 (0.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>82 (87.2)</td>
<td>75 (90.4)</td>
<td>115 (94.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Totals do not add to entire sample due to missing data.

\(^b\) Cells with low numbers collapsed to meet the requirements of chi-square analysis.
Identification of Sample Parents at Follow-ups

To ensure each parent’s data could be matched to that of his/her baseline and his/her child’s data, it was important to retain the baseline sample of responding parents (i.e., the father, mother or other carer who responded to the baseline questionnaire). Differences between whom the children nominated as the person to participate in the study and who actually completed the questionnaires at baseline and follow-ups were investigated. Likewise, whether students nominated the same adult at baseline and the first follow-up was checked. In addition, checking was undertaken to ensure the study sample was intact. That is, the same adult completed each questionnaire. As the results in Table 29 show, percentage agreement and chance-corrected proportional agreement (Kappa statistic) indicated parents were successfully identified at both follow-ups and the parent-child data were accurately matched.

Table 29: Study sample: Identification at follow-ups

<table>
<thead>
<tr>
<th>Data collection (n)</th>
<th>Kappa statistic (Standard error)</th>
<th>agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent identified by student at baseline = parent who completed baseline parent questionnaire</td>
<td>1151</td>
<td>0.74 (0.02)</td>
</tr>
<tr>
<td>Parent identified by student at first follow-up = parent who completed first follow-up questionnaire</td>
<td>810</td>
<td>0.57 (0.03)</td>
</tr>
<tr>
<td>Parent identified by student at baseline = parent identified by student at first follow-up</td>
<td>1252</td>
<td>0.56 (0.02)</td>
</tr>
<tr>
<td>Parent who completed baseline questionnaire = parent who completed first follow-up questionnaire</td>
<td>828</td>
<td>0.97 (0.01)</td>
</tr>
<tr>
<td>Parent who completed baseline questionnaire = parent who completed second follow-up questionnaire</td>
<td>294</td>
<td>0.97 (0.02)</td>
</tr>
<tr>
<td>Parent who completed first follow-up questionnaire = parent who completed second follow-up questionnaire</td>
<td>292</td>
<td>0.96 (0.02)</td>
</tr>
</tbody>
</table>

*Data were not collected from students at the second follow-up

Section Summary

Presented in the previous section were data related to the characteristics and representation of the study sample. The number of parents eligible for inclusion in the study was 1483, 1201 of which, returned a completed baseline questionnaire (81.0%) and constituted the study sample. Almost 93% of the study sample were administered the first follow-up survey (n=1113) of which 830 were returned completed, representing a completion rate of 74.6%. The second follow-up survey was administered to 594 parents, 49.5% of which were returned completed. Overall, useable data were obtained from 69.1% (n=830) and 24.5% (n=294) of the study sample at the first and second follow-ups respectively.
There were significant differences between study conditions at baseline for six parent demographic variables (age, education, SES, citizenship, country of birth and previous participation in a parenting course). Compared to parents in the Comparison Group, parents in Intervention-group 1 tended to be slightly older, university educated, and had participated in a previous parenting course. Compared to both other study conditions, parents in Intervention-group 1 were also more likely to be in the middle SES group. Compared to those in the other study conditions, parents in Intervention-group 2 were more likely to have been university educated, in a higher SES group and participated in a previous parenting course. Comparison-group parents were more likely to have a trade, TAFE or business college qualification, be in a low SES group and born in the United Kingdom, than parents in the other study conditions were.

Demographic data that were significantly different between conditions at baseline were retained in subsequent statistical modelling of the dependent parent-child communication data. Further, when modelling the dependent communication variables, the baseline scores of the dependent variables were included thus controlling for, to some extent, the demographic differences between conditions at baseline.

There did not appear to be significant baseline differences between study conditions for the socio-cognitive composite variables or the dependent parent-child communication variables.

An examination of attrition revealed differences in the sample representation and, like the baseline differences between study conditions, they were controlled in subsequent analyses. Non-respondents at the first follow-up tended to be not married and from the medium SES group. Overall, the non-respondents had slightly higher knowledge scores but were less likely to have talked with their Year 6 child about drinking alcohol. Respondents’ perceptions regarding how many children in their Year 6 child’s class had tried smoking cigarettes were more likely to be accurate than that of non-respondents. Selective attrition at the second follow-up followed similar patterns to those evident at baseline.
With regard to differential attrition at the first and second follow-ups, significant differences were evident for four and five variables respectively. The pattern of the demographic differences between non-respondents and study conditions, however, were largely consistent with those evident between study conditions for the full sample at baseline.

Finally, analyses revealed that the sample parents were successfully identified at both follow-ups and that parent-child communication data were accurately matched.

6.3 Process Evaluation

To minimise the risk of erroneously attributing observed outcomes to the intervention (Type III error\(^{64, 40}\)), the extent to which the intervention was disseminated to and implemented (ie, read) by Intervention-group parents was assessed. With the exception of two questionnaire items, addressing contamination, process data were not collected from the Comparison Group.

Research Objective 1: Assess the extent to which the parent-directed intervention was disseminated to, and implemented by parents

The extent to which the parent materials were disseminated to parents was assessed using data collected from parents in the two Intervention Groups, the Year 6 children of these parents and the Year 6 teachers of the students. The five-level communication process used to disseminate the intervention to parents and obtain their feedback is illustrated in Figure 3.

Figure 3: Researcher-parent communication process

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Researcher visited each school and delivered envelopes containing the intervention to each classroom teacher in personally addressed pre-packaged class sets.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▼</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Teachers asked by the researcher to distribute each envelope to the Year 6 student to whom it related. Eg, To the Mother of Jack Beatty.</td>
</tr>
<tr>
<td></td>
<td>▼</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Students asked by their teachers to take the envelopes home and deliver them to whom they were addressed.</td>
</tr>
<tr>
<td></td>
<td>▼</td>
</tr>
<tr>
<td>Stage 4</td>
<td>In a letter inside each envelope, parents were requested by the researcher to return their feedback to the classroom teachers via their Year 6 children.</td>
</tr>
<tr>
<td></td>
<td>▼</td>
</tr>
<tr>
<td>Stage 5</td>
<td>Researcher visited each teacher in each school to collect parents' responses.</td>
</tr>
</tbody>
</table>
As the dissemination of the intervention involved classroom teachers, the effectiveness of this process was assessed. Fifty-one teachers were mailed a questionnaire. Sixteen teachers (31.4%) did not return the questionnaire despite being provided with incentives, reply-paid envelopes and being followed-up twice. Overall, 35 teachers (68.6%) returned the questionnaire. Six of the Year 6 classes had two teachers who shared the class on a part-time basis. Where both of the class teachers responded (2 classes), their responses were averaged and where only one of the teachers responded (4 classes) his/her data were used in its original form. Thirty-three cases were therefore available for analysis.

The majority (85% n=28) of the teachers who responded to the survey had a single role in the school (that of Year 6 teacher). Fifty-eight per cent (n=17) of these teachers taught only Year 6 students while 36% (n=11) had a split-level class (either Year 5/6 or Year 6/7). Overall the teachers were very experienced with 91% (n=30) having ten or more years teaching experience. Eighty-eight per cent (n=29) of the teachers were over 30 years of age.

**Dissemination Stage 1**

Class sets of the intervention materials were delivered by hand to Year 6 teachers. One item in the teacher survey asked if they recalled receiving the intervention materials from the researcher. Ninety-one per cent (n=30) responded positively. Two teachers did not recall receiving the materials and one teacher was unsure.

**Dissemination Stage 2**

Teachers were asked by the researcher to distribute envelopes containing the intervention to the students in their classes. One item in the teacher survey was designed to measure the extent to which they did so. Of the teacher respondents who reported receiving the intervention materials, 83% (n=25) reported distributing all five parts of the intervention to their students.

Data assessing the extent of the dissemination of the intervention materials to students were collected from 906 students. The Year 6 students, of parents from both of the intervention groups (n=906) were asked how many envelopes (containing
intervention materials) had been given to them by their teachers. Overall, 49\% (n=444) of students reported being given materials but could not recall how many they had been given. Only nine students (1\%) reported not being given any materials. Forty-six per cent of students (n=417) reported being given three, four or five envelopes to take home.

Analysis was also undertaken to determine whether, according to students, individual teachers had distributed the intervention to the students in their classes. The student data were filtered according to the teachers' identification code and cross tabulations revealed the proportion of Year 6 children in each teacher's class who reported being given intervention materials by their teacher. The results revealed the majority of each teacher's students reported being given the intervention materials to deliver to their parents. That is, they either knew how many envelopes they had been asked to take home or knew they had been given them but couldn't recall the exact number.

Dissemination Stage 3
As students were asked to give the intervention to the adult to whom it was personally addressed, the extent to which this took place was assessed at the first follow-up. Data were collected from students and parents in the intervention groups.

In terms of the extent of dissemination of the intervention materials to parents, students were asked how many of the envelopes they actually took home. Eighty-nine per cent of students (n=804) reported taking all or most of them home, four per cent of students (n=33) reported taking some or a few of them home and eight per cent of students couldn't remember. Ninety-four per cent of students (n=852) reported giving the envelopes to the person to whom they were addressed.

Further evidence of successful delivery of the intervention to parents by children, came by the way of parent data. At follow-up, seven parents (1\%) in the Intervention Groups reported not receiving any of the envelopes containing the intervention. Nine per cent of parents (n=48) reported receiving between one and three Information Sheets and 61\% (n=326) reported receiving four or more Information Sheets. Twenty-nine per cent of parents (n=155) in the Intervention Groups remembered receiving Information Sheets but could not remember how many they received.
Dissemination Stage 4
In a separate attempt to assess the extent of dissemination of the intervention to parents, a feedback sheet was included with each of the five Information Sheets disseminated to parents. While a decline in response from Intervention-group parents was anticipated, it provided an indication of the proportion of parents who reported receiving and opening the intervention materials. From the respondent data shown in Table 30 it appears at least half of the Intervention-group parents received and opened the envelopes containing the intervention, with at least 60%-65% doing so with the initial two Information Sheets.

Table 30: Dissemination of intervention to parents: Return of Feedback Sheets

<table>
<thead>
<tr>
<th>Response</th>
<th>Information Sheet 1</th>
<th>Information Sheet 2</th>
<th>Information Sheet 3</th>
<th>Information Sheet 4</th>
<th>Information Sheet 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n= 993</td>
<td>n= 970</td>
<td>n= 952</td>
<td>n= 944</td>
<td>n= 932</td>
</tr>
<tr>
<td># returned</td>
<td>649</td>
<td>580</td>
<td>475</td>
<td>449</td>
<td>434</td>
</tr>
<tr>
<td>Response rate</td>
<td>65.3%</td>
<td>59.7%</td>
<td>49.5%</td>
<td>47.6%</td>
<td>46.6%</td>
</tr>
</tbody>
</table>

Implementation
The extent to which the intervention materials were implemented by parents (i.e., read) was assessed from data provided by parents in the intervention groups and their children. Eighty-three per cent (n=770) of students reported they thought the parent, to whom they gave the intervention materials, had read all or most of them.

Implementation data were also collected from parents using two instruments. Firstly, one item on the Parent Feedback Sheets asked parents to indicate how much of each Information Sheet they had read. As shown in Table 31, of those Intervention-group parents who returned the Parent Feedback Sheets (response rates ranged from 46.6%-65.3%), the majority (85.1%-90.5%) reported reading all of the information. A very low proportion of parents who returned feedback sheets reported reading none of the information (<2%). The extent to which finding is reflective of parents who had read all or most of the information being more likely to return the feedback sheets than those who read less or none is unknown.
Table 31: Implementation of intervention reported by Intervention-group parents on Feedback Sheets

<table>
<thead>
<tr>
<th>Implementation who % of parents who read all of the information*</th>
<th>Feedback Sheet 1</th>
<th>Feedback Sheet 2</th>
<th>Feedback Sheet 3</th>
<th>Feedback Sheet 4</th>
<th>Feedback Sheet 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=649</td>
<td>n=580</td>
<td>n=449</td>
<td>n=449</td>
<td>n=434</td>
<td></td>
</tr>
<tr>
<td>90.5</td>
<td>87.7</td>
<td>85.7</td>
<td>87.3</td>
<td>85.1</td>
<td></td>
</tr>
<tr>
<td>5.8</td>
<td>8.0</td>
<td>10.2</td>
<td>8.5</td>
<td>9.7</td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td>0.2</td>
<td>0.7</td>
<td>0.5</td>
<td>1.6</td>
<td></td>
</tr>
</tbody>
</table>

*Percentages do not total 100% due to incomplete data on some feedback sheets

In addition to collecting implementation data via the Parent Feedback Sheets, they were also sourced from parents of both intervention groups at the first follow-up. The first parent follow-up parent questionnaire contained several items assessing the extent of implementation of the intervention. Parents were asked to indicate, from a list of options, what happened to each Information Sheet. The majority of parents reported reading all or most of the Information Sheets they received, and only a very small percentage of parents (average 2.6%) reported not reading the intervention materials (Table 32).

Table 32: Implementation of Information Sheets as reported by Intervention-group parents at first follow-up

<table>
<thead>
<tr>
<th>Dose</th>
<th>Red n=535</th>
<th>Green n=535</th>
<th>Blue n=535</th>
<th>Yellow n=535</th>
<th>Orange n=535</th>
<th>Purple n=535</th>
<th>Pink n=535</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read it all</td>
<td>63.4</td>
<td>70.0</td>
<td>66.2</td>
<td>69.8</td>
<td>63.9</td>
<td>62.0</td>
<td>50.7</td>
</tr>
<tr>
<td>Read most</td>
<td>13.8</td>
<td>14.2</td>
<td>12.8</td>
<td>14.0</td>
<td>13.4</td>
<td>11.4</td>
<td>9.9</td>
</tr>
<tr>
<td>Read some/Read it but</td>
<td>3.9</td>
<td>3.6</td>
<td>4.0</td>
<td>4.4</td>
<td>5.0</td>
<td>5.2</td>
<td>4.8</td>
</tr>
<tr>
<td>DR* how much</td>
<td>2.5</td>
<td>2.0</td>
<td>2.6</td>
<td>2.7</td>
<td>2.3</td>
<td>3.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Saw it but didn’t read</td>
<td>16.4</td>
<td>10.2</td>
<td>14.3</td>
<td>9.1</td>
<td>15.5</td>
<td>18.2</td>
<td>31.9</td>
</tr>
<tr>
<td>DR* receiving</td>
<td>101</td>
<td>85</td>
<td>82</td>
<td>85</td>
<td>95</td>
<td>96</td>
<td>121</td>
</tr>
</tbody>
</table>

*As described in the Methods, only five of the seven Information Sheets were disseminated to each parent. That is, not all Information Sheets were disseminated to all parents.

* DR = Didn’t remember

Three additional items in the first parent follow-up survey were also used to ascertain whether parents actually read the intervention. The first item asked about which people in the household read the intervention materials and the majority of parents
(94% n=503) reported they had read the Information Sheets themselves. Only one per cent of respondents (n=5) reported that no one in the household read them.

The second item was designed to identify the purposes served by the intervention and parents were asked to indicate how they used the information contained in the intervention materials. One of the response options was ‘I did not read the materials’. Less than one per cent (0.7% n=4) of respondents reported not reading the intervention materials and this suggests the majority of respondents read at least some of the intervention.

The third item asked parents to indicate how useful they found the content of the intervention and only one per cent (n=5) reported not reading the intervention materials. These results are consistent with those obtained from the Parent Feedback Sheets and confirm the suggestion that the majority of respondents from the intervention groups reported implementing (ie, reading) the intervention.

Dose of Intervention
An overall intervention dose variable for each of the Intervention-group respondents was calculated from the data they provided at the first follow-up. Both continuous and categorical dose variables were developed. With regard to the continuous data, the lowest and highest possible scores were zero and 21 respectively. Of the Intervention-group parents who responded at follow-up (n=465, missing=70), the mean score for dose was 14.7 (with a standard deviation of 5.5) and the median score was 15. (The missing data comprised 70 parents who returned feedback sheets throughout the intervention period but did not return the first follow-up questionnaire.) Table 33 indicates the frequency and percentage of Intervention-group parents in each dose category.
Table 33: Dose of intervention reported by Intervention-group parents at first follow-up

<table>
<thead>
<tr>
<th>Intervention category of dose</th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest dose</td>
<td>108</td>
<td>23.2</td>
</tr>
<tr>
<td>Middle dose</td>
<td>170</td>
<td>36.5</td>
</tr>
<tr>
<td>Highest dose</td>
<td>187</td>
<td>40.3</td>
</tr>
<tr>
<td>Missing</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

The correlation between the intervention-dose scores reported by parents was examined. As explained previously, during the intervention period, parents were asked to complete and return Feedback Sheets within two weeks of receiving each of the five Information Sheets. One item on the feedback sheets asked parents how much of each Information Sheet they had read. Identical data were also collected at the first follow-up (approximately 17 weeks after the commencement of the intervention). The accuracy of the self-reported dose of intervention reported by Intervention-group parents at the first follow-up was examined by comparing their responses to the dose question on each Feedback Sheet, with their responses to the same item on the first follow-up questionnaire.

As shown in Table 34, there was high consistency between the parents' responses after both the short time interval (data collected on each Feedback Sheet) and the longer time interval (data collected at the first follow-up). The percentage agreement between how much of each Information Sheet parents had read immediately, and what they reported about how much they read of each, at the first follow-up, ranged from 75% to 85% with the average agreement being 82%.

Overall, the proportion of parents who reported not remembering receiving a specific Information Sheet when it actually was disseminated to them was low. There were, however, slight differences with the Purple and Pink Information Sheets as these two were remembered less well than the others.
Table 34: Intervention-dose: Agreement between Intervention-group parents’ responses on Feedback Sheets and first follow-up survey

<table>
<thead>
<tr>
<th>Intervention (Title of Information Sheet)</th>
<th>n (missing)</th>
<th>% Agreement</th>
<th>n (% of parents who reported at follow-up but not receiving the Information Sheet when they had returned a completed feedback sheet n (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Information Sheet (Children and drugs: The example parents set makes a difference)</td>
<td>123 (26)</td>
<td>84.5 (82)</td>
<td>3 (3.1)</td>
</tr>
<tr>
<td>Green Information Sheet (Parents’ opinions make a difference)</td>
<td>242 (101)</td>
<td>84.3 (203)</td>
<td>11 (4.5)</td>
</tr>
<tr>
<td>Blue Information Sheet (Children and Drugs: How parents get along with their children makes a difference)</td>
<td>287 (123)</td>
<td>80.8 (232)</td>
<td>25 (8.7)</td>
</tr>
<tr>
<td>Yellow Information Sheet (Children and Drugs: How parents talk with children makes a difference)</td>
<td>294 (126)</td>
<td>84.3 (246)</td>
<td>18 (6.1)</td>
</tr>
<tr>
<td>Orange Information Sheet (Children and Drugs: What parents talk about makes a difference)</td>
<td>270 (117)</td>
<td>80.7 (218)</td>
<td>29 (10.7)</td>
</tr>
<tr>
<td>Purple Information Sheet (Children and Drugs: Balancing the influence of friends)</td>
<td>297 (111)</td>
<td>75.4 (224)</td>
<td>37 (12.4)</td>
</tr>
<tr>
<td>Pink Information Sheet (Children and Drugs: Common questions parents ask – with some answers)</td>
<td>87 (28)</td>
<td>80.4 (70)</td>
<td>12 (13.8)</td>
</tr>
</tbody>
</table>

Research Objective 2: Assess factors related to the dissemination and implementation of the intervention

As part of the process evaluation factors related to the dissemination and implementation of the intervention were assessed. The process data reported by the teachers are presented first, followed by those of the parents in the intervention groups. These data were not collected from Comparison-group parents.

Process Data from Teachers

Teacher satisfaction with the dissemination process was high (Table 35). Teachers considered the intervention (Information Sheets) to be a sustainable means of ATOD-related parent training. Only one teacher (3%) reported he or she would not participate in the project again (Table 36). Teachers who reported they would participate in the project again but only if it was modified (n=6) were given a list and asked to nominate what should be changed. While only six teachers were eligible to respond, ten teachers did so and all responses were included in the analysis. While the results, summarised in Table 37, indicated most teachers wanted most aspects of the project kept the same, three teachers (33.3%) suggested reducing the number of Information Sheets for parents. Four teachers indicated the scheduling of the
Information Sheets (ie, three weeks apart) be changed but did not elaborate in the space provided.

Table 35: Teacher satisfaction with dissemination process

<table>
<thead>
<tr>
<th>Dissemination of intervention</th>
<th>Teachers reporting satisfied or very satisfied (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging of the intervention materials</td>
<td>100 %</td>
</tr>
<tr>
<td>Time required to distribute the parent intervention to Year 6 students</td>
<td>97 %</td>
</tr>
<tr>
<td>Time required to collect parent feedback sheets from students</td>
<td>88 %</td>
</tr>
<tr>
<td>Incentives for students</td>
<td>94 %</td>
</tr>
<tr>
<td>Instructions given regarding how and when to distribute materials</td>
<td>97 %</td>
</tr>
<tr>
<td>Written communication from researcher</td>
<td>94 %</td>
</tr>
<tr>
<td>School visits by researcher</td>
<td>97 %</td>
</tr>
</tbody>
</table>

Table 36: Teacher opinion of the sustainability of the intervention

<table>
<thead>
<tr>
<th>Aspects of sustainability</th>
<th>Responses (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Intervention would work well in other schoolsa</td>
<td>9.1</td>
</tr>
<tr>
<td>I would encourage my school to use the intervention again next yeara</td>
<td>12.1</td>
</tr>
<tr>
<td>Distribution of the intervention took too much time to include it as part of our normal drug educationa</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* Percentages do not total 100% due to missing data
Randomised Comparison Trial: Results

Table 37: Teacher opinions regarding modification of dissemination process

<table>
<thead>
<tr>
<th>Aspects of dissemination (n=16)</th>
<th>Keep the same %</th>
<th>Unsure %</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informing parents before the materials are sent home</td>
<td>93.8</td>
<td>6.3</td>
<td>0</td>
</tr>
<tr>
<td>Providing 5 Information Sheets for parents to read</td>
<td>53.3</td>
<td>13.3</td>
<td>33.3</td>
</tr>
<tr>
<td>Scheduling of the 5 Information Sheets</td>
<td>37.5</td>
<td>25.0</td>
<td>37.5</td>
</tr>
<tr>
<td>Providing incentives for students to deliver materials to parents</td>
<td>68.8</td>
<td>6.3</td>
<td>25.0</td>
</tr>
<tr>
<td>Providing incentives for parents to participate</td>
<td>86.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Personally addressing envelopes to each participating parent</td>
<td>81.3</td>
<td>12.5</td>
<td>6.3</td>
</tr>
<tr>
<td>Including feedback sheets for parents to complete</td>
<td>62.5</td>
<td>25.0</td>
<td>12.5</td>
</tr>
<tr>
<td>Providing incentives for teachers to distribute materials</td>
<td>60.0</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Teachers distribute materials to students who deliver to parents</td>
<td>93.8</td>
<td>0</td>
<td>6.3</td>
</tr>
<tr>
<td>Teachers collect feedback sheets from parents</td>
<td>75.0</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Providing teachers with a class list to keep track of returned materials</td>
<td>81.3</td>
<td>6.3</td>
<td>12.5</td>
</tr>
<tr>
<td>Providing teachers with newsletters re: progress</td>
<td>81.3</td>
<td>18.8</td>
<td>0</td>
</tr>
</tbody>
</table>

*Percentage indicated because only teachers who reported they would participate again if the project was modified were directed to respond to this questionnaire item.

On a four-point scale ranging from unsure to very important, most of the teachers (73.0% n=24) considered that involving parents in the school drug education curriculum was very important. Likewise, the majority (68.0% n=22) of teachers reported that providing drug education for parents at the same time students received drug education at school was also very important. Sixty-eight per cent (n=22) of the teachers considered providing parents with information on how to talk with their children about alcohol and tobacco was very important. The majority of teachers (82.0% n=27) reported that finding an effective means of providing drug education for parents was very important.

Teachers were asked how many classroom drug education lessons students received during the time the intervention was being administered to parents. Only four teachers (12.0%) reported conducting no classroom drug education lessons and three teachers were unsure (9.0%). Most teachers had conducted drug education lessons, with 58.0% (n=19) of teachers reporting between five and eight lessons and 33.0% (n=11) of teachers reporting between one and four lessons.

To assess the likelihood of data contamination, teachers were asked if they had distributed to their Year 6 students, any drug education materials to take home, other
than the parent intervention. Eighty-five per cent of teachers (n=28) reported they had not done so. The remaining five teachers (15%) didn’t know and were later found to be those who shared a class and did not know if the teachers they shared with had distributed anything of this nature. Further checking showed that the teacher they shared with had not distributed other materials to parents.

Also addressing data contamination, teachers were asked if the parents of Year 6 children had been invited to a drug education seminar at the school. Only two teachers responded ‘Yes’ and it was found that the seminar was held after the post-testing of parents was completed.

**Process Data from Intervention-group Parents**

Process evaluation data were collected from the Intervention-group parents who were asked at the first follow-up to indicate their level of agreement with several statements about the nature of the intervention materials. As shown in Table 38, the majority of respondents (93.1% n=498) liked most things about the Information Sheets and didn’t think there were too many (71.2% n=381) or not enough Information Sheets (86.5% n=463). Further, most respondents were happy with the content and presentation of the intervention materials. That is, most disagreed the information provided took too long to read (84.3 n=451), was too hard to read (93.3 n=499) or the colours made the text hard to read (75.8% n=405). Likewise, most respondents reported the Information Sheets contained new information (77.7% n=416) and the information was relevant to their family (77.6% n=415). Finally, the majority of respondents (86.4% n=462) reported they would recommend the intervention for other parents.
Table 38: Intervention-group parents: Satisfaction with intervention materials

<table>
<thead>
<tr>
<th>Statements (n=535)</th>
<th>S. Agree</th>
<th>S. Disagree</th>
<th>Unsure</th>
<th>Missing</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>I liked most things about the Information Sheets</td>
<td>93.1</td>
<td>4.7</td>
<td>2.2</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>There were too many Information Sheets</td>
<td>25.2</td>
<td>71.2</td>
<td>4.2</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>There were not enough sheets</td>
<td>6.4</td>
<td>86.5</td>
<td>7.1</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>The information was too hard to read</td>
<td>4.7</td>
<td>93.3</td>
<td>1.9</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>The Information Sheets took too long to read</td>
<td>13.7</td>
<td>84.3</td>
<td>2.0</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>The information was relevant for my family</td>
<td>77.6</td>
<td>15.8</td>
<td>6.5</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>There was no new information</td>
<td>17.0</td>
<td>77.7</td>
<td>6.1</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>The colours made the sheets hard to read</td>
<td>19.9</td>
<td>75.8</td>
<td>4.3</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>I would recommend the Information Sheets for other parents</td>
<td>86.4</td>
<td>5.5</td>
<td>8.1</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

Intervention-group parents were also asked at the first follow-up to respond to several statements relating to how useful they found the content of the intervention materials. As shown in Table 39, 74.8% (n=400) of parents found all or most of the content of the intervention materials to be useful. The most popular use of the intervention materials reported by respondents was to remind them to talk with their children about drugs (60.7% n=325). The second most popular reported use of the Information Sheets was to help parents to talk with their children about drugs (57.8% n=309) (Table 40).

Table 39: Intervention-group parents: Usefulness of intervention content

<table>
<thead>
<tr>
<th>Usefulness of intervention content</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of the information was useful</td>
<td>29.3</td>
</tr>
<tr>
<td>Most of the information was useful</td>
<td>45.5</td>
</tr>
<tr>
<td>Some of the information was useful</td>
<td>19.7</td>
</tr>
<tr>
<td>Very little of the information was useful</td>
<td>1.3</td>
</tr>
<tr>
<td>None of the information was useful</td>
<td>0.8</td>
</tr>
<tr>
<td>Couldn't remember how much was useful</td>
<td>1.1</td>
</tr>
<tr>
<td>Didn't read any of the intervention</td>
<td>1.1</td>
</tr>
<tr>
<td>Didn't remember receiving intervention</td>
<td>1.2</td>
</tr>
</tbody>
</table>

* Missing data n=16
Table 40: Intervention-group parents: Use of intervention

<table>
<thead>
<tr>
<th>How the information was used</th>
<th>%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>To remind parent to talk with children about drugs</td>
<td>60.7</td>
</tr>
<tr>
<td>To help parent talk with children about drugs</td>
<td>57.8</td>
</tr>
<tr>
<td>To improve personal knowledge about drugs</td>
<td>42.6</td>
</tr>
<tr>
<td>To help partner talk with children about drugs</td>
<td>13.8</td>
</tr>
<tr>
<td>Couldn't remember how information was used</td>
<td>1.3</td>
</tr>
<tr>
<td>Didn't read any of the information</td>
<td>0.7</td>
</tr>
<tr>
<td>Didn't receive the intervention materials</td>
<td>1.3</td>
</tr>
<tr>
<td>Didn't use any of the information</td>
<td>2.6</td>
</tr>
</tbody>
</table>

* Percentages do not total 100 due to the item being multiple response

To assess the reach of the intervention, Intervention-group parents were asked at the first follow-up, to nominate who read the Information Sheets. The results, shown in Table 41, indicate they reached people in addition to whom they were intended.

Table 41: Intervention-group parents: Reach of intervention

<table>
<thead>
<tr>
<th>Who read the Information Sheets?</th>
<th>%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myself</td>
<td>93.6</td>
</tr>
<tr>
<td>My partner</td>
<td>23.9</td>
</tr>
<tr>
<td>My children</td>
<td>22.1</td>
</tr>
<tr>
<td>Another relative</td>
<td>2.1</td>
</tr>
<tr>
<td>A friend</td>
<td>1.1</td>
</tr>
<tr>
<td>A neighbour</td>
<td>0.2</td>
</tr>
</tbody>
</table>

* Percentages do not total 100 due to the item being multiple response

At the first follow-up parents in the intervention groups were asked if they had participated in any drug education activities other than the Parent Intervention. The majority (86.0% n=460) reported they had not and one per cent could not remember (n=5). The 12.3% (n=66) of parents who reported they had participated in some other drug education activity, were asked to indicate the nature of such from a list of options and respondents could select more than one option. The most frequently reported 'other sources' consisted of reading information in a magazine or newspaper
(reported by 65 of the 66 parents) and reading other pamphlets (reported by 55 of the 66 parents).

Many of the strategies promoted in the intervention addressed skills that are usually covered in parenting courses (i.e., communication, positive discipline techniques, active listening etc) and therefore, at the first follow-up, Intervention-group parents were asked if they had participated in such a course during the research period. The majority of parents (98% n=524) reported not having done so.

**Process Data from Comparison-group Parents**
At the first follow-up parents in the Comparison Group were also asked if they had participated in any drug education activities in the period between the baseline and first follow-up data collection points. The majority (89.3% n=258) reported they had not and one parent (0.3%) could not remember. Likewise, 97.7% (n=288) of Comparison-group parents reported not participating in any other parenting skills training during this period.

Differences in contamination between the study conditions at the first follow-up data were assessed using Pearson's Chi-squared test and there did not appear to be any significant differences.

**Section Summary**
Both the dissemination and implementation of the intervention materials were assessed during the intervention period and at the first follow-up. Teachers reported distributing the intervention materials to students, students reported receiving the envelopes and delivering them to the person to whom they were addressed. Almost all the Intervention-group parents reported receiving at least one of the five envelopes containing the intervention via their child and at least half of them reported opening the envelopes that contained the intervention. The reported level of dissemination was likely to be conservative because at least some of the parent non-respondents are likely to have opened the envelopes containing the intervention.

Parents in the intervention groups were asked to report the extent to which they read the intervention materials (i.e., implementation). The majority (85.1%-90.5%) of
parents who returned Feedback Sheets (response rates ranged from 46.6%-65.3%), reported reading all of the intervention. Likewise, at the first follow-up, 93.6% of Intervention-group parents reported reading all of the Information Sheets. Dose measures were developed from the Intervention-group parents’ reports of how much of the intervention they reported reading. The correlation of the dose measures was assessed and found to be high with an average agreement between two measures of 81.5%.

Other process data pertaining to the dissemination and implementation of the intervention were also collected. The majority of the 33 teacher respondents (95.3%) reported feeling satisfied or very satisfied with the procedure used to disseminate the intervention to parents. With regard to the sustainability of the intervention, just under half of these teachers (48%) reported the intervention would work well in other schools and the majority (63.6%) agreed that they would encourage their schools to use the parent intervention again next year. Only 15.1% of the 33 teachers reported distribution of the intervention took too much time. In addition, most teachers reported that most aspects of the dissemination process should not be altered.

Other dissemination-related process data provided by teachers indicated they considered the provision of drug education for parents to be very important and supported the concept of providing such information to parents at the same time as children were receiving drug education lessons in the classroom.

The implementation-related process data collected from the 535 Intervention-group parent respondents indicated only 1.1% didn’t read any of the intervention and 1.5% reported not receiving it. This was supported by other data addressing the reach of the intervention, where 93.6% of Intervention-group parents reported they had read the intervention themselves.

The process data also indicated high levels of parental satisfaction with the intervention. For example, the majority of Intervention-group parents (93.1%) liked most things about the intervention and 77.6% reported the content to be relevant for their families. Almost 75% of Intervention-group parents reported that most or all of the information provided in the intervention was useful. Only 2.1% of Intervention-
group parents reported that very little or none of the intervention material was useful. The main uses of the intervention reported by parents were to remind (60.7%) and help (57.8%) them to talk with their children about drugs and also to improve their personal knowledge (42.6%).

Finally, the process data provided by both teachers and the parent sample (Intervention-groups 1 and 2 and the Comparison Group) indicated little evidence of contamination of the intervention.

6.4 Impact of the Intervention on Communication Outcomes
Separate regression analyses were conducted to test for differences between the study conditions for each of the dependent communication variables. The dependent variables included tobacco-related parent-child communication (i.e., ever talked, recency, duration, level of engagement, specific topics discussed) and alcohol-related parent-child communication (i.e., ever talked, recency, duration, level of engagement, specific topics discussed).

The final logistic regression model for each dependent parent-child communication variable was fitted with the dependent variable, baseline score of the dependent variable, study condition, any significant demographic variables and any significant interactions and/or mediating variables. Specifically, interactions between each of the demographic variables and study condition were tested to determine whether any effect modification was evident. Where study condition was found to be a significant predictor, all possible comparisons between the three study conditions were investigated for significant differences. (The comparisons between the two Intervention Groups are discussed later in Section 6.5) For each dependent variable odds ratios and asymptotic confidence limits (95%) were constructed from the fitted logistic parameters to indicate the magnitude of any differences or effects.

The existence of any intervention effects on each of the socio-cognitive variables (i.e., Importance, Confidence, Influence, Outcome Expectancy, and Knowledge) and consequent effects on the dependent variables, was investigated via two-part mediation analyses. The process was to firstly identify any significant intervention effects on the socio-cognitive variables. If any of the socio-cognitive variables were
significantly affected by the intervention, the second step was to determine their independent moderating effect on the dependent communication variables. These analyses indicated there were no significant mediation effects since the intervention did not impact on any of the socio-cognitive variables. These variables were, therefore, not included in the final modelling of each dependent variable.

Logistic regression was also used to identify dose-response effects. Any significant interaction effects between the demographic variables and the intervention-dose variable were included in the final dose-response models. Data related to how many of the specified tobacco and alcohol topics the study sample reported discussing with their Year 6 children in the two months prior the second follow-up, were collected. The frequencies of these data were examined for differences between study conditions.

**Research Objective 3: Assess the impact of the intervention on the nature of parent-child tobacco-related communication (ie, ever talked, recency, duration, engagement, specific topics) as reported by parents**

**Ever talked about smoking cigarettes with Year 6 child**

In terms of whether parents had ever talked to their Year 6 child about smoking cigarettes, the majority of parents at the first follow-up in Intervention-group 1 (93.4% n=296), Intervention-group 2 (92.8% n=194) and the Comparison Group (90.2% n=266) had done so (Table 42).

<table>
<thead>
<tr>
<th>Table 42: Ever talked about smoking cigarettes with Year 6 child as reported by parents at first follow-up: Cross tabulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Condition</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>n (%)</strong></td>
</tr>
<tr>
<td><strong>Never or DRa</strong></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td><strong>Missing</strong></td>
</tr>
</tbody>
</table>

*a DR = Didn’t remember*

Preliminary analyses found none of the parent demographic variables to be significant predictors of this dependent variable, nor were there any significant
interaction effects present. When baseline scores for ‘Ever talked with Year 6 child about smoking cigarettes’ were controlled for in a binary logistic regression model, statistically significant differences between Intervention-group 1 and the Comparison Group were evident (Table 43). Parents in Intervention-group 1 were almost twice as likely as those in the Comparison Group to have ever talked to their Year 6 child about smoking cigarettes [OR=1.985, 95% CI=(1.065, 3.700)]. There were no significant differences between parents in Intervention-group 2 and those in the Comparison Group.

Table 43: Ever talked about smoking cigarettes: Binary logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable: Ever talked about smoking cigarettes</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.435</td>
<td>0.208</td>
<td>136.455</td>
<td>1</td>
<td>0.000</td>
<td>11.420</td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>-2.086</td>
<td>0.320</td>
<td>42.370</td>
<td>1</td>
<td>0.000</td>
<td>0.124</td>
<td>(0.66, 0.233)</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>0.686</td>
<td>0.318</td>
<td>4.662</td>
<td>1</td>
<td>0.031</td>
<td>1.985</td>
<td>(1.065, 3.700)</td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.494</td>
<td>0.351</td>
<td>1.980</td>
<td>1</td>
<td>0.159</td>
<td>1.639</td>
<td>(0.824, 3.262)</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Didn’t remember
Estimate
Hosmer and Lemeshow χ² statistic = 0.015, df=2, p=0.953
Reference category for the dependent variable: Never or didn’t remember

The impact of the intervention-dose variable on this dependent variable is presented in Table 44. Parents in the highest- and middle-dose categories, responded differently to those in the lowest-dose category. The highest-dose parents were 3.8 times more likely than the lowest-dose parents, to have ever talked about smoking cigarettes with their Year 6 child [OR=3.759, 95% CI=(1.360, 10.389)]. Likewise, parents who reported a middle dose of the intervention were 3.3 times more likely than parents who received the lowest intervention dose, to have ever talked about smoking cigarettes with their Year 6 child [OR=3.349, 95% CI=(1.273, 8.811)]. There were non-significant differences between parents in the middle intervention-dose category and those in the highest-dose group.
Table 44: Ever talked with Year 6 child about smoking cigarettes with Intervention-group parents only: Binary logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Ever talked about smoking cigarettes</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.302</td>
<td>0.338</td>
<td>46.527</td>
<td>1</td>
<td>0.000</td>
<td>0.995</td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never or DR</td>
<td>-1.945</td>
<td>0.447</td>
<td>18.900</td>
<td>1</td>
<td>0.000</td>
<td>0.143</td>
<td>(0.060, 0.344)</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.324</td>
<td>0.519</td>
<td>6.518</td>
<td>1</td>
<td>0.011</td>
<td>3.759</td>
<td>(1.360, 10.389)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>1.209</td>
<td>0.494</td>
<td>5.998</td>
<td>1</td>
<td>0.014</td>
<td>3.349</td>
<td>(1.273, 8.811)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest*</td>
<td>-0.115</td>
<td>0.579</td>
<td>0.040</td>
<td>1</td>
<td>0.842</td>
<td>0.391</td>
<td>(0.286, 2.772)</td>
</tr>
</tbody>
</table>

* Didn’t remember
Estimate

Model repeated with dose variable re-coded so that highest dose was the reference group. (Only summary data presented.)

Heinem and Lemeshow $\chi^2$ statistic = 0.253, df=2, p=0.881
Reference category for dependent variable: Never or didn’t remember

Receivc of last parent-child discussion about smoking cigarettes

With regard to the recency of the last parent-child discussion about smoking cigarettes, at the first follow-up more than half of the parents in each study condition (range=56.3%-66.6%) reported the last time they had talked with their Year 6 child about smoking cigarettes was in the previous two months (Table 45).

Table 45: Recency of last parent-child discussion regarding smoking cigarettes as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Recency of last parent-child talk re: smoking cigarettes</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intv Gp 1 (n=321)</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>1-2 months ago</td>
<td>211 (66.6)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>66 (20.8)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>19 (6.0)</td>
</tr>
<tr>
<td>Never or DR*</td>
<td>21 (6.6)</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
</tr>
</tbody>
</table>

* Didn’t remember

Preliminary analyses revealed non-significant contributions from the parent demographic variables. When baseline scores on this dependent variable were taken into account in a nominal logistic regression, there were significant differences between Intervention-group 1 and the Comparison Group for the previous two months’ response category (Table 46). Parents in Intervention-group 1 were 2.3 times more likely than those in the Comparison Group, to have reported talking with
their Year 6 child about smoking cigarettes in the previous two months [OR= 2.252, 95% CI=(1.302, 4.287)]. There were signs of a possible difference between Intervention-group 2 and the Comparison Group [OR = 1.979, 95% CI = (0.973, 4.022)] but it was not significant. There were no differences between the study conditions when comparing the remaining two response categories (ie, 3-4 months ago and 4-5 months ago) to the reference category (ie, never having talked/not remembering when last having talked with their child about smoking cigarettes). Differences were not anticipated for the 4-5 month response category because this was prior to the implementation of the intervention.

Table 46: Recency of last parent-child discussion regarding smoking cigarettes: Nominal logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th></th>
<th>Est. b</th>
<th>SE.</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 months ago</td>
<td>Intercept</td>
<td>-0.321</td>
<td>0.369</td>
<td>0.756</td>
<td>1</td>
<td>0.384</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>2.743</td>
<td>0.383</td>
<td>51.392</td>
<td>1</td>
<td>0.000</td>
<td>15.538</td>
<td>(7.339, 32.894)</td>
</tr>
<tr>
<td></td>
<td>1-2 months ago</td>
<td>2.743</td>
<td>0.383</td>
<td>51.392</td>
<td>1</td>
<td>0.000</td>
<td>15.538</td>
<td>(7.339, 32.894)</td>
</tr>
<tr>
<td></td>
<td>3-4 months ago</td>
<td>1.740</td>
<td>0.432</td>
<td>16.231</td>
<td>1</td>
<td>0.000</td>
<td>5.695</td>
<td>(2.443, 13.276)</td>
</tr>
<tr>
<td></td>
<td>4-5 months ago</td>
<td>1.194</td>
<td>0.474</td>
<td>6.337</td>
<td>1</td>
<td>0.012</td>
<td>3.299</td>
<td>(1.302, 8.354)</td>
</tr>
<tr>
<td></td>
<td>Never or DR*</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condition</td>
<td>Inv. 1</td>
<td>0.812</td>
<td>0.328</td>
<td>6.115</td>
<td>1</td>
<td>0.013</td>
<td>2.252</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inv. 2</td>
<td>0.682</td>
<td>0.362</td>
<td>3.554</td>
<td>1</td>
<td>0.059</td>
<td>1.979</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>Intercept</td>
<td>-0.881</td>
<td>0.437</td>
<td>4.074</td>
<td>1</td>
<td>0.044</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>2.258</td>
<td>0.452</td>
<td>24.965</td>
<td>1</td>
<td>0.000</td>
<td>9.561</td>
<td>(3.944, 23.181)</td>
</tr>
<tr>
<td></td>
<td>1-2 months ago</td>
<td>2.258</td>
<td>0.452</td>
<td>24.965</td>
<td>1</td>
<td>0.000</td>
<td>9.561</td>
<td>(3.944, 23.181)</td>
</tr>
<tr>
<td></td>
<td>3-4 months ago</td>
<td>1.968</td>
<td>0.496</td>
<td>15.711</td>
<td>1</td>
<td>0.000</td>
<td>7.154</td>
<td>(2.704, 18.928)</td>
</tr>
<tr>
<td></td>
<td>4-5 months ago</td>
<td>1.637</td>
<td>0.535</td>
<td>9.356</td>
<td>1</td>
<td>0.002</td>
<td>5.142</td>
<td>(1.801, 14.682)</td>
</tr>
<tr>
<td></td>
<td>Never or DR*</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condition</td>
<td>Inv. 1</td>
<td>0.430</td>
<td>0.351</td>
<td>1.502</td>
<td>1</td>
<td>0.220</td>
<td>1.538</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inv. 2</td>
<td>0.310</td>
<td>0.387</td>
<td>0.639</td>
<td>1</td>
<td>0.424</td>
<td>1.363</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>Intercept</td>
<td>-1.068</td>
<td>0.508</td>
<td>4.541</td>
<td>1</td>
<td>0.033</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>0.765</td>
<td>0.538</td>
<td>2.026</td>
<td>1</td>
<td>0.155</td>
<td>2.150</td>
<td>(0.749, 6.169)</td>
</tr>
<tr>
<td></td>
<td>1-2 months ago</td>
<td>0.765</td>
<td>0.538</td>
<td>2.026</td>
<td>1</td>
<td>0.155</td>
<td>2.150</td>
<td>(0.749, 6.169)</td>
</tr>
<tr>
<td></td>
<td>3-4 months ago</td>
<td>1.136</td>
<td>0.573</td>
<td>3.922</td>
<td>1</td>
<td>0.048</td>
<td>3.113</td>
<td>(1.012, 9.580)</td>
</tr>
<tr>
<td></td>
<td>4-5 months ago</td>
<td>1.173</td>
<td>0.607</td>
<td>3.733</td>
<td>1</td>
<td>0.053</td>
<td>3.231</td>
<td>(0.983, 10.617)</td>
</tr>
<tr>
<td></td>
<td>Never or DR*</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condition</td>
<td>Inv. 1</td>
<td>0.319</td>
<td>0.435</td>
<td>0.538</td>
<td>1</td>
<td>0.463</td>
<td>1.376</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inv. 2</td>
<td>0.059</td>
<td>0.504</td>
<td>0.014</td>
<td>1</td>
<td>0.906</td>
<td>0.942</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Did not remember
* Estimate
* Prior to implementation of intervention
Deviance=14.896, df=18, p=0.669
Reference category for dependent variable: Never talked/didn’t remember

As shown in Table 47, parents in the highest and middle intervention-dose categories, responded differently to parents in the lowest category. Parents in the highest-dose category were four times more likely than those in the lowest to have
talked with their Year 6 child, about smoking cigarettes, in the previous two months [OR=4.002, 95% CI= (1.390, 11.526)]. Likewise, parents who were in the middle-dose category were 3.6 times more likely than parents in the lowest intervention-dose category, to have done so in the previous two months [OR= 3.590, 95% CI=(1.306, 9.872)]. There were no significant differences between parents in the middle intervention-dose category and those in the highest (Table 47).

Table 47: Recency of last parent-child discussion about smoking cigarettes with Intervention-group parents only: Nominal logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: Recency of last parent-child discussion about smoking cigarettes</th>
<th>Estimate</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.128</td>
<td>0.566</td>
<td>3.970</td>
<td>1</td>
<td>0.046</td>
<td>25.30</td>
<td>(7.107, 90.113)</td>
</tr>
<tr>
<td>Baseline</td>
<td>3.231</td>
<td>0.648</td>
<td>24.86</td>
<td>1</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>1.355</td>
<td>0.572</td>
<td>5.443</td>
<td>1</td>
<td>0.020</td>
<td>3.800</td>
<td>(1.238, 11.663)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>0.927</td>
<td>0.611</td>
<td>2.305</td>
<td>1</td>
<td>0.129</td>
<td>2.528</td>
<td>(0.764, 8.366)</td>
</tr>
<tr>
<td>Never or DR&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.387</td>
<td>0.540</td>
<td>6.603</td>
<td>1</td>
<td>0.010</td>
<td>4.002</td>
<td>(1.390, 11.526)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>1.278</td>
<td>0.516</td>
<td>6.133</td>
<td>1</td>
<td>0.013</td>
<td>3.590</td>
<td>(1.306, 9.872)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.109</td>
<td>0.594</td>
<td>0.034</td>
<td>1</td>
<td>0.855</td>
<td>0.897</td>
<td>(0.280, 2.871)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.507</td>
<td>0.697</td>
<td>0.529</td>
<td>1</td>
<td>0.467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>3.203</td>
<td>0.758</td>
<td>17.86</td>
<td>1</td>
<td>0.000</td>
<td>24.61</td>
<td>(5.573, 108.684)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>2.098</td>
<td>0.691</td>
<td>9.231</td>
<td>1</td>
<td>0.002</td>
<td>8.151</td>
<td>(2.106, 31.552)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>1.548</td>
<td>0.736</td>
<td>4.429</td>
<td>1</td>
<td>0.035</td>
<td>4.704</td>
<td>(1.112, 19.894)</td>
</tr>
<tr>
<td>Never or DR&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.607</td>
<td>0.572</td>
<td>1.124</td>
<td>1</td>
<td>0.289</td>
<td>1.834</td>
<td>(0.598, 5.631)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>0.695</td>
<td>0.547</td>
<td>1.610</td>
<td>1</td>
<td>0.204</td>
<td>2.003</td>
<td>(0.685, 5.857)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.078</td>
<td>0.627</td>
<td>0.020</td>
<td>1</td>
<td>0.889</td>
<td>1.092</td>
<td>(0.320, 3.729)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.421</td>
<td>0.743</td>
<td>0.321</td>
<td>1</td>
<td>0.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>0.948</td>
<td>0.805</td>
<td>1.388</td>
<td>1</td>
<td>0.239</td>
<td>2.580</td>
<td>(0.533, 12.485)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>0.441</td>
<td>0.725</td>
<td>0.371</td>
<td>1</td>
<td>0.543</td>
<td>1.555</td>
<td>(0.376, 6.436)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>0.054</td>
<td>0.810</td>
<td>0.064</td>
<td>1</td>
<td>0.947</td>
<td>1.055</td>
<td>(0.216, 5.158)</td>
</tr>
<tr>
<td>Never or DR&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.249</td>
<td>0.720</td>
<td>0.119</td>
<td>1</td>
<td>0.730</td>
<td>1.282</td>
<td>(0.313, 5.257)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>0.578</td>
<td>0.654</td>
<td>0.781</td>
<td>1</td>
<td>0.377</td>
<td>1.782</td>
<td>(0.495, 6.418)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.329</td>
<td>0.772</td>
<td>0.182</td>
<td>1</td>
<td>0.670</td>
<td>1.390</td>
<td>(0.306, 6.308)</td>
</tr>
</tbody>
</table>

<sup>a</sup>Didn't remember

<sup>b</sup>Eestimate

Model repeated with dose variable re-coded so that highest dose was the reference group (Only summary data presented.)

Deviance=21.539, df=18, p=0.253

Reference category for dependent variable = Never talked/didn't remember
**Duration of last parent-child discussion about smoking cigarettes**

At the first follow-up more than half of the parents in each study condition reported the duration of the last parent-child discussion about smoking cigarettes to be about five minutes or less (Table 48).

Table 48: Duration of last parent-child discussion about smoking cigarettes as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Duration of last parent-child talk re: smoking cigarettes</th>
<th>Inv Gp 1 (n=321)</th>
<th>Inv Gp 2 (n=213)</th>
<th>Comp Gp (n=296)</th>
<th>Overall (n=830)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 mins</td>
<td>74 (23.3)</td>
<td>62 (29.5)</td>
<td>70 (23.7)</td>
<td>206 (25.1)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>95 (30.0)</td>
<td>58 (27.6)</td>
<td>88 (29.8)</td>
<td>241 (29.3)</td>
</tr>
<tr>
<td>&gt;5 mins &lt; 10 mins</td>
<td>85 (28.8)</td>
<td>49 (23.3)</td>
<td>73 (24.7)</td>
<td>207 (25.2)</td>
</tr>
<tr>
<td>&gt; 10 mins</td>
<td>43 (13.6)</td>
<td>28 (3.4)</td>
<td>35 (11.9)</td>
<td>106 (12.9)</td>
</tr>
<tr>
<td>Not talked or DR*</td>
<td>20 (6.3)</td>
<td>13 (13.3)</td>
<td>29 (9.8)</td>
<td>62 (7.5)</td>
</tr>
</tbody>
</table>

*Missing*                                                      | 4                | 3                 | 1                |

*Didn't remember*

None of the demographic variables had a significant effect on this dependent variable, neither were there any significant interactions. Nominal logistic regression modelling of duration of last discussion indicated slight differences between study conditions. There were signs of a possible difference between Intervention-group 2 and the Comparison Group [OR = 2.159, 95% CI = (1.009, 4.620)] for one of the response categories (less than five minutes) but it was only marginally significant (Table 49). Compared to the Comparison Group, parents in Intervention-group 2 had increased odds of being in the ‘Talking for less than five minutes’ category versus ‘Never having talked (or not remembering)’.
Table 49: Duration of last parent-child communication about smoking cigarettes:
Nominal logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable: Duratio of last parent-child talk about smoking cigarettes</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>&lt; 5 mins</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.602</td>
<td>0.394</td>
<td>2.328</td>
<td>1</td>
<td>0.127</td>
<td>8.063</td>
<td>(3.431, 18.947)</td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 mins</td>
<td>2.087</td>
<td>0.436</td>
<td>22.926</td>
<td>1</td>
<td>0.000</td>
<td>8.063</td>
<td>(3.431, 18.947)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>1.905</td>
<td>0.480</td>
<td>15.784</td>
<td>1</td>
<td>0.000</td>
<td>6.721</td>
<td>(2.626, 17.205)</td>
</tr>
<tr>
<td>&gt; 5 - &lt; 10 mins</td>
<td>0.721</td>
<td>0.533</td>
<td>1.829</td>
<td>1</td>
<td>0.176</td>
<td>2.057</td>
<td>(0.723, 5.847)</td>
</tr>
<tr>
<td>&gt; 10 mins</td>
<td>0.928</td>
<td>0.649</td>
<td>2.044</td>
<td>1</td>
<td>0.153</td>
<td>2.530</td>
<td>(0.709, 9.035)</td>
</tr>
<tr>
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<td><strong>About 5 mins</strong></td>
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<td>0.000</td>
<td>6.856</td>
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<td>1</td>
<td>0.000</td>
<td>5.847</td>
<td>(1.792, 19.076)</td>
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<td>8.565</td>
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<td>0.453</td>
<td>2.390</td>
<td>1</td>
<td>0.122</td>
<td>2.014</td>
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<td>0.000</td>
<td>5.230</td>
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<td>0.477</td>
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<td>1</td>
<td>0.000</td>
<td>8.019</td>
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<td>0.584</td>
<td>12.450</td>
<td>1</td>
<td>0.000</td>
<td>7.862</td>
<td>(2.501, 24.715)</td>
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<td>1.729</td>
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<td>0.392</td>
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<td>0.316</td>
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<tr>
<td>&lt; 5 mins</td>
<td>-0.183</td>
<td>0.574</td>
<td>0.102</td>
<td>1</td>
<td>0.750</td>
<td>1.113</td>
<td>(0.333, 3.720)</td>
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<tr>
<td>About 5 mins</td>
<td>1.017</td>
<td>0.616</td>
<td>0.030</td>
<td>1</td>
<td>0.862</td>
<td>1.113</td>
<td>(0.333, 3.720)</td>
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<td>0.538</td>
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<td>0.009</td>
<td>4.074</td>
<td>(1.420, 11.684)</td>
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<td>0.602</td>
<td>24.545</td>
<td>1</td>
<td>0.000</td>
<td>19.774</td>
<td>(6.072, 64.396)</td>
</tr>
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<td></td>
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<td>0.390</td>
<td>2.209</td>
<td>1</td>
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<td>1.786</td>
<td>(0.831, 3.837)</td>
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<td>0.402</td>
<td>1.302</td>
<td>1</td>
<td>0.254</td>
<td>1.656</td>
<td>(0.696, 3.940)</td>
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</table>

^ Didn't remember
^ Estimate
Deviance=34,106, df=32, p=0.211
Reference category for dependent variable = Never talked/didn't remember

As shown in Table 50, a pattern emerged from the dose-response analyses. Parents in the middle and highest intervention-dose categories were significantly more likely than parents in the lowest intervention-dose category, to report their most recent talk about smoking cigarettes with their Year 6 children had been of a longer duration. Further, the odds ratios tended to increase as the length of time increased. The results in Table 50 also indicate an absence of significant differences between parents in the middle intervention-dose category and those in the highest.

196
Table 50: Duration of last parent-child communication regarding smoking cigarettes with Intervention-group parents only: Nominal logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: Duration of last parent-child talk about smoking cigarettes</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
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<td>&lt; 5 mins</td>
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</tr>
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<td>0.704</td>
<td>0.197</td>
<td>1</td>
<td>0.657</td>
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<tr>
<td>Baseline</td>
<td>2.469</td>
<td>0.690</td>
<td>12.786</td>
<td>1</td>
<td>0.000</td>
<td>11.810</td>
<td>(3.052, 45.705)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>2.707</td>
<td>0.837</td>
<td>10.456</td>
<td>1</td>
<td>0.001</td>
<td>14.980</td>
<td>(2.904, 77.274)</td>
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<tr>
<td>&gt;5 - &lt;10 mins</td>
<td>0.843</td>
<td>0.861</td>
<td>0.958</td>
<td>1</td>
<td>0.328</td>
<td>2.322</td>
<td>(0.430, 12.552)</td>
</tr>
<tr>
<td>&gt;10 mins</td>
<td>1.457</td>
<td>1.005</td>
<td>3.102</td>
<td>1</td>
<td>0.147</td>
<td>4.292</td>
<td>(0.599, 30.765)</td>
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<td>Inv. dose</td>
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<tr>
<td>Highest dose</td>
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<td>0.550</td>
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<td>0.327</td>
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<tr>
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<td>3.351</td>
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<td>2.964</td>
<td>(0.926, 9.486)</td>
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<tr>
<td>Mid v highestc</td>
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<td>0.639</td>
<td>0.733</td>
<td>1</td>
<td>0.392</td>
<td>1.729</td>
<td>(0.494, 6.051)</td>
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<td>0.484</td>
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<td>0.761</td>
<td>5.936</td>
<td>1</td>
<td>0.015</td>
<td>6.388</td>
<td>(1.437, 28.396)</td>
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<td>3.577</td>
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<td>0.059</td>
<td>5.847</td>
<td>(0.938, 36.448)</td>
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<td>Inv. dose</td>
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<tr>
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<td>0.291</td>
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<tr>
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<td>0.876</td>
<td>1.110</td>
<td>(0.299, 4.128)</td>
</tr>
</tbody>
</table>

* Did not remember   * Estimate
1Model repeated with dose variable re-coded so that highest dose was the reference group. (Only summary data presented.)
Deviance=26.195, df=32, p=0.755
Reference category for dependent variable: Never talked/didn’t remember
Level of parent-child engagement when talking about smoking cigarettes

As shown in Table 51, at the first follow-up most parents (range=72.8%-80.7%) in each study condition reported high levels of engagement during discussions with their child about smoking cigarettes.

Table 51: Level of parent-child engagement regarding smoking-related communication as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Dependent variable: Parent-child engagement</th>
<th>Condition</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intv Gp 1 (n=321)</td>
<td>Intv Gp 2 (n=213)</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>High engagement</td>
<td>256 (80.7)</td>
<td>163 (78.0)</td>
</tr>
<tr>
<td>Low engagement</td>
<td>50 (15.8)</td>
<td>35 (16.7)</td>
</tr>
<tr>
<td>No engagement</td>
<td>11 (3.5)</td>
<td>11 (5.3)</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

As shown in Table 52, logistic regression modelling of this variable found significant differences in the responses of parents in Intervention-group 1 and those in the Comparison Group for one of the response categories. Parents in Intervention-group 1 were 2.6 times more likely than Comparison-group parents to report high engagement when talking with their Year 6 child about smoking cigarettes [OR=2.587, 95% CI=(1.178, 5.682)].

Parent gender was identified as a significant predictor of this dependent variable (Table 52). Female parents were 2.7 times more likely than male parents to have reported high engagement versus no engagement [OR= 2.702, 95% CI=(1.412, 5.171)], and 3.1 times more likely than males to have reported low versus no engagement [OR= 3.088, 95% CI=(1.490, 6.400)].
Table 52: Level of parent-child engagement regarding smoking-related communication: Nominal logistic regression model estimates

<table>
<thead>
<tr>
<th>Variable:</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent-child engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.118</td>
<td>0.433</td>
<td>0.074</td>
<td>1</td>
<td>0.786</td>
<td>(3.767, 19.052)</td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>2.137</td>
<td>0.414</td>
<td>26.701</td>
<td>1</td>
<td>0.000</td>
<td>4.511 (1.739, 11.702)</td>
</tr>
<tr>
<td>Low</td>
<td>1.507</td>
<td>0.486</td>
<td>9.599</td>
<td>1</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.551</td>
<td>0.401</td>
<td>5.609</td>
<td>1</td>
<td>0.018</td>
<td>2.587 (1.178, 5.682)</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.419</td>
<td>0.395</td>
<td>1.127</td>
<td>1</td>
<td>0.288</td>
<td>1.520 (0.702, 3.294)</td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.994</td>
<td>0.331</td>
<td>9.014</td>
<td>1</td>
<td>0.003</td>
<td>2.702 (1.412, 5.171)</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.306</td>
<td>0.466</td>
<td>0.432</td>
<td>1</td>
<td>0.511</td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>0.500</td>
<td>0.442</td>
<td>1.277</td>
<td>1</td>
<td>0.258</td>
<td>1.648 (0.693, 3.921)</td>
</tr>
<tr>
<td>Low</td>
<td>0.589</td>
<td>0.510</td>
<td>3.759</td>
<td>1</td>
<td>0.053</td>
<td>2.689 (0.989, 7.311)</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.574</td>
<td>0.432</td>
<td>1.763</td>
<td>1</td>
<td>0.184</td>
<td>1.775 (0.761, 4.139)</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.138</td>
<td>0.433</td>
<td>0.102</td>
<td>1</td>
<td>0.749</td>
<td>1.148 (0.492, 2.683)</td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.128</td>
<td>0.372</td>
<td>9.196</td>
<td>1</td>
<td>0.002</td>
<td>3.088 (1.490, 6.400)</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

* Estimate
Deviance=14.401, df=24, p=0.937
Reference category for dependent variable: No engagement

Ordinal logistic regression was utilised to determine whether dose-response effects were present for this dependent variable and the results in Table 53 show intervention dose was a significant predictor. When compared to parents in the lowest intervention-dose category, those in the highest- (Wald=13.820, df=1, p=0.000) and middle- (Wald=9.898, df=1, p=0.002) dose categories were more likely to have reported higher rather than lower levels of engagement. (The negative values of the parameter estimates indicate increased likelihood of being in the 'High' and 'Low' categories of engagement, since these occur first, than in the 'No engagement' category.)

Nominal logistic regression was used to investigate the magnitude of the above differences (Table 53). Parents in the highest-dose category were 3.3 times more likely, than parents in the lowest category, to have reported high versus no engagement when talking with their Year 6 child about smoking cigarettes [OR = 3.323, 95% CI = (1.110, 9.950)]. Likewise, parents in the middle intervention-dose category were 4.7 times more likely to report high versus no engagement than parents in the lowest-dose category [OR = 4.674, 95% CI = (1.354, 16.133)]. There were no significant differences between parents in the middle and highest...
intervention-dose categories with regard to parent-child engagement during discussions about smoking cigarettes.

Table 53: Level of parent-child engagement regarding smoking-related communication with Intervention-group parents only: Ordinal logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Variable:</th>
<th>Eq.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent-child engagement:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threshold values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-0.595</td>
<td>0.405</td>
<td>2.159</td>
<td>1</td>
<td>0.142</td>
</tr>
<tr>
<td>2</td>
<td>1.262</td>
<td>0.432</td>
<td>8.536</td>
<td>1</td>
<td>0.003</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>-1.639</td>
<td>0.395</td>
<td>17.211</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Low</td>
<td>-0.773</td>
<td>0.417</td>
<td>3.432</td>
<td>1</td>
<td>0.064</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>-1.114</td>
<td>0.300</td>
<td>13.820</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Middle dose</td>
<td>-0.930</td>
<td>0.296</td>
<td>9.898</td>
<td>1</td>
<td>0.002</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>0.184</td>
<td>0.300</td>
<td>0.377</td>
<td>1</td>
<td>0.539</td>
</tr>
</tbody>
</table>

* Estimate
|a| model repeated with dose variable re-coded so that highest dose was the reference group. Only summary data presented. Test of Parallel Lines: χ²=2.437, df=4, p=0.655 Link function: Logit Deviance=8.661, df=12, p=0.732

Specific tobacco topics discussed with Year 6 child in previous two weeks

At the first follow-up, parents were asked if they had talked with their Year 6 child about four specified smoking-related topics in the two weeks prior to data collection. As indicated in Table 54, the percentage of parents who reported talking about none of the specified topics ranged from 53.3% (n=122) in the Comparison to 42.7% in Intervention-group 1 (n=111). None of the parent demographic variables had a significant effect on this dependent variable.

Table 54: Number of specified tobacco topics talked about with Year 6 child in previous two weeks as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition</th>
<th>Condition</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iniv Gp 1</td>
<td>Iniv Gp 2</td>
<td>Comp Gp</td>
<td>Overall</td>
</tr>
<tr>
<td>(n=321)</td>
<td>(n=213)</td>
<td>(n=296)</td>
<td>(n=830)</td>
</tr>
<tr>
<td># of essential tobacco topics talked about in last 2 weeks (max=4)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>0 topics</td>
<td>111 (42.7)</td>
<td>75 (47.5)</td>
<td>122 (53.3)</td>
</tr>
<tr>
<td>1 topic</td>
<td>35 (13.5)</td>
<td>16 (10.1)</td>
<td>27 (11.8)</td>
</tr>
<tr>
<td>2 topics</td>
<td>24 (9.2)</td>
<td>15 (9.5)</td>
<td>20 (8.7)</td>
</tr>
<tr>
<td>3 topics</td>
<td>41 (15.8)</td>
<td>19 (12.0)</td>
<td>28 (12.2)</td>
</tr>
<tr>
<td>4 topics</td>
<td>49 (18.8)</td>
<td>33 (20.9)</td>
<td>32 (14.4)</td>
</tr>
<tr>
<td>Missing</td>
<td>61</td>
<td>55</td>
<td>67</td>
</tr>
</tbody>
</table>
Ordinal logistic regression modelling of this dependent variable revealed significant differences between parents in Intervention-group 1 and those in the Comparison Group (Wald=5.179, df=1, p=0.023). Parents in Intervention-group 1 reported talking about more of the specified smoking-related topics than did parents in the Comparison Group (Table 55). This is evidenced by the positive parameter estimate, that indicates parents in Intervention-group 1 were more likely to be in the higher number of topic categories rather than the lower categories.

The magnitude of this difference was investigated by re-coding parents’ responses as either ‘Talked about at least one topic’ or ‘Talked about no topics’. Binary logistic regression was used to obtain an odds ratio. Parents in Intervention-group 1 were 1.5 times more likely than Comparison-group parents, to have talked about at least one of the specified smoking-related topics with their Year 6 child at the first follow-up [OR=1.5, 95% CI=(1.06, 2.25)].

Table 55: Number of specified tobacco topics talked about with Year 6 child in previous two weeks: Ordinal logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable: # tobacco topics</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>-1.226</td>
<td>0.315</td>
<td>15.171</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>1</td>
<td>-0.688</td>
<td>0.313</td>
<td>4.845</td>
<td>1</td>
<td>0.028</td>
</tr>
<tr>
<td>2</td>
<td>-0.254</td>
<td>0.311</td>
<td>0.667</td>
<td>1</td>
<td>0.414</td>
</tr>
<tr>
<td>3</td>
<td>0.588</td>
<td>0.312</td>
<td>3.555</td>
<td>1</td>
<td>0.590</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 topics</td>
<td>-1.969</td>
<td>0.321</td>
<td>37.538</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>1 topic</td>
<td>-1.302</td>
<td>0.334</td>
<td>15.203</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>2 topics</td>
<td>-0.0953</td>
<td>0.356</td>
<td>7.158</td>
<td>1</td>
<td>0.007</td>
</tr>
<tr>
<td>3 topics</td>
<td>-0.656</td>
<td>0.337</td>
<td>3.793</td>
<td>1</td>
<td>0.051</td>
</tr>
<tr>
<td>4 topics</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.398</td>
<td>0.175</td>
<td>5.179</td>
<td>1</td>
<td>0.023</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.318</td>
<td>0.201</td>
<td>2.497</td>
<td>1</td>
<td>0.114</td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* Estimate
Test of Parallel Lines: $\chi^2=16.867$, df=18, p=0.532
Link function: Logit
Deviance: $\chi^2=46.801$, df=50, p=0.603

The intervention dose was a significant predictor of the number of smoking-related topics parents had discussed with their Year 6 child in the previous two weeks (Table 56). Ordinal regression revealed significant differences between parents in the highest (Wald=6.269, df=1, p=0.012) and middle (Wald=7.222, df=1, p=0.007) intervention-dose categories when compared to the lowest-dose category. There
were, however, no differences between parents in the middle- and highest-dose categories (Wald=0.042, df=1, p=0.837).

The magnitude of the differences was investigated by re-coding parents' responses as either 'Talked about at least one tobacco topic' or 'Talked about no topics' and using binary logistic regression to obtain the odds ratios. Parents in the highest and middle intervention-dose categories were more likely, than those reporting the lowest dose, to have talked about at least one versus none of the specified tobacco-related topics [OR=1.860, 95% CI=(1.095, 3.158); OR=2.232, 95% CI=(1.306, 3.813) respectively].

Table 56: Number of specified tobacco topics talked about with Year 6 child in previous two weeks with Intervention-group parents only: Ordinal logistic regression model for dose-response analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th># Tobacco topics</th>
<th>Est.</th>
<th>SE.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold values</strong></td>
<td>0</td>
<td>-0.989</td>
<td>0.464</td>
<td>4.539</td>
<td>1</td>
<td>0.033</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>-0.408</td>
<td>0.426</td>
<td>0.778</td>
<td>1</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.021</td>
<td>0.426</td>
<td>0.000</td>
<td>1</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.878</td>
<td>0.462</td>
<td>3.606</td>
<td>1</td>
<td>0.058</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.021</td>
<td>0.426</td>
<td>0.000</td>
<td>1</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td>0 topics</td>
<td>-1.927</td>
<td>0.451</td>
<td>20.026</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>1 topic</td>
<td>-1.081</td>
<td>0.452</td>
<td>5.706</td>
<td>1</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>2 topics</td>
<td>-0.798</td>
<td>0.475</td>
<td>2.816</td>
<td>1</td>
<td>0.093</td>
</tr>
<tr>
<td></td>
<td>3 topics</td>
<td>-0.759</td>
<td>0.456</td>
<td>2.769</td>
<td>1</td>
<td>0.096</td>
</tr>
<tr>
<td></td>
<td>4 topics</td>
<td>0.021</td>
<td>0.426</td>
<td>0.000</td>
<td>1</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Inv. Dose</strong></td>
<td>Highest dose</td>
<td>0.681</td>
<td>0.272</td>
<td>6.269</td>
<td>1</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>Middle dose</td>
<td>0.727</td>
<td>0.271</td>
<td>7.222</td>
<td>1</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>Lowest dose</td>
<td>0.021</td>
<td>0.426</td>
<td>0.000</td>
<td>1</td>
<td>1.000</td>
</tr>
<tr>
<td>Mid v highest</td>
<td>-0.046</td>
<td>0.223</td>
<td>0.042</td>
<td>1</td>
<td>0.837</td>
<td></td>
</tr>
</tbody>
</table>

*Estimate

* Dose variable re-coded so that highest dose was the reference group. Only summary data presented.

Test of Parallel Lines: $\chi^2=5.610, df=18, p=0.998$

Deviance: $\chi^2=57.325, df=50, p=0.222$

Link function: Logit

**Second Follow-up**

Data collected at the second follow-up (Table 57) indicated non-significant differences between study conditions ($\chi^2=10.553, df=8, p=0.228$) with regard to the number of smoking-related topics parents had discussed with their Year 6 child in the previous two months. (Apart from identification data, this was the only question asked at the second follow-up.) The proportion of parents who had talked about
none of the specified topics was low and ranged from 9% (n=7) in Intervention-group 1 to 15% (n=19) in the Comparison Group.

Table 57: Number of specified tobacco topics talked about with Year 6 child in previous two months as reported by parents at second follow-up: Cross tabulation

| Dependent variable: # of essential tobacco topics talked about with Yr 6 child in last 2 months (max=4) | Condition | | | |
|---|---|---|---|
| | Inv Gp 1 (n=79) | Inv Gp 2 (n=87) | Comp Gp (n=128) |
| | n | (%) | n | (%) | n | (%) |
| 0 topics | 7(9.1) | 11(12.9) | 19(15.0) | 10.553 (8) | 0.228 |
| 1 topic | 8(10.4) | 9(10.6) | 23(18.1) |
| 2 topics | 9(11.7) | 14(16.6) | 18(14.2) |
| 3 topics | 28(36.3) | 23(27.0) | 42(33.1) |
| 4 topics | 25(32.5) | 28(32.9) | 25(19.6) |

| Missing | 2 | 2 | 1 |

Section Summary

Logistic regression modelling indicated statistically significant differences between study conditions for all five tobacco-related parent-child dependent communication variables.

Ever talked about smoking cigarettes with Year 6 child

Parents in Intervention-group 1 were almost twice as likely as those in the Comparison Group to have ever talked to their Year 6 child about smoking cigarettes. In addition, parents who reported receiving the highest dose of intervention were 3.8 times more likely than the lowest-dose parents, to have talked about smoking cigarettes with their child. Likewise, parents who reported a middle dose of the intervention were 3.3 times more likely than parents who received the lowest intervention dose, to have ever talked about smoking cigarettes with their child.

Recency of last parent-child discussion about smoking cigarettes

There were significant differences between study conditions with regard to the reported recency of the last parent-child discussion about cigarette smoking. Compared to those in the Comparison Group, parents in Intervention-group 1 were
2.3 times more likely to have reported talking with their Year 6 child about smoking cigarettes in the previous two months versus never having talked or not remembering. There were also possibly a similar differences between Intervention-group 2 and the Comparison Group but it was not significant.

Dose-response effects were evident for the recency of the last parent-child discussion about smoking cigarettes. Compared to those in the lowest-dose category, parents in the highest-dose category were four times more likely to have talked with their Year 6 children, about smoking cigarettes, in the previous two months. Likewise, parents who were in the middle-dose category were 3.6 times more likely than parents in the lowest intervention-dose category, to have done so in the previous two months.

*Duration of last parent-child discussion about smoking cigarettes*

With regard to the duration of the most recent parent-child discussion about smoking cigarettes, there were signs of a possible difference between Intervention-group 2 and the Comparison Group. Parents in Intervention-group 2 were 2.2 times more likely to be in the category ‘Less than five minutes’ (than the category ‘Never/Didn’t remember’) than those in the Comparison Group. That is, they reported speaking with their child (for a short duration) more often than Comparison-group parents reported speaking with their child.

A pattern emerged from the dose-response analyses of the duration of the most recent parent-child discussion about smoking cigarettes. Parents in the middle and highest intervention-dose categories were significantly more likely than parents in the lowest intervention-dose category, to report their most recent discussion about smoking cigarettes with their Year 6 children had been of a longer duration. Further, the odds ratios tended to increase as the length of time increased.

*Extent of engagement during parent-child discussions about smoking cigarettes*

Compared to parents in the Comparison Group, those in Intervention-group 1 were 2.6 times more likely to report high engagement when talking with their Year 6 child about smoking cigarettes. In addition, female parents were 2.7 times more likely than male parents to have reported high engagement versus no engagement, and 3.1 times more likely than males to have reported low versus no engagement.
Intervention dose was a significant predictor of the level of parent-child engagement during discussions about smoking cigarettes. When compared to parents in the lowest intervention-dose category, those in the highest and middle intervention-dose categories were more likely to have reported higher rather than lower levels of engagement. Compared to those in the lowest-dose category, parents in the highest-dose category were 3.3 times more likely to have reported high versus no parent-child engagement during discussions about smoking cigarettes. Likewise, when compared to those in the lowest-dose category, parents in the middle intervention-dose category were 4.7 times more likely to report high versus no levels of parent-child engagement.

*Number of essential tobacco topics discussed*

Finally, with regard to parent-child communication about smoking cigarettes, parents were asked if they had talked with their Year 6 child about four specified smoking-related topics in the two weeks prior to data collection. Parents in Intervention-group 1 reported talking about more of the specified smoking-related topics than did parents in the Comparison Group. Specifically, compared to those in the Comparison Group, parents in Intervention-group 1 were 1.5 times more likely to have talked about at least one versus none of the specified smoking-related topics with their Year 6 child at the first follow-up. In addition, parents in the highest and middle dose categories were more likely to have talked about more topics than parents in the lowest-dose category.

There were no differences between the middle and highest intervention-dose categories for any of the tobacco-related dependent variables. This suggested the highest dose did not appear to be necessary to obtain an effect for the five tobacco-related dependent communication variables.

Overall, for all parent-child tobacco-related variables, the Intervention Groups had higher odds of more desirable communication outcomes (i.e., more recent, longer duration, higher engagement and discussed more of the specified content) than the Comparison Group. Thus, there appeared to be a consistent trend towards more enhanced communication in the Intervention Groups. Many of the differences, however, were not statistically significant, so although overall the intervention
appeared to have impacted on parent-child communication, the impact was only significant in particular instances and in particular for Intervention-group 1.

Data related to how many of the specified tobacco-related topics the study sample reported discussing with their Year 6 children in the two months prior to the second follow-up indicated the proportion of parents who had talked about none of the specified topics was low. The percentages ranged from nine per cent in Intervention-group 1 to 15% in the Comparison Group but there were no significant differences between the study conditions at the second follow-up with regard to this variable.

Research Objective 4: Assess the impact of the intervention on the nature of parent-child alcohol-related communication (ie, ever talked, recency, duration, engagement, specific topics) as reported by parents

Ever talked about drinking alcohol with Year 6 child

As shown in Table 58, at the first follow-up a greater proportion of parents in both Intervention-group 1 (89.8% n=286) and Two (90.4% n=189), than in the Comparison Group (81.3% n=239), reported ever having talked with their Year 6 child about drinking alcohol.

Table 58: Ever talked about drinking alcohol with Year 6 child as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Ever talked about drinking alcohol</th>
<th>Condition</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inv Gp 1</td>
<td>Inv Gp 2</td>
</tr>
<tr>
<td>[n (%)]</td>
<td>[n (%)]</td>
<td>[n (%)]</td>
</tr>
<tr>
<td>Never or DR*</td>
<td>32 (10.1)</td>
<td>20 (9.6)</td>
</tr>
<tr>
<td>Yes</td>
<td>286 (89.9)</td>
<td>189 (90.4)</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*Didn’t remember

When scores on the dependent variable at baseline were controlled, the differences between Intervention-group 1 and Intervention-group 2 and the Comparison Group were significant (Table 59). The odds of parents in Intervention-group 1 having ever talked with their Year 6 child about drinking alcohol, were almost three times higher
than for Comparison Group [OR = 2.898, 95% CI = (1.711, 4.908)]. Likewise, parents in Intervention-group 2 were more than 2.5 times as likely as those in the Comparison Group to have ever talked to their Year 6 child about drinking alcohol [OR = 2.577, 95% CI = (1.428, 4.651)].

Parents’ occupation was a significant predictor of this dependent variable. Parents who reported a main occupation that was classified as non-professional\(^{16}\), were significantly less likely to have ever talked with their Year 6 child about drinking alcohol, than parents in other occupational-group classifications. There were no significant differences between other occupational-group classifications.

Table 59: Ever talked with Year 6 child about drinking alcohol: Binary logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable: Ever talked about drinking alcohol</th>
<th>Est.(^a)</th>
<th>SE</th>
<th>Wald, df</th>
<th>Sig.</th>
<th>OR</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.619</td>
<td>0.220</td>
<td>54.214</td>
<td>1</td>
<td>0.000</td>
<td>2.028</td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never or DR(^a)</td>
<td>-1.481</td>
<td>0.264</td>
<td>31.547</td>
<td>1</td>
<td>0.000</td>
<td>0.227</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. 1</td>
<td>1.064</td>
<td>0.269</td>
<td>15.658</td>
<td>1</td>
<td>0.000</td>
<td>2.898</td>
</tr>
<tr>
<td>Inv. 2</td>
<td>0.947</td>
<td>0.301</td>
<td>9.876</td>
<td>1</td>
<td>0.002</td>
<td>2.577</td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home duties</td>
<td>0.827</td>
<td>0.336</td>
<td>6.063</td>
<td>1</td>
<td>0.014</td>
<td>2.286</td>
</tr>
<tr>
<td>Other</td>
<td>1.179</td>
<td>0.408</td>
<td>8.359</td>
<td>1</td>
<td>0.004</td>
<td>3.252</td>
</tr>
<tr>
<td>Prof's</td>
<td>1.031</td>
<td>0.358</td>
<td>8.290</td>
<td>1</td>
<td>0.004</td>
<td>2.803</td>
</tr>
<tr>
<td>Non-prof's</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Didn't remember
\(^a\) Estimate

Hosmer and Lemeshow \(\chi^2\) statistic = 15.126, df=8, p=0.057
Reference category for dependent variable: Never or didn’t remember

As shown in Table 60, the responses of parents in the highest and middle intervention-dose categories were significantly different to parents in the lowest-dose category. They were more than three times more likely to have ever talked with their Year 6 children than parents in the lowest dose group [OR=3.577, 95% CI=(1.490, 8.588) and OR=3.109, 95% CI=(1.325, 7.294) respectively].

Occupation was found to be a predictor of whether parents had ever talked to their Year 6 child about drinking alcohol. Compared to non-professional parents, parents who reported a main occupation of home duties or professional, were, respectively 2.9 and 3.8 times more likely to have ever talked with their Year 6 child about
drinking alcohol [OR=2.923, 95% CI=(1.085, 7.873) and OR=3.830, 95% CI=(1.326, 11.060)].

Table 60: Ever talked about drinking alcohol with Intervention-group parents only: Binary logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Ever talked about drinking alcohol</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>OR</th>
<th>95% CI.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.738</td>
<td>0.481</td>
<td>2.355</td>
<td>1</td>
<td>0.125</td>
<td></td>
<td>2.092</td>
</tr>
<tr>
<td>Baseline</td>
<td>-0.756</td>
<td>0.432</td>
<td>3.063</td>
<td>1</td>
<td>0.080</td>
<td></td>
<td>0.469 (0.201, 1.095)</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv dose</td>
<td>Highest dose</td>
<td>1.275</td>
<td>0.447</td>
<td>8.136</td>
<td>1</td>
<td>0.004</td>
<td>3.577 (1.490, 8.588)</td>
</tr>
<tr>
<td></td>
<td>Middle dose</td>
<td>1.134</td>
<td>0.435</td>
<td>6.798</td>
<td>1</td>
<td>0.009</td>
<td>3.109 (1.325, 7.294)</td>
</tr>
<tr>
<td></td>
<td>Lowest dose</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>1.073</td>
<td>0.505</td>
<td>0.086</td>
<td>1</td>
<td>0.769</td>
<td>0.869 (0.341, 2.218)</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td>Home duties</td>
<td>1.124</td>
<td>0.630</td>
<td>3.184</td>
<td>1</td>
<td>0.074</td>
<td>3.077 (0.895, 10.575)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1.343</td>
<td>0.541</td>
<td>6.158</td>
<td>1</td>
<td>0.013</td>
<td>3.830 (1.326, 11.060)</td>
</tr>
<tr>
<td></td>
<td>Prof's</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-prof's</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* / Did not remember
* / Estimate
* / Model repeated with dose variable re-coded so that highest dose was the reference group. (Only summary data presented.)
* / Hosmer and Lemeshow x² statistic = 6.860, df=7, p=0.444
* / Reference category for dependent variable: Never or didn’t remember

Recency of last parent-child discussion about drinking alcohol

A greater proportion of parents in the Comparison Group (18.6% n=55) compared to those in Intervention-group 1 (10.1% n=32) and Two (9.6%), reported never having talked or not remembering when they had talked about alcohol with their Year 6 children (Table 61).

Table 61: Recency of last parent-child discussion about drinking alcohol as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Recency of last parent-child talk about drinking alcohol</th>
<th>Inv Gp 1 (n=321)</th>
<th>Inv Gp 2 (n=213)</th>
<th>Comp Gp (n=286)</th>
<th>Overall (n=820)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 months ago</td>
<td>186 (58.5)</td>
<td>129 (61.7)</td>
<td>123 (41.7)</td>
<td>438 (53.3)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>75 (23.6)</td>
<td>43 (20.6)</td>
<td>76 (25.8)</td>
<td>194 (23.6)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>25 (7.9)</td>
<td>17 (8.1)</td>
<td>41 (13.9)</td>
<td>83 (10.1)</td>
</tr>
<tr>
<td>Never or DR</td>
<td>32 (10.1)</td>
<td>20 (9.6)</td>
<td>55 (18.6)</td>
<td>107 (13.0)</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>4</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

The results of a nominal regression model on recency of the last parent-child discussion about drinking alcohol are presented in Table 62. Significant differences
were evident between Intervention-group 1 and the Comparison Group. Parents in Intervention-group 1 were three times more likely than parents in the Comparison Group to have talked about drinking alcohol with their Year 6 child in the last two months [OR=3.164, 95% CI=(1.864; 5.371)]. These parents were also twice as likely, as parents in the Comparison Group, to have talked about drinking alcohol with their Year 6 child in the last three to four months [OR=2.102, 95% CI=(1.195; 3.698)]. Likewise, parents in Intervention-group 2 were three times more likely, than parents in the Comparison Group, to have talked about drinking alcohol with their Year 6 child in the last two months [OR=3.013, 95% CI = (1.649; 5.506)].

Table 62: Recency of last parent-child discussion regarding drinking alcohol: Nominal logistic regression model estimates

<table>
<thead>
<tr>
<th>Dependent variable: Recency of last parent-child discussion about drinking alcohol</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.502</td>
<td>0.276</td>
<td>3.302</td>
<td>1</td>
<td>0.069</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>2.337</td>
<td>0.316</td>
<td>54.670</td>
<td>1</td>
<td>0.000</td>
<td>10.352</td>
<td>5.572; 19.236</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.104</td>
<td>0.345</td>
<td>10.239</td>
<td>1</td>
<td>0.001</td>
<td>3.015</td>
<td>1.534; 5.929</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.117</td>
<td>0.355</td>
<td>0.109</td>
<td>1</td>
<td>0.742</td>
<td>0.889</td>
<td>0.443; 1.785</td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>1.152</td>
<td>0.270</td>
<td>18.202</td>
<td>1</td>
<td>0.000</td>
<td>3.164</td>
<td>1.864; 5.371</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>1.103</td>
<td>0.308</td>
<td>12.859</td>
<td>1</td>
<td>0.000</td>
<td>3.013</td>
<td>1.649; 5.506</td>
</tr>
<tr>
<td>Comparison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.232</td>
<td>0.343</td>
<td>12.923</td>
<td>1</td>
<td>0.000</td>
<td>10.600</td>
<td>4.762; 21.254</td>
</tr>
<tr>
<td>Baseline</td>
<td>2.309</td>
<td>0.382</td>
<td>36.595</td>
<td>1</td>
<td>0.000</td>
<td>5.193</td>
<td>2.332; 11.567</td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.743</td>
<td>0.288</td>
<td>6.638</td>
<td>1</td>
<td>0.010</td>
<td>2.102</td>
<td>1.195; 3.698</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.511</td>
<td>0.334</td>
<td>2.341</td>
<td>1</td>
<td>0.126</td>
<td>1.668</td>
<td>0.866; 3.211</td>
</tr>
<tr>
<td>Comparison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5 months ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.839</td>
<td>0.340</td>
<td>6.097</td>
<td>1</td>
<td>0.014</td>
<td>2.244</td>
<td>1.000; 5.036</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.808</td>
<td>0.413</td>
<td>3.837</td>
<td>1</td>
<td>0.050</td>
<td>2.107</td>
<td>1.000; 4.474</td>
</tr>
<tr>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.147</td>
<td>0.342</td>
<td>0.185</td>
<td>1</td>
<td>0.667</td>
<td>1.159</td>
<td>0.593; 2.265</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.177</td>
<td>0.392</td>
<td>0.203</td>
<td>1</td>
<td>0.652</td>
<td>1.193</td>
<td>0.554; 2.572</td>
</tr>
</tbody>
</table>

* Did not remember
* Estimate
Deviance=27.405, df=18, p=0.072
Reference category for dependent variable: Never talked/didn’t remember

Significant dose-response effects were evident for the two most recent response categories, (ie, ‘One-two months ago’ and ‘Three-four months ago’) for this dependent variable (Table 63). Compared to those in the lowest intervention-dose
category, parents in the highest or middle intervention-dose categories were significantly more likely to have talked with their Year 6 child about drinking alcohol, in the previous two months [OR=3.953, 95% CI=(1.700, 9.191); OR=3.141, 95% CI= (1.347, 7.322) respectively]. The results for the three to four month response category followed this pattern although the odds ratios were lower. Differences were not found for the four to five month response category and were not anticipated because this was prior to the implementation of the intervention.

Table 63: Recency of last parent-child discussion about drinking alcohol with Intervention-group parents only: Nominal logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: Recency of last parent-child discussion about drinking alcohol</th>
<th>Estimate</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1-2 months ago</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.345</td>
<td>0.413</td>
<td>0.695</td>
<td>1</td>
<td>0.404</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 months</td>
<td>1.466</td>
<td>0.474</td>
<td>9.569</td>
<td>1</td>
<td>0.002</td>
<td>4.331</td>
<td>(1.711, 10.965)</td>
</tr>
<tr>
<td>3-4 months</td>
<td>0.965</td>
<td>0.562</td>
<td>2.948</td>
<td>1</td>
<td>0.086</td>
<td>2.625</td>
<td>(0.872, 7.897)</td>
</tr>
<tr>
<td>4-5 months</td>
<td>-0.811</td>
<td>0.512</td>
<td>2.504</td>
<td>1</td>
<td>0.114</td>
<td>0.444</td>
<td>(0.163, 1.213)</td>
</tr>
<tr>
<td>Never/DR$^a$</td>
<td>0</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Int. Dose</td>
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<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.374</td>
<td>0.430</td>
<td>10.195</td>
<td>1</td>
<td>0.001</td>
<td>3.953</td>
<td>(1.700, 9.191)</td>
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<tr>
<td>Middle dose</td>
<td>1.144</td>
<td>0.432</td>
<td>7.023</td>
<td>1</td>
<td>0.008</td>
<td>3.141</td>
<td>(1.347, 7.322)</td>
</tr>
<tr>
<td>Lowest dose</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest$^c$</td>
<td>-0.230</td>
<td>0.459</td>
<td>0.252</td>
<td>1</td>
<td>0.616</td>
<td>0.794</td>
<td>(0.323, 1.952)</td>
</tr>
<tr>
<td><strong>3-4 months ago</strong></td>
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</tr>
<tr>
<td>1-2 months</td>
<td>1.640</td>
<td>0.552</td>
<td>8.809</td>
<td>1</td>
<td>0.003</td>
<td>5.153</td>
<td>(1.745, 15.214)</td>
</tr>
<tr>
<td>3-4 months</td>
<td>1.399</td>
<td>0.639</td>
<td>4.798</td>
<td>1</td>
<td>0.028</td>
<td>4.050</td>
<td>(1.159, 14.157)</td>
</tr>
<tr>
<td>4-5 months</td>
<td>0.404</td>
<td>0.576</td>
<td>0.492</td>
<td>1</td>
<td>0.483</td>
<td>1.498</td>
<td>(0.484, 4.632)</td>
</tr>
<tr>
<td>Never/DR$^a$</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Int. Dose</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Highest dose</td>
<td>0.974</td>
<td>0.464</td>
<td>4.399</td>
<td>1</td>
<td>0.036</td>
<td>2.648</td>
<td>(1.006, 6.578)</td>
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<tr>
<td>Middle dose</td>
<td>0.910</td>
<td>0.466</td>
<td>3.814</td>
<td>1</td>
<td>0.051</td>
<td>2.485</td>
<td>(0.997, 6.194)</td>
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<tr>
<td>Lowest dose</td>
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</tr>
<tr>
<td>Mid v highest$^c$</td>
<td>-0.063</td>
<td>0.487</td>
<td>0.017</td>
<td>1</td>
<td>0.896</td>
<td>0.938</td>
<td>(0.361, 2.439)</td>
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<tr>
<td><strong>4-5 months ago</strong></td>
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<tr>
<td>Intercept</td>
<td>-0.542</td>
<td>0.511</td>
<td>0.448</td>
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<td>0.503</td>
<td></td>
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</tr>
<tr>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>1-2 months</td>
<td>-0.138</td>
<td>0.630</td>
<td>0.048</td>
<td>1</td>
<td>0.827</td>
<td>0.871</td>
<td>(0.254, 2.993)</td>
</tr>
<tr>
<td>3-4 months</td>
<td>0.241</td>
<td>0.709</td>
<td>0.116</td>
<td>1</td>
<td>0.734</td>
<td>1.273</td>
<td>(0.317, 5.112)</td>
</tr>
<tr>
<td>4-5 months</td>
<td>-0.148</td>
<td>0.609</td>
<td>0.104</td>
<td>1</td>
<td>0.748</td>
<td>0.863</td>
<td>(0.261, 2.848)</td>
</tr>
<tr>
<td>Never/DR$^a$</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Int. Dose</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.186</td>
<td>0.577</td>
<td>0.104</td>
<td>1</td>
<td>0.748</td>
<td>1.204</td>
<td>(0.388, 3.733)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>0.620</td>
<td>0.542</td>
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<td>1</td>
<td>0.253</td>
<td>1.859</td>
<td>(0.643, 5.379)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
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<td></td>
</tr>
<tr>
<td>Mid v highest$^c$</td>
<td>0.434</td>
<td>0.605</td>
<td>0.516</td>
<td>1</td>
<td>0.473</td>
<td>1.544</td>
<td>(0.472, 5.051)</td>
</tr>
</tbody>
</table>

$^a$Didn't remember  
$^b$Estimate  
$^c$Dose variable re-coded so that highest dose was the reference group. Only summary data presented.

Deviance=29.573, df=18, p=0.042

Reference category for dependent variable: Never talked/didn't remember
Duration of last parent-child discussion about drinking alcohol

At the first follow-up, a greater proportion of parents in the Comparison Group (18\% n=53) than in Intervention-group 1 (9.7\% n=31) or Intervention-group 2 (7.1\% n=15), reported not having talked with their Year 6 children about drinking alcohol or not remembering the duration of the last discussion (Table 64).

Table 64: Duration of last parent-child discussion about drinking alcohol as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Condition</th>
<th>Inv Gp 1 (n=321)</th>
<th>Inv Gp 2 (n=213)</th>
<th>Comp Gp (n=296)</th>
<th>Overall (n=830)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td>n (%)</td>
</tr>
<tr>
<td>&lt; 5 mins</td>
<td>89 (27.9)</td>
<td>68 (32.4)</td>
<td>71 (24.1)</td>
<td>228 (27.7)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>102 (32.0)</td>
<td>57 (27.1)</td>
<td>88 (29.8)</td>
<td>247 (30.0)</td>
</tr>
<tr>
<td>&gt;5 mins &lt; 10 mins</td>
<td>59 (18.5)</td>
<td>44 (21.0)</td>
<td>54 (18.3)</td>
<td>157 (19.0)</td>
</tr>
<tr>
<td>&gt; 10 mins</td>
<td>38 (11.9)</td>
<td>26 (12.4)</td>
<td>29 (9.8)</td>
<td>93 (11.3)</td>
</tr>
<tr>
<td>Not talked or DR*</td>
<td>31 (9.7)</td>
<td>15 (7.1)</td>
<td>53 (18.0)</td>
<td>99 (12.0)</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

*Didn’t remember

As shown in Table 65, for each of the response categories (ie, periods of time) there were differences between the Intervention Groups and the Comparison Group (significant differences in each case). In each instance, the odds ratios were larger than two, indicating that longer discussions were reported in the Intervention Groups compared to the Comparison Group.

In Intervention-group 2, the odds increased as the possible duration of the discussion increased. This indicated not only were parents in Intervention-group 2 more likely than Comparison-group parents to have talked with their Year 6 child about drinking alcohol, they were more likely to have talked for longer periods of time.

Parents in Intervention-group 1 were more likely, than those in the Comparison Group, to be in the five minutes or more categories than in the ‘Never talked or didn’t remember’ category. The largest difference was in the ‘About five minutes’ category.
With regard to demographic variables, one comparison of SES was statistically significant. Parents classified as high SES had reduced odds of talking with their Year 6 child for five to ten minutes versus never talked (or didn’t remember) than parents classified as low SES \((OR=0.344, 95\% \text{ CI}=0.145; 0.814)\). The corresponding odds for the comparison of parents classified as medium SES versus low SES were also reduced, although this comparison was marginally non-significant \((p=0.056)\).

There were no significant differences between the SES groups for any of the other categories of duration of the last parent-child discussion about drinking alcohol as reported by the parents.

With regard to occupation, parents classified as non-professionals were less likely to be in a talking category than parents of other occupational groups. This appeared to be especially so for the ‘One to five minutes’ category.
Table 65: Duration of last parent-child discussion regarding drinking alcohol: Nominal logistic regression model estimates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Duration last talk alcohol</th>
<th>Est.</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>OR</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 mins</td>
<td>Intercept</td>
<td>-2.353</td>
<td>0.510</td>
<td>21.269</td>
<td>1</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>1.838</td>
<td>0.251</td>
<td>27.427</td>
<td>1</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.801</td>
<td>0.416</td>
<td>18.753</td>
<td>1</td>
<td>0.000</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>1.266</td>
<td>0.507</td>
<td>6.235</td>
<td>1</td>
<td>0.013</td>
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<tr>
<td></td>
<td></td>
<td>1.573</td>
<td>0.720</td>
<td>4.769</td>
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<td>0.029</td>
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</tr>
<tr>
<td></td>
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<td>0.000</td>
<td>0.000</td>
<td>1</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Condition</td>
<td>1.076</td>
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<td>10.542</td>
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</tr>
<tr>
<td></td>
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<td>1.084</td>
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</tr>
<tr>
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</tr>
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<td>0.000</td>
<td>1</td>
<td>0.000</td>
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<td></td>
</tr>
<tr>
<td>&gt; 5 mins</td>
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<td>11.663</td>
<td>1</td>
<td>0.001</td>
<td></td>
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</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td>0.874</td>
<td>0.535</td>
<td>2.662</td>
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<td>1.168</td>
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<td>5.716</td>
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<td></td>
<td></td>
<td>0.905</td>
<td>0.462</td>
<td>3.828</td>
<td>1</td>
<td>0.050</td>
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<td>0.000</td>
<td>1</td>
<td>0.000</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.068</td>
<td>0.440</td>
<td>5.902</td>
<td>1</td>
<td>0.015</td>
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</tr>
<tr>
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<td></td>
<td>-0.663</td>
<td>0.347</td>
<td>3.645</td>
<td>1</td>
<td>0.056</td>
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<td>1</td>
<td>0.000</td>
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</tr>
<tr>
<td>&gt; 10 mins</td>
<td>Intercept</td>
<td>-2.339</td>
<td>0.590</td>
<td>15.714</td>
<td>1</td>
<td>0.000</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Baseline</td>
<td>-0.414</td>
<td>0.647</td>
<td>0.409</td>
<td>1</td>
<td>0.522</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>0.791</td>
<td>0.590</td>
<td>1.797</td>
<td>1</td>
<td>0.180</td>
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<td></td>
<td></td>
<td>2.338</td>
<td>0.548</td>
<td>18.194</td>
<td>1</td>
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<td>3.973</td>
<td>0.694</td>
<td>32.745</td>
<td>1</td>
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<td>0.000</td>
<td>1</td>
<td>0.000</td>
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<tr>
<td></td>
<td>Condition</td>
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<td>1</td>
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<td>0.474</td>
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<td>0.408</td>
<td>0.576</td>
<td>0.500</td>
<td>1</td>
<td>0.459</td>
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<td></td>
<td></td>
<td>0.609</td>
<td>0.522</td>
<td>1.771</td>
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<td>0.183</td>
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<td>0.000</td>
<td>1</td>
<td>0.000</td>
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<td></td>
</tr>
<tr>
<td></td>
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<td>-0.487</td>
<td>0.511</td>
<td>0.908</td>
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<td>0.341</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.180</td>
<td>0.392</td>
<td>0.212</td>
<td>1</td>
<td>0.645</td>
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</tr>
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<td></td>
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<td>0.000</td>
<td>0.000</td>
<td>1</td>
<td>0.000</td>
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<td></td>
</tr>
</tbody>
</table>

*Didn't remember  bEstimate  Deviance=548.627, df=544, p=0.436
Reference category for dependent variable: Never talked/didn’t remember

213
The dose-response data for this dependent variable is presented in Table 66. For each response category, parents who were classified as receiving either the highest or middle dose of intervention were consistently more likely than those in the lowest-dose category, to have talked with their Year 6 child (for any duration of time).

Table 66: Duration of last parent-child discussion regarding drinking alcohol with Intervention-group parents only: Nominal logistic regression model estimates for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: Duration last talk with alcohol</th>
<th>Est</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 mins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.586</td>
<td>0.461</td>
<td>1.611</td>
<td>1</td>
<td>0.204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>0.370</td>
<td>0.514</td>
<td>1.239</td>
<td>1</td>
<td>0.267</td>
<td>1.768</td>
<td>(0.646, 4.839)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>0.624</td>
<td>0.614</td>
<td>1.033</td>
<td>1</td>
<td>0.309</td>
<td>1.867</td>
<td>(0.560, 6.219)</td>
</tr>
<tr>
<td>≥5 - &lt;10 mins</td>
<td>-0.061</td>
<td>0.900</td>
<td>0.006</td>
<td>1</td>
<td>0.939</td>
<td>0.941</td>
<td>(0.196, 4.512)</td>
</tr>
<tr>
<td>&gt;10 mins</td>
<td>-1.055</td>
<td>0.829</td>
<td>1.617</td>
<td>1</td>
<td>0.204</td>
<td>0.348</td>
<td>(0.068, 1.770)</td>
</tr>
<tr>
<td>Never/DR</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.392</td>
<td>0.433</td>
<td>0.818</td>
<td>1</td>
<td>0.366</td>
<td>1.479</td>
<td>(0.633, 3.456)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>1.339</td>
<td>0.553</td>
<td>5.857</td>
<td>1</td>
<td>0.016</td>
<td>3.817</td>
<td>(1.290, 11.292)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>0.790</td>
<td>0.537</td>
<td>2.167</td>
<td>1</td>
<td>0.141</td>
<td>2.204</td>
<td>(0.770, 6.314)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.264</td>
<td>0.505</td>
<td>0.272</td>
<td>1</td>
<td>0.602</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>0.284</td>
<td>0.550</td>
<td>0.267</td>
<td>1</td>
<td>0.606</td>
<td>1.328</td>
<td>(0.452, 3.903)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>1.284</td>
<td>0.628</td>
<td>4.176</td>
<td>1</td>
<td>0.041</td>
<td>3.610</td>
<td>(1.054, 12.368)</td>
</tr>
<tr>
<td>≥5 - &lt;10 mins</td>
<td>1.306</td>
<td>0.764</td>
<td>2.920</td>
<td>1</td>
<td>0.087</td>
<td>3.691</td>
<td>(0.825, 16.507)</td>
</tr>
<tr>
<td>&gt;10 mins</td>
<td>0.605</td>
<td>0.724</td>
<td>0.697</td>
<td>1</td>
<td>0.404</td>
<td>1.831</td>
<td>(0.443, 7.567)</td>
</tr>
<tr>
<td>Never/DR</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.220</td>
<td>0.447</td>
<td>7.446</td>
<td>1</td>
<td>0.006</td>
<td>3.389</td>
<td>(1.410, 8.143)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>1.945</td>
<td>0.570</td>
<td>11.620</td>
<td>1</td>
<td>0.001</td>
<td>6.978</td>
<td>(2.284, 21.526)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>0.559</td>
<td>0.529</td>
<td>1.113</td>
<td>1</td>
<td>0.291</td>
<td>1.748</td>
<td>(0.619, 4.935)</td>
</tr>
<tr>
<td>≥5 - &lt;10 mins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.267</td>
<td>0.524</td>
<td>0.261</td>
<td>1</td>
<td>0.610</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>-0.773</td>
<td>0.593</td>
<td>1.699</td>
<td>1</td>
<td>0.192</td>
<td>0.462</td>
<td>(0.144, 1.476)</td>
</tr>
<tr>
<td>About 5 mins</td>
<td>0.178</td>
<td>0.662</td>
<td>0.073</td>
<td>1</td>
<td>0.788</td>
<td>1.195</td>
<td>(0.327, 4.371)</td>
</tr>
<tr>
<td>≥5 - &lt;10 mins</td>
<td>1.598</td>
<td>0.759</td>
<td>4.428</td>
<td>1</td>
<td>0.038</td>
<td>4.941</td>
<td>(1.116, 21.879)</td>
</tr>
<tr>
<td>&gt;10 mins</td>
<td>0.445</td>
<td>0.736</td>
<td>0.365</td>
<td>1</td>
<td>0.546</td>
<td>1.560</td>
<td>(0.369, 6.596)</td>
</tr>
<tr>
<td>Never/DR</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.032</td>
<td>0.495</td>
<td>4.354</td>
<td>1</td>
<td>0.037</td>
<td>2.807</td>
<td>(1.065, 7.399)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>2.187</td>
<td>0.604</td>
<td>13.092</td>
<td>1</td>
<td>0.000</td>
<td>8.905</td>
<td>(2.724, 29.108)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>0.984</td>
<td>0.551</td>
<td>3.193</td>
<td>1</td>
<td>0.074</td>
<td>2.676</td>
<td>(0.909, 7.879)</td>
</tr>
</tbody>
</table>

*Never or didn’t remember

| Estimate |

| 1Dose variable re-coded so highest dose was the reference group. Only summary data presented. Deviance=23.341, df=32, p=0.898
| Reference category for dependent variable: Never talked/didn’t remember
**Level of parent-child engagement when talking about drinking alcohol**

At the first follow-up when compared with parents in the Comparison Group (67.1% n=190), a greater proportion of parents in both Intervention-groups 1 (75.8% n=238) and 2 (77.1% n=158) reported high engagement when talking with their Year 6 children about drinking alcohol (Table 67).

Table 67: Level of parent-child engagement regarding alcohol-related communication as reported by parents at first follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Dependent variable: Parent-child engagement</th>
<th>Condition</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intv Gp 1 (n=321)</td>
<td>Intv Gp 2 (n=213)</td>
</tr>
<tr>
<td>High engagement</td>
<td>238 (75.8)</td>
<td>158 (77.1)</td>
</tr>
<tr>
<td>Low engagement</td>
<td>51 (16.2)</td>
<td>37 (18.0)</td>
</tr>
<tr>
<td>No engagement</td>
<td>25 (8.0)</td>
<td>10 (4.9)</td>
</tr>
</tbody>
</table>

In terms of the high engagement category, nominal logistic regression indicated Intervention-group 2 parents, and possibly Intervention-group 1 parents, were significantly different from those in the Comparison Group (Table 68). Parents in Intervention Groups 1 and 2 were 1.8 and 3.5 times (respectively) more likely than Comparison-group parents, to have reported high engagement versus no engagement with their children [OR=1.808, 95% CI=(1.001; 3.266); OR=3.531, 95% CI=(1.593; 7.828) respectively]. In addition, parents in Intervention-group 2 were 2.7 times more likely than Comparison-group parents to report low engagement versus no engagement [OR=2.660, 95% CI = (1.115; 6.348)]. (Table 68)
Parents in the highest and middle intervention-dose categories had a significantly higher likelihood of being in the high rather than the no-engagement category (Table 69). That is, parents in the highest intervention-dose group, were 4.1 times more likely than parents in the lowest group to engage more with their children when discussing drinking alcohol [OR=4.103, 95% CI= (1.467, 11.478)]. Parents in the middle intervention-dose category were also more likely than those in the lowest-dose category to report high parent-child engagement when discussing drinking alcohol with their children [OR=3.851, 95% CI = (1365, 10.861)]. There were no significant differences between parents in the middle and highest intervention-dose categories for either of the ‘Engagement’ response categories. There were also no differences between the intervention-dose categories when comparing low levels of engagement with no engagement.
Table 69: Level of parent-child engagement regarding alcohol-related communication with Intervention-group parents only: Nominal logistic regression model for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: Engagement alcohol</th>
<th>Estimate (Est)</th>
<th>Standard Error (SE)</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>Odds Ratio (OR)</th>
<th>95% Confidence Interval (95% CI)</th>
</tr>
</thead>
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<td>High Eng</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>0.257</td>
<td>0.498</td>
<td>0.266</td>
<td>1</td>
<td>0.605</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>1.794</td>
<td>0.501</td>
<td>12.811</td>
<td>1</td>
<td>0.000</td>
<td>6.011</td>
<td>(2.251, 16.049)</td>
</tr>
<tr>
<td>Low</td>
<td>1.579</td>
<td>0.618</td>
<td>6.536</td>
<td>1</td>
<td>0.011</td>
<td>4.852</td>
<td>(1.446, 16.287)</td>
</tr>
<tr>
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<td>0</td>
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<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>1.412</td>
<td>0.525</td>
<td>7.234</td>
<td>1</td>
<td>0.007</td>
<td>4.103</td>
<td>(1.467, 11.478)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>1.348</td>
<td>0.529</td>
<td>6.495</td>
<td>1</td>
<td>0.011</td>
<td>3.851</td>
<td>(1.365, 10.851)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.063</td>
<td>0.560</td>
<td>0.013</td>
<td>1</td>
<td>0.910</td>
<td>0.993</td>
<td>(0.313, 2.811)</td>
</tr>
<tr>
<td>Low Eng</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.098</td>
<td>0.660</td>
<td>2.767</td>
<td>1</td>
<td>0.096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
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</tr>
<tr>
<td>High</td>
<td>1.721</td>
<td>0.665</td>
<td>6.704</td>
<td>1</td>
<td>0.010</td>
<td>5.592</td>
<td>(1.519, 20.580)</td>
</tr>
<tr>
<td>Low</td>
<td>2.615</td>
<td>0.749</td>
<td>12.202</td>
<td>1</td>
<td>0.000</td>
<td>13.665</td>
<td>(3.151, 59.265)</td>
</tr>
<tr>
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<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.465</td>
<td>0.597</td>
<td>0.607</td>
<td>1</td>
<td>0.436</td>
<td>1.592</td>
<td>(0.494, 5.126)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>0.902</td>
<td>0.585</td>
<td>2.381</td>
<td>1</td>
<td>0.123</td>
<td>2.465</td>
<td>(0.784, 7.756)</td>
</tr>
<tr>
<td>Lowest dose</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.438</td>
<td>0.626</td>
<td>0.489</td>
<td>1</td>
<td>0.485</td>
<td>1.549</td>
<td>(0.454, 5.282)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Estimate  
<sup>b</sup> Dose variable re-coded so that highest dose was the reference group. Only summary data presented.  
Deviance=9.723, df=8, p=0.285  
Reference category for dependent variable: No engagement

Specific alcohol topics discussed with Year 6 child in previous two weeks

Sample parents were asked at the first follow-up if they had talked with their Year 6 child about three specified alcohol-related topics in the two weeks prior to data collection. When compared with parents in the Comparison Group, a greater proportion of parents in both Intervention-groups 1 and 2 reported talking about more of the specified alcohol-related topics with their Year 6 children (Table 70).

Table 70: Number of essential alcohol topics talked about with Year 6 child in previous two weeks as reported by parents at follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Variable: # of essential alcohol topics talked about with Yr 6 child in last 2 weeks (max=3)</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inv Gp 1 (n=321)</td>
</tr>
<tr>
<td>0 topics</td>
<td>123 (46.2)</td>
</tr>
<tr>
<td>1-2 topics</td>
<td>52 (19.5)</td>
</tr>
<tr>
<td>3 topics</td>
<td>91 (34.2)</td>
</tr>
<tr>
<td>Missing</td>
<td>55</td>
</tr>
</tbody>
</table>
From the results of the ordinal logistic regression model (Table 71), significant differences emerged between parents in Intervention-group 1 and those in the Comparison Group (Wald=7.103, df=1, p=0.008). There were also significant differences between parents in Intervention-group 2 and those in the Comparison Group (Wald=7.640, df=1, p=0.006) with Intervention-group parents tending to talk about more topics than those in the Comparison Group. The magnitude of these differences was investigated by re-coding parents’ responses as either ‘Talked about at least one topic’ or ‘Talked about no topics’. Binary logistic regression was used to obtain odds ratios and confidence intervals. Parents in Intervention-groups 1 and 2 were both twice as likely, as the Comparison-group parents, to have talked about one or more of the specified alcohol-related topics with their Year 6 children at follow-up [OR=2.097, 95% CI=(1.429, 3.078) and OR=2.026, 95% CI=(1.307, 3.140) respectively].

Table 71: Number of essential alcohol topics talked about with Year 6 child in the previous two weeks: Ordinal logistic regression model estimates

<table>
<thead>
<tr>
<th>Variable: # alcohol topics</th>
<th>Est</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-0.467</td>
<td>0.174</td>
<td>7.215</td>
<td>1</td>
<td>0.007</td>
</tr>
<tr>
<td>2</td>
<td>0.311</td>
<td>0.166</td>
<td>3.490</td>
<td>1</td>
<td>0.062</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 topics</td>
<td>-1.294</td>
<td>0.189</td>
<td>46.874</td>
<td>1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>1-2 topics</td>
<td>-0.671</td>
<td>0.190</td>
<td>12.429</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>3 topics</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. 1</td>
<td>0.438</td>
<td>0.164</td>
<td>7.103</td>
<td>1</td>
<td>0.008</td>
</tr>
<tr>
<td>Intv. 2</td>
<td>0.511</td>
<td>0.185</td>
<td>7.640</td>
<td>1</td>
<td>0.006</td>
</tr>
<tr>
<td>Comp</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Estimate

Test of Parallel Lines: \( \chi^2 = 8.650, df=4, p=0.070 \)

Link function: Cauchit

Deviance: \( \chi^2 = 26.205, df=12, p=0.010 \)

Further analyses revealed statistically significant interactions between parents’ occupation and their study condition (Table 72). Parents in Intervention-group 1, whose occupation was classified as home duties, were more likely to be in higher categories (ie, more likely to talk about more alcohol-related topics), than parents whose occupation was classified as professional. When comparing the parents with a non-professional occupation to those classified as home duties, the latter were again more likely to be in higher categories than lower categories (ie, home duties parents were more likely to talk about more topics). Professional and non-professional
parents were also less likely than parents whose occupation was classified as ‘Other’, to talk about a higher number of alcohol topics.

When comparing the parents in Intervention-group 2 whose occupation was classified as professional to those classified as home duties, the difference was in the opposite direction with the professional parents more likely to talk about more of the three alcohol topics. Non-professional and professional parents were again less likely to talk about a greater number of the alcohol topics than parents, whose occupation was classified as ‘Other’.
Table 72: Number of essential alcohol topics talked about with Year 6 child in previous two weeks: Ordinal logistic regression model estimates including significant interactions

<table>
<thead>
<tr>
<th>Dependent variable: # alcohol topics</th>
<th>Est</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold values</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-0.232</td>
<td>0.250</td>
<td>0.860</td>
<td>1</td>
<td>0.354</td>
</tr>
<tr>
<td>2</td>
<td>0.576</td>
<td>0.252</td>
<td>5.237</td>
<td>1</td>
<td>0.022</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baseline value</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 topics</td>
<td>-1.332</td>
<td>0.206</td>
<td>41.776</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>1-2 topics</td>
<td>-0.722</td>
<td>0.210</td>
<td>11.804</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>3 topics</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Study Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0.876</td>
<td>0.292</td>
<td>9.022</td>
<td>1</td>
<td>0.003</td>
</tr>
<tr>
<td>2</td>
<td>0.408</td>
<td>0.334</td>
<td>1.496</td>
<td>1</td>
<td>0.221</td>
</tr>
<tr>
<td>Comparison</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>-1.153</td>
<td>0.683</td>
<td>2.847</td>
<td>1</td>
<td>0.092</td>
</tr>
<tr>
<td>Professional</td>
<td>0.774</td>
<td>0.324</td>
<td>5.700</td>
<td>1</td>
<td>0.017</td>
</tr>
<tr>
<td>Non-professional</td>
<td>1.008</td>
<td>0.448</td>
<td>5.064</td>
<td>1</td>
<td>0.024</td>
</tr>
<tr>
<td>Home duties</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Condition*Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1*Other</td>
<td>1.186</td>
<td>0.748</td>
<td>2.512</td>
<td>1</td>
<td>0.113</td>
</tr>
<tr>
<td>1*Prof</td>
<td>-1.273</td>
<td>0.420</td>
<td>9.183</td>
<td>1</td>
<td>0.002</td>
</tr>
<tr>
<td>1*Non-prof</td>
<td>-1.287</td>
<td>0.615</td>
<td>4.377</td>
<td>1</td>
<td>0.036</td>
</tr>
<tr>
<td>1*Home duties</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2*Other</td>
<td>1.512</td>
<td>0.826</td>
<td>3.348</td>
<td>1</td>
<td>0.067</td>
</tr>
<tr>
<td>2*Prof</td>
<td>-0.108</td>
<td>0.450</td>
<td>0.057</td>
<td>1</td>
<td>0.811</td>
</tr>
<tr>
<td>2*Non-prof</td>
<td>-0.894</td>
<td>0.663</td>
<td>1.818</td>
<td>1</td>
<td>0.178</td>
</tr>
<tr>
<td>2*Home duties</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp.* Other</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp.* Prof</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp.* Non-prof</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp.* Home duties</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional interaction terms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. group 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals v others</td>
<td>2.458</td>
<td>0.763</td>
<td>10.389</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>Non-professionals v others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intv. group 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals v others</td>
<td>-2.473</td>
<td>0.880</td>
<td>7.891</td>
<td>1</td>
<td>0.005</td>
</tr>
<tr>
<td>Non-professionals v others</td>
<td>-1.620</td>
<td>0.816</td>
<td>3.938</td>
<td>1</td>
<td>0.047</td>
</tr>
<tr>
<td>Intv. group 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals v others</td>
<td>-2.406</td>
<td>0.952</td>
<td>6.390</td>
<td>1</td>
<td>0.011</td>
</tr>
<tr>
<td>Non-professionals v others</td>
<td>1.165</td>
<td>0.418</td>
<td>7.778</td>
<td>1</td>
<td>0.005</td>
</tr>
</tbody>
</table>

*Estimate

Link function: Cauchit

Test of Parallel Lines: χ²=21.311, df=13, p=0.067

Deviance: χ²=54.408, df=57, p=0.573

As shown in Table 73, for this dependent variable, there were significant differences between responses of parents in the highest and middle intervention-dose categories and those in the lowest. Parents in the middle-dose category were twice as likely as parents in the lowest-dose category to report talking about all of the three essential
topics [OR=2.145, 95% CI=(1.109, 4.149)]. These same parents (middle dose) were also more than twice as likely as parents in the lowest intervention-dose category to report talking about one or two of the three essential alcohol-related topics [OR=2.336, 95% CI=(1.092, 4.996)].

Parents in the highest-dose category also responded differently to parents in the lowest-dose category and were twice as likely to have talked about all three alcohol topics in the previous two weeks [OR=2.164, 95% CI=(1.133, 4.131)].

Table 73: Number of essential alcohol topics talked about with Year 6 child in previous two weeks with Intervention-group parents only: Nominal logistic regression model for dose-response analysis

<table>
<thead>
<tr>
<th>Variable: # alcohol topics</th>
<th>Est</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3 of 3 topics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.296</td>
<td>0.294</td>
<td>19.415</td>
<td>1</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>1.092</td>
<td>0.301</td>
<td>13.127</td>
<td>1</td>
<td>0.000</td>
<td>2.981</td>
<td>(1.651, 5.383)</td>
</tr>
<tr>
<td>1-2 of 3 topics</td>
<td>0.394</td>
<td>0.295</td>
<td>1.782</td>
<td>1</td>
<td>0.182</td>
<td>1.483</td>
<td>(0.832, 2.645)</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>.</td>
<td>0</td>
<td>.</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inv. dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest dose</td>
<td>0.772</td>
<td>0.330</td>
<td>5.473</td>
<td>1</td>
<td>0.019</td>
<td>2.164</td>
<td>(1.133, 4.131)</td>
</tr>
<tr>
<td>Middle dose</td>
<td>0.763</td>
<td>0.337</td>
<td>5.140</td>
<td>1</td>
<td>0.023</td>
<td>2.145</td>
<td>(1.109, 4.149)</td>
</tr>
<tr>
<td>lowest dose</td>
<td>0</td>
<td>.</td>
<td>0</td>
<td>.</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid v highest</td>
<td>-0.086</td>
<td>0.272</td>
<td>0.001</td>
<td>1</td>
<td>0.975</td>
<td>0.991</td>
<td>(0.582, 1.688)</td>
</tr>
</tbody>
</table>

| **1-2 of 3 topics**         |      |     |      |    |      |      |         |
| Intercept                   | -1.937 | 0.358 | 29.245 | 1 | 0.000 |      |         |
| Baseline                    | 0.646 | 0.406 | 2.525 | 1 | 0.112 | 1.907 | (0.860, 4.230) |
| 1-2 of 3 topics             | 1.190 | 0.322 | 13.647 | 1 | 0.000 | 3.289 | (1.749, 6.185) |
| None                        | 0     | .    | 0    | . | .    |      |         |
| Inv. dose                   |       |     |      |    |      |      |         |
| Highest dose                | 0.501 | 0.398 | 1.581 | 1 | 0.209 | 1.650 | (0.756, 3.599) |
| Middle dose                 | 0.648 | 0.388 | 4.783 | 1 | 0.029 | 2.336 | (1.092, 4.996) |
| lowest dose                 | 0     | .    | 0    | . | .    |      |         |
| Mid v highest               | 0.348 | 0.326 | 1.140 | 1 | 0.286 | 1.416 | (0.748, 2.682) |

*Estimate
*Dose variable re-coded so that highest dose was the reference group. Only summary data presented.
Deviance=3.504, df=8, p=0.899
Reference category for dependent variable: Talked about 0 of 3 specified topics

Second Follow-up

Frequency data related to parent-child discussion of the specified alcohol topics were collected from parents at the second follow-up. When comparing the percentages for follow-up 1, (Table 70) to those for the second follow-up, (Table 74) overall there was a shift in the percentage of parents who reported talking about none of the specified alcohol topics at the first follow-up to talking about at least one topic at the
second follow-up. Also, the increase from follow-up 1 to follow-up 2 in the percentage of parents who reported talking about all three topics was greater in Intervention-group 1 (23.8%) and Intervention-group 2 (24.9%) compared to the Comparison Group (17.1%). These differences should be interpreted cautiously because the sample size at the second follow-up comprised only about 50% of the first follow-up sample.

Low differential attrition at the second follow-up made it possible, however, to compare parent-child communication variables between the Intervention and Comparison Groups (Table 74). Statistically significant differences in the intended direction between study conditions were evident ($\chi^2 = 12.619$, df=4, p=0.013).

Table 74: Number of essential alcohol topics talked about with Year 6 child in previous two months as reported by parents at second follow-up: Cross tabulation

<table>
<thead>
<tr>
<th>Dependent variable: # of essential alcohol topics talked about with Yr 6 child in last 2 months (max=3)</th>
<th>Condition</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inv Gp 1</td>
<td>Inv Gp 2</td>
<td>Comp Gp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(n=79)</td>
<td>(n=87)</td>
<td>(n=128)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>0 topics</td>
<td>11 (14.0)</td>
<td>13 (15.0)</td>
<td>35 (28.0)</td>
<td></td>
</tr>
<tr>
<td>1-2 topics</td>
<td>22 (28.0)</td>
<td>24 (28.0)</td>
<td>43 (34.0)</td>
<td></td>
</tr>
<tr>
<td>3 topics</td>
<td>45 (58.0)</td>
<td>50 (57.0)</td>
<td>48 (38.0)</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Section Summary

Logistic regression modelling indicated statistically significant differences between study conditions for all five alcohol-related dependent parent-child communication variables. The effects of the intervention on the alcohol-related dependent variables were much greater than those evident for the tobacco-related communication outcomes.

Ever talked about drinking alcohol with Year 6 child

The odds of parents in the Intervention Groups having ever talked with their Year 6 children about drinking alcohol were higher than for those in the Comparison Group. That is, compared to those in the Comparison Group, parents in Intervention-groups
1 and 2 were, respectively, almost three and 2.5 times more likely to have ever talked with their Year 6 children about drinking alcohol.

One demographic variable was a significant predictor of the 'Ever talked alcohol' dependent variable. That is, parents who reported a non-professional\textsuperscript{18} main occupation were significantly less likely to have ever talked with their Year 6 children about drinking alcohol than parents in other occupational-group classifications. This finding was repeated in the dose-response analysis.

Dose-response effects were evident for the 'Ever talked alcohol' dependent variable. Parents in the highest and middle intervention-dose categories both reported more than three times more often, having talked to their Year 6 child than parents in the lowest intervention-dose category.

*Recency of last parent-child discussion about drinking alcohol*

The recency of the last parent-child discussion about drinking alcohol was another of the dependent variables of this research. When compared to the Comparison Group, parents in the Intervention Groups were overall more likely to have talked more recently with their Year 6 children about drinking alcohol. Compared to those in the Comparison Group, parents in Intervention-group 1 were 3.2 times more likely to have discussed drinking alcohol with their children in the last two months and twice as likely to have done so in the last three to four months. Likewise when compared to parents in the Comparison Group, those in Intervention-group 2 were three times more likely to have talked about drinking alcohol with their Year 6 child in the last two months.

Significant dose-response effects were evident for the 'Recency of last parent-child discussion about drinking alcohol' dependent variable. Compared to those who reported the lowest intervention dose, parents who reported receiving the highest or middle dose of the intervention were significantly more likely to have talked more recently with their Year 6 children about drinking alcohol.

*Duration of last parent-child discussion about drinking alcohol*
With regard to the ‘Duration of the most recent parent-child discussion about drinking alcohol’ dependent variable, there were significant differences between the Intervention Groups and the Comparison Group for each of the response categories (i.e., periods of time). Parents in Intervention-groups 1 and 2 were more likely than those in the Comparison Group to have talked with their Year 6 child about drinking alcohol and to have talked for longer periods of time. In particular, Intervention-group 2 parents were increasingly more likely to have talked to their Year 6 Child for longer periods of time than the Comparison-group parents.

Two demographic variables (SES and occupation) were found to be significant predictors of this dependent variable. Firstly, parents classified as low SES were more likely to talk with their Year 6 children for five to ten minutes than parents classified as high SES. Secondly, parent’s occupation predicted the duration of the most recent parent-child discussion about drinking alcohol. Compared to those in other occupational groups, parents classified as non-professionals were less likely to be in a talking category (i.e., had not talked with their Year 6 children about drinking alcohol or couldn’t remember the duration of the last discussion). This appeared to be especially so for non-professionals in the less-than-five-minutes response category.

There were dose-response effects for duration of the most recent parent-child discussion about drinking alcohol variable. For each response category parents classified as receiving either the highest or middle dose of the intervention were consistently more likely than those in the lowest-dose category, to have talked with their Year 6 child (for any duration of time).

_Extent of engagement during parent-child discussions about drinking alcohol_

The level of parent-child engagement during alcohol-related discussions was assessed. Compared to those in the Comparison Group, those in Interventions Groups 1 and 2 were 1.8 and 3.5 times (respectively) more likely to report high engagement versus no engagement during alcohol-related discussions. In addition, when compared to those in the Comparison Group, parents in Intervention-group 2 were 2.6 times more likely to report low rather than no engagement.
Dose-response effects were evident for this dependent variable. That is, when compared to those in the lowest intervention-dose category parents in the highest-dose and middle-dose categories were about four times more likely than parents in the lowest-dose category to have reported high levels of engagement rather than no engagement during alcohol-related discussions with their children.

*Number of essential alcohol topics discussed*

Finally, parents were asked if they had talked with their Year 6 child about three specified alcohol-related topics in the two weeks prior to data collection. Significant differences were reported between parents in the Intervention Groups and those in the Comparison Group whereby the former tended to talk about more topics than the latter. In particular, parents in Intervention-groups 1 and 2 were twice as likely, as those in the Comparison Group, to have talked about one or more of the specified alcohol-related topics with their children.

Parents in Intervention-group 1, whose occupation was classified as home duties, were more likely to report talking about more alcohol-related topics than parents whose occupation was classified as professional or non-professional. Professional and non-professional parents were also less likely than parents whose occupation was classified as ‘Other’, to talk about a higher number of the specified alcohol-related topics.

When comparing parents in Intervention-group 2, whose occupation was classified as professional, with those classified as home duties, the difference was in the opposite direction, with the professional parents more likely to talk about more of the three topics. As for Intervention-group 1, parents whose occupation was classified as non-professional or professional were less likely to talk about a greater number of the alcohol topics, than those whose occupation was classified as ‘Other’.

Dose-response effects were evident for this dependent variable and parents in the middle-dose category were more likely than parents in the lowest-dose category to report talking about one or more of the three topics. Parents in the highest-dose category also responded differently to parents in the lowest-dose category. Highest-
dose parents were twice as likely as low-dose parents to have talked about all three of the topics in the previous two weeks, than to have talked about none of the topics.

Similar to the dose-response effects for the tobacco-related dependent variables, there were no differences between the middle and highest intervention-dose categories for any of the alcohol-related dependent variables suggesting the highest dose did not appear to be necessary to obtain an effect.

Data related to how many of the specified alcohol topics the study sample reported discussing with their Year 6 children in the two months prior the second follow-up indicated significant differences in the intended direction between study conditions.

6.5 Impact of Choice of Intervention on Communication Outcomes

Prior to the present study offering parents a choice of intervention content as a means to enhance recruitment and retention, did not appear to have been tested with parent-oriented interventions, or in a field such as drug-related parent-child communication.

Research Objective 5: Assess the impact of offering parents a choice of intervention content on communication outcomes

The logistic regression models presented in the previous section were utilised to identify whether offering parents a choice of intervention materials had an impact on the parent-child communication dependent variables. The models included the baseline measure of the dependent variable as well as any parent demographic variables found to have a significant independent effect on the dependent variables and/or any significant interaction effects. Significant differences between the dependent variable data reported by parents in Intervention-group 1 and those in Intervention-group 2 would indicate offering parents a choice of materials had an impact. The results of the comparisons between the two Intervention Groups from each of the logistic models were extracted and are summarised in Table 75.

No statistically significant differences were found between the responses of parents who were offered a choice of intervention materials (Intervention-group 1) and those who were not (Intervention-group 2). Results presented earlier in this chapter
indicated for some of the comparisons it was the responses of parents in Intervention-group 2 (no choice of intervention) that differed significantly from those of the Comparison Group. Therefore, Intervention 1 (choice) and Intervention 2 (no choice) could be considered to have similar effects on the parent-child communication variables of this research.

Table 75: Dependent communication variables: Intervention-group 1 (choice) versus Intervention-group 2 (no choice): Summary of modelling results

<table>
<thead>
<tr>
<th>Parent-child communication</th>
<th>Est</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking cigarettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever talked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes v Never/DR</td>
<td>-0.192</td>
<td>0.373</td>
<td>0.265</td>
<td>1</td>
<td>0.607</td>
<td>0.825</td>
<td>(0.398, 1.713)</td>
</tr>
<tr>
<td>Recency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 months ago</td>
<td>-0.130</td>
<td>0.382</td>
<td>0.115</td>
<td>1</td>
<td>0.734</td>
<td>0.878</td>
<td>(0.415, 1.857)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>-0.120</td>
<td>0.411</td>
<td>0.086</td>
<td>1</td>
<td>0.769</td>
<td>0.886</td>
<td>(0.396, 1.984)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>-0.379</td>
<td>0.529</td>
<td>0.512</td>
<td>1</td>
<td>0.474</td>
<td>0.685</td>
<td>(0.243, 1.932)</td>
</tr>
<tr>
<td>Never/DR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 mins</td>
<td>0.352</td>
<td>0.407</td>
<td>0.666</td>
<td>1</td>
<td>0.414</td>
<td>1.394</td>
<td>(0.628, 3.093)</td>
</tr>
<tr>
<td>&gt; 5 mins &lt; 10</td>
<td>-1.540</td>
<td>0.409</td>
<td>0.142</td>
<td>1</td>
<td>0.707</td>
<td>0.857</td>
<td>(0.384, 1.912)</td>
</tr>
<tr>
<td>&gt; 10 mins</td>
<td>0.750</td>
<td>0.453</td>
<td>0.028</td>
<td>1</td>
<td>0.868</td>
<td>0.927</td>
<td>(0.382, 2.254)</td>
</tr>
<tr>
<td>Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>-0.532</td>
<td>0.449</td>
<td>1.403</td>
<td>1</td>
<td>0.236</td>
<td>0.588</td>
<td>(0.244, 1.416)</td>
</tr>
<tr>
<td>Low</td>
<td>-0.435</td>
<td>0.485</td>
<td>0.804</td>
<td>1</td>
<td>0.370</td>
<td>0.647</td>
<td>(0.250, 1.676)</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥1 topic v none</td>
<td>0.080</td>
<td>0.194</td>
<td>0.172</td>
<td>1</td>
<td>0.679</td>
<td>1.190</td>
<td>(0.780, 1.82)</td>
</tr>
<tr>
<td>Drinking alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever talked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes v Never/DR</td>
<td>-0.117</td>
<td>0.329</td>
<td>0.127</td>
<td>1</td>
<td>0.721</td>
<td>0.889</td>
<td>(0.467, 1.695)</td>
</tr>
<tr>
<td>Recency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 months ago</td>
<td>0.048</td>
<td>0.324</td>
<td>0.023</td>
<td>1</td>
<td>0.880</td>
<td>0.952</td>
<td>(0.505, 1.796)</td>
</tr>
<tr>
<td>3-4 months ago</td>
<td>-0.231</td>
<td>0.354</td>
<td>0.428</td>
<td>1</td>
<td>0.513</td>
<td>0.793</td>
<td>(0.397, 1.587)</td>
</tr>
<tr>
<td>4-5 months ago</td>
<td>0.029</td>
<td>0.427</td>
<td>0.005</td>
<td>1</td>
<td>0.945</td>
<td>1.030</td>
<td>(0.446, 2.379)</td>
</tr>
<tr>
<td>Never/DR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 5 mins</td>
<td>0.082</td>
<td>0.426</td>
<td>0.000</td>
<td>1</td>
<td>0.983</td>
<td>1.009</td>
<td>(0.438, 2.326)</td>
</tr>
<tr>
<td>&gt; 5 mins &lt; 10</td>
<td>0.058</td>
<td>0.420</td>
<td>0.019</td>
<td>1</td>
<td>0.891</td>
<td>1.059</td>
<td>(0.465, 2.412)</td>
</tr>
<tr>
<td>&gt; 10 mins</td>
<td>0.515</td>
<td>0.441</td>
<td>1.365</td>
<td>1</td>
<td>0.243</td>
<td>1.674</td>
<td>(0.705, 3.973)</td>
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<tr>
<td>Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>0.669</td>
<td>0.421</td>
<td>2.532</td>
<td>1</td>
<td>0.112</td>
<td>1.953</td>
<td>(0.856, 4.455)</td>
</tr>
<tr>
<td>Low</td>
<td>0.705</td>
<td>0.460</td>
<td>2.344</td>
<td>1</td>
<td>0.126</td>
<td>2.023</td>
<td>(0.821, 4.988)</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥1 topic v none</td>
<td>0.007</td>
<td>0.168</td>
<td>0.188</td>
<td>1</td>
<td>0.665</td>
<td>0.966</td>
<td>(0.634, 1.471)</td>
</tr>
</tbody>
</table>

* Full models reported in Section 7.4
* From binary logistic regression model
* From nominal logistic regression model
* Odds ratio comparing odds in Intervention-group 1 to odds in Intervention-group 2
* Reference category
6.6 Impact of Intervention on Parent and Child Perceptions of Communication Outcomes

Previous research suggests there is substantial incongruence between parent and adolescent reports of parenting behaviours. The impact of the intervention on the level of agreement between the responses of parents and their children to the communication dependent variables was therefore assessed.

*Research Objective 6: Assess the impact of the intervention on the level of agreement between the responses of parents and their Year 6 children to equivalent communication variables*

Percentage agreement was used to indicate the level of agreement between parent and student responses to the dependent parent-child communication variables at baseline and the first follow-up. Parent data were matched with that of their child. As shown in Tables 76 and 77, the overall agreement between parents and their children, at both baseline and follow-up was low. The agreement between parent and child baseline dependent communication data, ranged from 24.1%-69.0% (mean=42.6%) for the tobacco-related items and 22.3%-63.0% (mean 40.56%) for the alcohol-related items. At the first follow-up, the agreement between parent and child data ranged from 24.8%-70.1% (mean=45.1%) for the smoking-related dependent variable data and from 25.5%-65.5% (mean=43.9%) for the alcohol-related variables.

The range of percentage agreement between parents’ and their children’s responses varied considerably. For example, at baseline there was 69.0% agreement for ‘Ever talked tobacco’ and only 24.1% agreement for the duration of the last parent-child discussion about tobacco. The highest agreement between parents and their children was found for the items that were easiest to recall. For example, ‘Ever talked’ would likely have been easier to remember than the ‘Duration’ of the last discussion.

All agreement increased at the first follow-up except for the number of essential tobacco and alcohol topics discussed. Overall, there appeared to be slightly greater average agreement between parent and child reports of communication variables at the first follow-up than at baseline. For example, the average agreement between parent and child reports increased by just over three per cent for both the tobacco (3.2%) and alcohol (3.3%) dependent communication variables. These differences
are small and could be reflective of testing effect because increases in agreement were also evident in the Comparison Group.

When comparing the level of agreement from baseline to the first follow-up, the percentage increased for most of the tobacco-related and the alcohol-related communication variables. Thus (irrespective of study condition) there was an average increase in the level of agreement from the first to the second data collection period for both the tobacco- and the alcohol-related variables. For the tobacco-related variables, however, the increase in the Intervention Groups appeared to be slightly larger than that in the Comparison Group. The average increase in agreement between parents and children in Intervention-group 1 was 4.4% and in Intervention-group 2 was 1.5%, while for the Comparison Group the average increase was 0.8%. For the alcohol-related variables, the greatest increase in average parent-child agreement occurred in Intervention-group 1 (average increase=5.3%), with smaller increases in the Comparison Group (average increase=1.7%) and Intervention-group 2 (average increase=0.3%).

The level of agreement between parent and student responses to the dependent parent-child communication variables at the second follow-up could not be determined because student data were not collected.

Table 76: Percentage agreement between parent and child communication responses at baseline

<table>
<thead>
<tr>
<th>Dependent Parent-Child Communication Variables</th>
<th>% Missing*</th>
<th>Overall (% agree)</th>
<th>Condition</th>
<th>Comp Gp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inv Gp 1</td>
<td>Inv Gp 2</td>
</tr>
<tr>
<td>Smoking cigarettes (n=1201)</td>
<td></td>
<td></td>
<td>% agree</td>
<td>% agree</td>
</tr>
<tr>
<td>Ever talked</td>
<td>1174</td>
<td>27</td>
<td>810 (69.0)</td>
<td>66.5</td>
</tr>
<tr>
<td>Recency</td>
<td>1174</td>
<td>27</td>
<td>500 (42.6)</td>
<td>42.2</td>
</tr>
<tr>
<td>Duration</td>
<td>1174</td>
<td>27</td>
<td>283 (24.1)</td>
<td>20.3</td>
</tr>
<tr>
<td>Level of engagement</td>
<td>1141</td>
<td>60</td>
<td>566 (49.6)</td>
<td>48.5</td>
</tr>
<tr>
<td>Essential topics</td>
<td>1105</td>
<td>96</td>
<td>309 (28.0)</td>
<td>23.9</td>
</tr>
</tbody>
</table>

| Drinking alcohol (n=1201)                      |            |                   |           |         |         |
| Ever talked                                   | 1172       | 29                | 739 (63.0)| 63.4     | 61.4    | 64.0    |
| Recency                                       | 1172       | 29                | 392 (33.4)| 33.9     | 33.1    | 33.0    |
| Duration                                      | 1169       | 32                | 261 (22.3)| 21.2     | 25.8    | 20.5    |
| Level of engagement                           | 1091       | 110               | 489 (44.8)| 45.0     | 43.1    | 46.1    |
| Essential topics                              | 1128       | 73                | 447 (39.6)| 42.7     | 43.4    | 35.9    |

* sample restricted to cases where the parent selected by the children, as the person who talked with them the most about alcohol and tobacco, was the parent who completed the questionnaire.
Table 77: Percentage agreement between parent and child communication responses at first follow-up

<table>
<thead>
<tr>
<th>Dependent Parent-child Communication Variables</th>
<th>Overall</th>
<th>Condition</th>
<th>Inq Gp 1</th>
<th>Inq Gp 2</th>
<th>Comp Gp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Missing*</td>
<td>n (Agree %)</td>
<td>Agree %</td>
<td>Agree %</td>
</tr>
<tr>
<td>Smoking cigarettes (n=830)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever talked</td>
<td>814</td>
<td>16</td>
<td>571 (70.1)</td>
<td>71.4</td>
<td>69.1</td>
</tr>
<tr>
<td>Recency</td>
<td>814</td>
<td>16</td>
<td>377 (46.3)</td>
<td>46.0</td>
<td>47.3</td>
</tr>
<tr>
<td>Duration</td>
<td>816</td>
<td>14</td>
<td>223 (27.3)</td>
<td>22.7</td>
<td>27.4</td>
</tr>
<tr>
<td>Level of engagement</td>
<td>809</td>
<td>21</td>
<td>460 (56.9)</td>
<td>57.1</td>
<td>59.0</td>
</tr>
<tr>
<td>Essential topics</td>
<td>638</td>
<td>192</td>
<td>158 (24.8)</td>
<td>26.5</td>
<td>27.7</td>
</tr>
<tr>
<td>Drinking alcohol (n=830)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever talked</td>
<td>815</td>
<td>15</td>
<td>534 (65.5)</td>
<td>70.0</td>
<td>66.2</td>
</tr>
<tr>
<td>Recency</td>
<td>816</td>
<td>14</td>
<td>293 (35.9)</td>
<td>42.1</td>
<td>38.2</td>
</tr>
<tr>
<td>Duration</td>
<td>817</td>
<td>13</td>
<td>208 (25.5)</td>
<td>26.6</td>
<td>25.0</td>
</tr>
<tr>
<td>Level of engagement</td>
<td>791</td>
<td>39</td>
<td>421 (53.2)</td>
<td>51.4</td>
<td>57.7</td>
</tr>
<tr>
<td>Essential topics</td>
<td>650</td>
<td>180</td>
<td>241 (37.0)</td>
<td>41.7</td>
<td>32.1</td>
</tr>
</tbody>
</table>

*sample restricted to cases where the parent selected by the child as the person who talked with them the most about alcohol and tobacco, was the parent who completed the questionnaire.

6.7 Chapter Summary

Presented in this chapter were the demographic and response characteristics of the study sample (parents) followed by the process evaluation results relevant to the dissemination and implementation of the intervention. The results of analyses related to the impact of the intervention on the parent-child tobacco- and alcohol-related dependent communication variables were presented and followed by an assessment of the impact of offering parents a choice of intervention materials. Finally, the impact of the intervention on the level of agreement between the responses of parents and their children to the communication dependent variables was assessed.

Useable data were obtained from 69.1% (n=830) and 24.5% (n=294) of the study sample (n=1201) at the first and second follow-ups respectively. While there were significantly different demographic differences between conditions at baseline, there was no evidence of significant baseline differences between study conditions for the socio-cognitive composite variables or the dependent parent-child communication variables. Such demographic variables were retained in subsequent statistical modelling of the dependent parent-child communication data. Attrition analyses indicated shortcomings in the sample representation and, like the baseline differences
between study conditions, they were controlled for in subsequent analyses. Sample
parents were successfully identified at both follow-ups and parent-child
communication data were accurately matched.

Triangulated process data indicated the parent intervention appeared to have been
successfully disseminated to, and implemented (read) by most Intervention-group
parents. Indicators of teacher satisfaction with, and the importance they attached to
the intervention materials and dissemination process were very positive. In addition,
there did not appear to be evidence suggesting the study was contaminated by other
parent education initiatives.

Logistic regression was used to assess the impact of the parent-directed intervention
on selected parent-child dependent communication variables. The separate impact of
parent demographic, and socio-cognitive variables on each of the dependent
variables was also investigated. Potential interaction between each demographic and
socio-cognitive variable, and the study conditions was assessed. Likewise, the
presence of interaction between each demographic variable and the dose variable was
investigated. Instances of statistically significant interactions and/or mediations were
included in the final logistic regression modelling of each parent-child dependent
communication variable.

Statistically significant differences were evident for both tobacco- and alcohol
related parent-child dependent variables. Parents in Intervention-group 1 were more
likely than parents in the Comparison Group, to have ever talked with their Year 6
child about smoking cigarettes; talked more recently; reported high parent-child
engagement during such communication; and to have talked about more of the four
specified tobacco-related topics. In addition, there were positive dose-response
relationships for these dependent variables. Female parents were more likely to have
reported higher levels of parent-child engagement. While there were no significant
differences between study conditions (Intervention-group 2 versus Comparison
Group was marginally significant) regarding the duration of the last parent-child
discussion about smoking cigarettes, there were positive dose-response effects.
Compared to Comparison-group parents, parents in Intervention-groups 1 and 2 were more likely to have ever talked with their Year 6 child about drinking alcohol. Occupation also had a significant impact where parents who reported a main occupation classified as non-professional were less likely to have ever talked with their Year 6 child about drinking alcohol than parents in other occupational-group classifications.

Compared to Comparison-group parents, those in Intervention-group 1 were more likely to have talked with their Year 6 children more recently about drinking alcohol. Parents in both of the Intervention Groups were more likely than parents in the Comparison Group, to have reported: talking for a longer duration; having higher parent-child engagement during such communication; and talking about more of the three nominated alcohol-related topics. Like talking with their Year 6 child about smoking cigarettes, there were positive dose-response relationships for the alcohol-related dependent variables.

The communication-related dependent variable data were analysed to determine if offering parents a choice of intervention materials had any impact on the parent-child communication dependent variables. There were no statistically significant differences between the responses of parents who were offered a choice of intervention materials (Intervention-group 1) and those who were not (Intervention-group 2).

While dose-response effects were evident between the high and/or middle intervention-dose categories and the low-dose category, there were no differences between the middle and high categories for any of the dependent tobacco- or alcohol-related dependent variables.

The overall agreement between parents and their children to equivalent parent-child dependent communication variables, at both baseline and first follow-up was low. Furthermore, the range of parent-child agreement between the items varied considerably. At the first follow-up, however, there appeared to be slightly increased levels of agreement between Intervention-group parents and their children, than there was between Comparison-group parents and their children.
CHAPTER 7 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction
This chapter provides a summary of this research, describes its limitations and considers its findings in relation to those of comparable empirically evaluated parent-targeted drug-related educational interventions previously identified and summarised in Chapter 2. Lastly, this chapter presents conclusions and recommendations arising from this study.

7.2 Summary of Study
The use of alcohol, tobacco and other drugs (ATOD) causes significant harm in Australia each year\textsuperscript{126-129}, the prevention of which is considered more cost-effective than treatment\textsuperscript{120, 171, 179}. Furthermore, there is consensus that young people should be a priority target group, as most health-related behaviours are adopted before adulthood\textsuperscript{5, 283, 286}. It is also recommended youth be targeted prior to the onset of ATOD-use behaviours\textsuperscript{65}.

Recent research addressing the theoretical basis of adolescent initiation of ATOD use, has focused on concepts of adolescent vulnerability and resilience\textsuperscript{16, 163}. These concepts provide the rationale of the Social Development Model, wherein several environmental, social and individual factors are either predictive or protective of
ATOD use (as well as other hazardous behaviours) during childhood and adolescence\textsuperscript{17-20}.

While social factors other than those associated with parenting play a role in determining a child’s risk for initiation of ATOD use, there is substantial evidence acknowledging the powerful influence of parental factors\textsuperscript{56, 89, 357}. The specific role of parents has been extensively investigated and four major groups of parenting factors have emerged as being either predictive or protective of the initiation of ATOD use by adolescents. These include, parental modelling of ATOD-use, the normative standards parents set regarding children’s ATOD use, parenting style and family management techniques, and the nature and content of parent-child communication\textsuperscript{17-20, 64, 65}.

In the absence of protective parenting practices, children are more likely to engage in a range of hazardous behaviours\textsuperscript{52, 113, 163, 217, 228, 293, 311, 319, 322}. It also appears the prevalence of such hazardous youth behaviours can be reduced by increasing the prevalence of effective parenting practices\textsuperscript{1, 101, 117, 124, 228, 285, 300, 307}. Further, there is evidence supporting the efficacy of parent-focussed interventions where the aim is to enhance parenting behaviours known to be protective of drug-use problems\textsuperscript{17, 163, 133}.

There is increasing empirical evidence of interventions that have enhanced the parent-child relationship and other protective parenting skills, especially those associated with hazardous ATOD use by children, but many are constrained by methodological shortcomings. While previous parent-directed educational initiatives provide useful information, only two were found to be sufficiently rigorous. These two interventions were ‘Preparing for the Drug Free Years’\textsuperscript{20, 103-105} and ‘Project Northlands: Amazing Alternatives Home Program’\textsuperscript{7, 45, 100, 101, 106-108}.

Many of the previous parent-targeted educational interventions have been only partially encouraging due to difficulties recruiting and maintaining substantial parent participation\textsuperscript{9, 37, 52, 62, 69, 73, 74, 76, 78, 80, 81, 83, 85, 86}. Furthermore, most parent-oriented intervention research has been conducted in North America and while their results suggest promise for parent training, the Australian experience with the implementation and evaluation of drug-related parenting education appears limited.
One recently evaluated Australian intervention reported positive parenting outcomes but unfortunately, the results are constrained by its methodology.\textsuperscript{90}

This research thesis utilised existing epidemiological, theoretical and empirical evidence to develop and test the effects of a parent-oriented primary-prevention drug-education intervention implemented in Perth, Western Australia during 1998-99. The overall aim was to recruit parents of Year 6 students to an educational intervention specifically targeting parent-child communication about drinking alcohol and smoking cigarettes. To address the limitations of previous research, the feasibility and impact of using choice to motivate parents to participate was also investigated.

This research was conducted in two stages. An initial Exploratory Study informed the design and content of a parent-targeted intervention. The subsequent educational intervention for parents was implemented and evaluated over a yearlong period and its impact on the recency, duration and nature of alcohol- and tobacco-related parent-child communication was assessed. Logistic regression modelling provided a means of estimating the impact of the intervention via odds ratios.

7.3 Limitations
Interpreting and generalising the results of any study usually warrants caution.\textsuperscript{564} Similarly, limitations relating to study design, recruitment, attrition, instrumentation, data analysis and the intervention itself, pose possible threats to the internal and external validity of the findings of this study.

Study Design
The design of this research (prospective randomised comparison trial) reduced the likelihood of commonly reported threats to validity.\textsuperscript{398} Furthermore, an attempt was made during the sample selection to account for differences in socio-economic status (SES) by stratifying eligible schools into one of three SES groups. School postal data is reported to be a suitable proxy measure of SES\textsuperscript{527} and was used to allocate schools to SES groups\textsuperscript{497}. The schools were then randomly selected and randomly assigned to one of the three study conditions. Parents and their Year 6 children were recruited from these schools using a process of passive consent.
Bias may have been introduced when the Principals of ten of the 27 originally selected schools, declined to participate. This bias was anticipated, with schools in each SES stratum being over-sampled to ensure schools could be replaced with those from the same SES stratification. The demographic and response similarities and/or differences between parents whose children attended the schools where the Principals declined to participate and those where Principals agreed, could not, however, be assessed.

Another source of design-related bias relevant to behavioural studies, where data are collected at discrete time points, is the expected temporal lags associated with the hypothesised effects. The time lag between measurement points may not have been conducive to measuring the effects associated with the parent-child communication variables considered in this study. Specifically, if the time between the beginning of the intervention and the first follow-up (which in this study was five months) was too long or too short, real effects may not have been detected.

The Randomised Comparison Trial was implemented over a one-year time period and coincided with school terms. Little evidence was available to indicate the immediacy or duration to expect for the hypothesised communication-related behavioural changes in this study. The time lag between baseline and the first follow-up in this study was determined by two factors. First, five months was considered long enough to allow for some behavioural change and second, there was a need to minimise potential attrition associated with following-up school students and therefore parents, from one school year to the next.

Parents who completed both the baseline and first follow-up questionnaires were assessed again, three months after the administration of the first follow-up (eight months since baseline data collection) to measure the extent of longer term sleeper or decay effects. The timing of the second follow-up was based on the practicalities associated with delivering the parent-oriented intervention via their children’s school. Therefore, the administration of the second post-test was completed before schools closed for the year.
While the randomised assignment of schools to study conditions provided some degree of confidence for tests of intervention effects, a similar study of different duration (i.e., where the temporal lag between the administration of the intervention and the collection of follow-up data was longer) might produce somewhat different results. For example, The Project Northlands study was of three years duration with a parent intervention component each year.\textsuperscript{100}

**Recruitment**

Self-selection bias may have been introduced when insufficient Intervention-group 1 parents responded at baseline to fulfil the sample size requirements for this study condition. This necessitated the recruitment of two previously randomly selected stand-by schools. While care was taken to ensure replacement schools were similar to original schools, the extent of this bias remains unknown, as baseline non-respondents were not able to be followed-up.

Differential attrition analyses were undertaken to examine how parents in Intervention-group 1 differed from those in the other study conditions. Significant differences were evident for four and five demographic variables at the first and second follow-up points respectively, but the pattern of these differences were largely consistent with those evident between study conditions for the full sample at baseline. In addition, subsequent data analyses controlled for baseline differences.

The impact of self-selection bias on the parent sample is unknown, but the initial response rate of 90% suggests it is low. The likelihood of self-selection bias was further minimised as students selected the parent who talked with them the most about smoking cigarettes and drinking alcohol. There was also an imbalance of women over men recruited to this study and this is most probably an artefact of children’s selection of a parent rather than evidence of selection or recruitment bias. Further, in the majority of cases (89.4%), the parents selected by the students at baseline were the parents who completed the baseline questionnaire (n=1151).

As reported in Chapter 6, the recruitment procedure produced equivalent groups at baseline in terms of the dependent parent-child communication variables and the socio-cognitive composite variables. Baseline in-equivalence, however, existed for
six of the 13 parent demographic characteristics (ie, age, education, SES, citizenship, birth country and previous participation in a parenting course). These variables were therefore retained in subsequent statistical modelling of the dependent parent-child communication data. Further, when modelling the dependent communication variables, the baseline scores of the dependent variables were included, thus minimising the demographic differences between conditions at baseline\textsuperscript{398}.

Since the parent sample was recruited from schools, the data are likely to be clustered by school\textsuperscript{525}. In this study, parents were not sampled independently of other parents. Instead schools were recruited, and as such, parents were presumed to be more alike in their responses than if they were sampled independent of the schools. While most studies have found relatively little dependence among observations in the nested structures that occur in school-based studies\textsuperscript{482, 526}, even small dependencies can bias significance tests\textsuperscript{525}. If not modelled in statistical analyses, dependence among observations is known to inflate Type I error (ie, the probability of rejecting the null hypothesis when it is true)\textsuperscript{525}.

The original sample size calculation for this study was therefore inflated to account for the potential effect of the cluster sample design and intra-school correlation coefficients were calculated for each of the parent-child dependent communication variables. This multi-level modelling analysis (using MlwiN) indicated very low levels of school-level variance\textsuperscript{526} (typically 1% to 3% of the total variation) among parent respondents from the same schools. In addition, the difference in the deviance values for the models including and excluding school-level variance terms were negligible (less than 0.002), indicating these terms are not significantly different from zero. While shared variance remains a limitation of this research, the values were found to be so small they were unlikely to impact on the findings. The threat of Type I error is therefore considered minimal.

Finally, in regard to possible recruitment biases, the parent sample was recruited from 20 large (ie, a Year 6 enrolment of greater than 60 students) metropolitan, government primary schools. The degree to which findings can be generalised to parents whose children attend different types of schools (for example, smaller non-metropolitan, non-government schools) is unknown. Furthermore, as mentioned
previously at the first contact during the recruitment phase of this study, ten of the eligible schools chose not to participate and data from parents whose children attended these schools were not collected. Like the recommendations of similar studies\textsuperscript{182, 342}, caution is therefore warranted in generalising beyond the population involved in the present study.

\textit{Attrition}

Bias related to attrition is reported to be common in parent studies\textsuperscript{45, 330}. Numerous strategies, including reminders, project updates, newsletters for teachers, small incentives for the children of parents who responded and personal address labels on all parent correspondence, (see Chapter 5 for other examples) were used to minimise attrition.

While very few of the study sample withdrew consent (2.6\% \(n=39\)), an examination of attrition revealed some differences in the sample representation (Chapter 6). Similar to the baseline demographic differences between study conditions, these were controlled in logistic regression modelling of the dependent parent-child communication outcomes.

\textit{Instrumentation}

The data collected in this study likely contain instrument-related error\textsuperscript{398}. The internal validity of the data collected may be threatened by weaknesses in the data collection instruments themselves, the data collection processes, and/or contained in parent responses to the instruments.

\textit{Data Collection Instruments}

As reported in other similar studies\textsuperscript{364, 515}, the reliability of the data collected requires the results be treated with caution. Several strategies were used to enhance reliability of the written surveys\textsuperscript{514}. For example, careful wording, closed questions, mutually exclusive response options, expert-panel review, pilot testing, administrator training, rigorous adherence to an implementation protocol, test-retest stability analysis and a comparison group were all utilised in this study.
Based on the recommendations of Hass\(^{653}\) (Kappa >0.40=acceptable reliability and Kappa <0.40=Poor or Fair reliability), most of the parent and student demographic variables and the variables later reduced to become the parent socio-cognitive variables (ie, Knowledge, Importance, Confidence and Outcome Expectancy) had acceptable test-retest reliability. Several of the dependent communication variables, however, had only Fair test-retest reliability. These results are likely conservative due to testing effects. An assumption of reliability is that the variable being measured remains constant. A potential problem associated with the test-retest procedure is the first measurement may affect the second\(^{514}\). It is likely that completion of the first questionnaire alerted parents to drug-related topics they could discuss with their children and thus prompted some parents to discuss these topics. If this were the case, parent responses to the same items at the second administration of the questionnaire, would be genuinely different. The Fair reliability ratings may therefore be a reflection of the communication behaviours actually changing, rather than the parent-child communication items being unreliable. The inclusion of a comparison group in the design of this study was therefore important as any testing effects would be present in both the treatment (Intervention Groups 1 and 2) and comparison conditions.

In addition, the Fair reliability ratings for a few of the dependent communication variables are likely due to very limited variation in parent responses. The Kappa statistic is an inappropriate reliability statistic for items where most of the agreement is limited to only one of the response choices, because in such situations the Kappa becomes unstable\(^{653}\).

In hindsight, the use of the test-retest procedure to determine instrument reliability was inappropriate because the communication variables were dynamic in nature and thus could be expected to change over time\(^{525}\). Testing effects should have been anticipated and a more suitable reliability assessment method used. The split-half reliability assessment procedure, for example, measures reliability in a single session and is less vulnerable to testing effects\(^{514}\).

In a separate attempt to validate the dependent communication data provided by parents, child reports of parent-child communication were collected and compared.
These data, however, did not converge well and there are two possible explanations. The parent-child communication questions may have been unreliable or not valid, or as has been found in other research, parents thought they talked about smoking cigarettes and drinking alcohol with their children, but did not engage on a level that was registered by their children\textsuperscript{423, 446}.

Finally in regard to reliability, after the first follow-up, the agreement between parents' written responses and their verbal responses to the same items (administered via telephone interview) was examined. The parent-child communication data were anticipated to be dynamic, testing effects were expected and therefore specifically assessed in the telephone interview. While the proportional agreement, as measured by Kappa, between the resultant data sets (self-completion survey versus telephone administration) were mostly Fair or Poor, the existence of a testing effect was confirmed. That is, parents reported that completion of the written questionnaire prompted them to talk with their children about topics raised in the questionnaire. The agreement obtained via this test-re-test process may therefore be deemed conservative.

The final instrumentation-related weakness of this research relates to the apparent ceiling effects for many of the socio-cognitive variables, such that there was little room for parents to improve between baseline and the first follow-up. For example, at baseline when asked how confident they felt regarding talking with their children about seven specified drug-related topics, on a five-point scale ranging from strongly disagree to strongly agree most parents reported strongly agreeing. They were already reporting the highest possible scores at baseline and therefore, the instrument items may not have been sufficiently sensitive. That is, the response categories may have been too general to capture subtle distinctions\textsuperscript{503}. This was not found during the piloting phase of the development of this instrument. This limitation is reported in previous similar research\textsuperscript{62} and does not pose a great threat to the findings, as ceiling effects are reported to mitigate against finding intervention effects\textsuperscript{84}.
Data Collection Processes
The processes used to collect the study data may limit the findings of the present study. For example, the parent-child communication variables were not directly measured. A comparison of the parents' self-reported data, with observational or self-report data from independent observers, would have been preferable. This, however, was not feasible due to the expense, expediency and ethics associated with collecting observational data and also the potential for behaviour to change when observed\textsuperscript{398, 515}.

There is ample literature on the benefits of utilising multi-method, multi-informant measurement procedures to maximise the validity of data collected\textsuperscript{241, 317, 327}. For this reason, the dependent parent-child communication data analysed in this study were collected from both parents and their children using equivalent questionnaire items. Likewise, dissemination and implementation data were collected from at least two sources and utilised at least two data collection instruments in each instance (Chapter 5).

Response Biases
The data collected in this study are probably limited by response biases. Baseline and follow-up surveys were administered to parents and their Year 6 children and therefore reactive effects of repeated testing (John Henry effect) and their awareness of being measured (Hawthorne effect) may bias the results\textsuperscript{398, 514}. It is possible there was interaction between the data collection instruments and the parent intervention. The baseline surveys may have sensitised parents and children, making them more attentive or responsive to the intervention (Hawthorne effect). Likewise, there may have been differences between the Intervention and Comparison Groups in the validity of parent and child reports of parent-child communication variables. For example, students delivering the intervention materials to parents knew their parents were in this study and this knowledge might have influenced their responses. The validity of data provided by Intervention-group parents might have been similarly affected.

As the Hawthorne effect is a commonly cited limitation of intervention-based research\textsuperscript{45, 94, 216, 343}, it was anticipated and irrespective of study condition, all parents
were administered a baseline and two follow-up surveys. The likelihood of John Henry effect could have been minimised by providing parents in the Comparison-group with an equivalent but unrelated intervention. This strategy was not implemented due to financial and logistical constraints associated with developing and physically delivering a five-part parent-intervention to the six geographically diverse Comparison-group schools.

Social desirability bias is another commonly cited limitation of research of this nature\textsuperscript{45, 94, 107, 216, 240, 342, 498} and particularly so when sensitive behaviours such as parenting effectiveness are studied\textsuperscript{521}. In this study, parent-child communication behaviours were self-reported and while this methodology is generally considered valid for school-based research\textsuperscript{529}, parents might have selected response categories that made them appear to be better communicators\textsuperscript{521}.

Socially desirable responding was anticipated and several strategies, utilised in previous research to minimise this bias, were implemented\textsuperscript{107}. For example, the choice of several response options is reported to help parents answer more honestly and with reduced levels of embarrassment or feelings of inadequacy\textsuperscript{415}. Therefore, where possible, ‘Unsure’ was included as one of the forced-choice response options. Responses such as ‘Always’ and ‘Sometimes’ were included for the same purpose. In addition, five-point Likert scales were used in order to offer response options in addition to ‘Yes’ and ‘No’\textsuperscript{521}.

The likelihood of socially desirable self-reports from both parents and children is also reported to be minimised by stressing and assuring anonymity for respondents\textsuperscript{241, 274, 521, 529}. Respondents in this study, however, could not be assured of anonymity because the data provided by parents was matched to their children’s. In circumstances where anonymity is not possible, maintaining respondent confidentiality is recommended\textsuperscript{241, 274, 521, 529}. Hence in this study, respondents were assured the information they provided would remain confidential. They were also informed only the researcher would see their responses and they were given sealable envelopes in which to place their completed questionnaires. The sealed envelopes were then returned to the researcher via the school and even though respondents were informed school personnel would not see their answers, this possibility may have
compromised their comfort levels and increased the likelihood of socially desirable responding.

The use of data collection processes less susceptible to social desirability bias is reported to be another way to minimise this threat to validity\(^{244, 317, 327, 398}\). Direct observation of parent-child communication is one such strategy and has been used in similar previous research but the samples were relatively small (n=209, n=220). While direct observation was feasible and affordable in these smaller studies\(^{305, 304}\), the baseline sample in this study was large (n=1114) rendering in-home direct observations of parent-child communication impractical and cost-prohibitive. Direct observational data, as discussed earlier, are also vulnerable to Hawthorne effects.

The ability of most individuals to recall past events is often biased, as it may vary according to the event's salience, the length of time between the event and the requested recall, and individual differences in education and memory\(^{496}\). The validity of the study data may be compromised by such recall bias as they relied on participants' (parents' and children's) recollections of parent-child communication. To minimise potential recall bias, the time interval was narrowly defined (i.e., in the last two weeks) and related to specific conversations and topics\(^{323}\).

Finally, the study design included a comparison group and response biases, if present, would also be reflected to some extent in the responses of Comparison-group parents. By comparing the behavioural changes between parents in the Intervention Groups with those in the Comparison Group, the affects of these biases were further minimised.

**Data Analysis**

Decisions about data analyses techniques usually impact on the integrity of findings\(^{398}\). In keeping with the experimental design of this study, regardless of the extent of their participation in the intervention, all parents assigned to the Intervention Group conditions were included in the analyses as Intervention-group parents. Used in previous similar studies\(^{305}\), this approach provides a more conservative estimate of intervention effects by maintaining the experimental integrity of the study's design, thereby minimising this threat to internal validity (i.e,
selection bias). In addition, dose response analyses were undertaken to investigate the impact of the intervention on parent-child communication variables.

**Intervention**

Factors associated with the educational intervention may detract from the integrity of the findings of this study. The design and content of the intervention materials were consistent with the principles of adult learning. Individuals, however, may have differed significantly in their response to the learning experience provided by the intervention. Several factors (eg, stressful life conditions such as marital difficulties, illness, or financial concerns) may have influenced their capacity to learn. While such moderating factors have been shown to influence the findings of previous parent-directed intervention research, their influence on the findings of this research is unknown.

Both the intervention content and the variables assessed in this study focussed on very specific aspects of parent-child drug-related communication. It is recommended such communication be studied in the more holistic context of other protective parenting factors. A limitation of this study is that data addressing other aspects of parenting reported to impact on children’s decisions about ATOD use (such as parent-child closeness, parental monitoring of children and normative standards set and enforced by parents about children’s drug use) were not collected.

During the course of this study, sample parents may have been exposed to, or attended, general parenting-skills training and/or parent drug education programs. If this occurred, the intervention may have been contaminated. This limitation was, however, anticipated and process data provided by both teachers and the study sample (both Intervention- and Comparison-group parents) indicated no evidence of contamination. This limitation was also minimised by the study design (ie, inclusion of the Comparison Group).

In summary, it is possible the findings of the present study may be spuriously enhanced or deflated due to limitations associated with study design, recruitment, attrition, instrumentation, data analysis and the intervention itself.
7.4 Discussion of Findings

In this section the findings of this study are considered in relation to those of comparable empirically evaluated parent-targeted ATOD-related educational interventions. As discussed in the Literature Review (Chapter 2), two of the nine drug-related parent-oriented educational intervention studies identified as meeting the inclusion criteria, appeared to be rigorously conducted. While the remaining seven studies used less rigorous research methods, they provide useful information and have been used for comparison purposes in the following discussion.

Sample Characteristics

This study sample comprised of 1201 parents, the majority of whom were either the mother or stepmother (75%). This is consistent with the results of many previous parent intervention studies\(^{62, 68, 72, 94, 101, 277, 402, 403}\), where mothers appeared more inclined than fathers to participate.

Traditionally fathers have been reported to comprise only negligible or small proportions (1% to 19%) of parent samples\(^{31, 68, 72, 94, 101, 200, 302, 330}\). In this study, however, fathers and stepfathers comprised 23.5% of the sample. This is probably associated with the study methodology. The children in this study were asked to select the parent (or other adult carer) they would like to participate based on who talks with them the most about smoking cigarettes and drinking alcohol.

Similar to previous studies involving the parents of young adolescents\(^{62, 101, 105}\), the majority of the sample were aged between 30 and 40 years (63.2%), married (78.3%), had two or three children (70.8%) and had not previously participated in formal parenting (85.4%) or communication (93.0%) skills training\(^{103, 105}\).

Using home-based educational interventions for parents, disseminated via schools and initiated by their children, is reported to be useful in reaching parents of diverse socioeconomic groups\(^{37, 100, 105}\). Therefore in this study, an attempt was made to recruit parents from a range of SES groups. Schools were selected via stratified random sampling\(^{398}\) (using the school post-code and census information) and parents were recruited from the schools. This resulted in the recruitment of not only parents from the whole SES spectrum but also a predominance of low SES parents. Almost
half of this sample (48.5%) resided in suburbs where the school’s postcode was classified by SEIFA (Australian Bureau of Statistics 1991 Census Socio-economic Indexes for Areas) as low SES. This finding suggested that the SES classification of the schools did not converge well with the SES classification of the postal area where parents resided.

Overall, the education levels of respondents in this study appeared to be lower than that reported in other similar studies. One half of this study sample (50.1%) reported not completing Year 12 at secondary school and 80.8% reported no education beyond secondary school. Higher parent education levels were reported in the PDFY project, where 56.5% received some post-secondary education. Likewise the Project Northlands Year 7 Home Program (Amazing Alternatives) reported 51% of the parent respondents had greater than high school education.

**Response Rates**

In this study a range of strategies was utilised to maximise responses. In line with the recommendations of previous parent intervention research, incentives for families were offered. For example, parents were informed if they returned the survey, whether it was completed or not, their child’s name would go into a draw for a shopping voucher (four $50 vouchers were offered at each follow up).

Creating a climate of enthusiasm for parent involvement among their children is suggested to be an important motivational factor related to both the initial recruitment and the continuing participation of parents. One additional simple but effective incentive strategy used in the present study, involved the distribution of small rewards (stickers) to all children who took a parent questionnaire home and to all children whose parents returned questionnaires (completed or not completed). In this way every child could obtain a reward. This strategy did not appear to have been reported in previous related research. It was based on findings from the formative stages of this study whereby parents indicated they would be more likely to respond if they thought their child would be rewarded for their participation.
As a consequence, high response and retention rates were secured at baseline and maintained at the first follow-up. The majority (90% n=1338) of eligible parents returned a baseline questionnaire and 81% (n=1201) provided complete baseline data. This baseline response compared favourably with previous studies in that it was either about the same\textsuperscript{101} or better.\textsuperscript{73, 94, 105}

Also, as recommended in the literature\textsuperscript{28, 31, 94, 271, 399}, and implemented in previous similar research\textsuperscript{83, 100, 101, 103, 105-107, 202}, this parent-oriented research was closely linked to schools. For example, parents were advised the school Principal had approved the research and the Year 6 classes were used as a conduit to disseminate surveys and the intervention to parents.

Other strategies designed to maximise response rates, included making participation as personal as possible for each parent. That is, children selected the person (parent or other adult with whom they lived) they wanted to participate and all envelopes containing correspondence (ie, surveys or intervention materials) were personally addressed by students to the adult they nominated.

This study sample was followed-up twice after the completion of the intervention. In terms of study retention, 69% (n=830) returned the first follow-up questionnaire completed (ie, all the questions had been answered). Compared to a recent Western Australian parenting intervention study (Triple P)\textsuperscript{90} with a similar sample size, this response was lower. The children of the parent sample for the Triple P study were, however, much younger (eg three to four years of age) than those in this study (10 to 11 years of age) and thus may possibly have been more inclined to remain in the Triple P study. There is some evidence suggesting that as children approach adolescence, their parents may disengage on some issues\textsuperscript{357}. One rationale suggested for this disengagement, is parents feel their children no longer perceive them to be credible sources of information\textsuperscript{357}. It has also been suggested that as children approach adolescence, they may become increasingly resistant to completing school activities with their parents\textsuperscript{101}. This process of parent-child disengagement is also thought to occur because many parents feel increasingly unable to influence their adolescents’ decisions and feel inferior to peers with respect to ATOD information\textsuperscript{37}.\textsuperscript{287, 357, 417}
When compared with parent intervention studies, where the children were of a similar age, the follow-up response rates achieved were lower than the Project Northlands Year 7 Home Program (Amazing Alternatives)\textsuperscript{101} research, and better than The PDFY Project\textsuperscript{105} and The Keep a Clear Mind Project\textsuperscript{62}. Comparison with follow-up response rates of the remaining similar studies, reviewed in Chapter 2, was not possible because they did not always report baseline and/or follow-up response rates\textsuperscript{69, 94, 402, 404}.

The response at the second follow-up in the present study, was low (24.5\% n=294) compared to the first follow-up. It was also low in comparison to other similar studies where parents were followed-up more than once\textsuperscript{96, 101}. Response bias rendered comparisons between findings at the second follow-up with those at baseline and the first follow-up invalid (due to the increased probability of Type I error\textsuperscript{98}). Low differential attrition at the second follow-up made it possible, however, to compare parent-child communication variables between the Intervention and Comparison Groups.

Positive intervention effects on the number of specified tobacco-related topics about which parents talked with their Year 6 child appeared to decay between the first and second follow-ups. Amongst those who remained in the study, by the second follow-up there were no significant differences between study conditions with regard to how many of the specified tobacco-related topics parents reported discussing with their Year 6 children. In contrast, the positive intervention effects on the number of specified alcohol-related topics parents discussed with their Year 6 child, did not appear to decay between the first and second follow-ups. Further, at the second follow-up the increase in the percentage of parents who reported talking about all three alcohol-related topics was still greater in both Intervention Groups compared to the Comparison Group.

Finally, the high response rates from parents at both baseline and the first follow-up improve the validity of these findings. They also compare favourably with other similar studies and given the staged process used to disseminate and collect questionnaires (ie, researcher to schools, teachers to students and students to parents), the response rates at baseline and the first follow-up are very high.
Impact of the Intervention on Parent-child Communication Outcomes

Factors related to the nature of parent-child communication are hypothesised to improve family bonds that in turn are protective of drug-use problems (and other hazardous teenage behaviours)\(^{165, 117, 163, 228}\). Where parents have been consulted about what they want in an ATOD education intervention, there is a strong demand for information that will help them communicate with and help their children manage ATOD-related situations\(^{85, 98, 102, 409, 417, 418}\). How to broach the subject of ATODs and how to talk with children about such issues, appear to be common parental needs\(^{426, 427}\). From the literature review (Chapter 2) and the findings of the Exploratory Study (Chapter 4), it seemed that enhancing the nature, frequency and content of parent-child communication might have high utility. This study therefore evaluated the impact of a home-based parent-oriented intervention designed to enhance tobacco- and alcohol-related parent-child communication. Effects of the intervention on the tobacco- and alcohol-related communication outcomes were assessed separately and therefore are considered separately in the following discussion.

Tobacco-related Parent-child Communication

The parent-directed intervention seems to have enhanced parent-child tobacco-related communication. Statistically significant differences were evident between study conditions for all of the tobacco-related parent-child communication outcomes assessed, and in particular for Intervention-group 1 versus the Comparison Group. Intervention-group parents were 1.6 to twice as likely as those in the Comparison Group to have ever talked to their Year 6 child about smoking cigarettes and 2.0 to 2.3 times more likely to have reported doing so in the previous two months. Intervention-group 1 parents were also 2.6 times more likely to report high engagement when talking with their Year 6 child about smoking cigarettes and reported talking about more of the four specified smoking-related topics than did parents in the Comparison Group. In particular, Intervention-group 1 parents were 1.5 times more likely to have talked about at least one versus none of the specified smoking-related topics with their Year 6 child at the first follow-up.
In addition to the above statistically significant differences, the estimated odds of enhanced communication outcomes were consistently higher in Intervention-groups 1 and 2 as compared to the odds in the Comparison Group.

There were no significant differences between the study conditions at the second follow-up with regard to the number of tobacco topics parents talked about with their children. The differential attrition at the second follow-up was largely consistent with that evident between study conditions for the full sample at baseline, and all data analyses controlled for baseline differences. This finding may therefore be due to a decay of intervention effects or it might reflect an intervention threshold effect.

Strategies termed intervention ‘boosters’ or ‘top-ups’ have been included in previous drug-related school-based health promotion projects to minimise decay of intervention effects\textsuperscript{158, 237, 531, 532}. The possible decay effects in the present study, might have been reduced if booster strategies had been disseminated to Intervention-group parents at appropriate post-implementation intervals to prompt parent-child discussions of the tobacco-related topics\textsuperscript{258}.

Utilising booster strategies is widely supported as an important inclusion in student-oriented drug education interventions\textsuperscript{158, 237, 531, 532} and could logically be applied to parent-directed interventions. Many previous drug-related parent-oriented training programs utilised a staged intervention but they didn’t appear to implement boosters after the completion of the intervention period\textsuperscript{62, 73, 89, 90, 94, 100, 103, 105, 107, 402, 404}. In hindsight, strategies designed to boost intervention effects could have been included in the methodology of the present study.

Comparison of these findings with those of previous similar studies is, for several reasons, problematic. It is difficult to compare the results of this study with those of The Preparing for the Drug Free Years Project (PDFY)\textsuperscript{105}, because the latter reports more general parent-child communication variables (such as parental assertion and responsiveness). While both analysed data provided by parents, the present study focused on more specific aspects of communication such as the recency, duration, level of engagement and specific content of tobacco-related discussions. While both studies targeted parents of similar-aged children (ie, 10-11 years), they aimed to
improve different aspects of parent-child communication. The PDFY Project reported enhanced pro-active parent-child communication (measured by parental use of assertion and responsiveness during set tasks) as a result of intervention participation\textsuperscript{103, 105}. The findings of the present study suggest a home-based intervention can also produce more specific parent-child communication outcomes such as enhancing the nature, frequency and content of tobacco-related discussions.

Similarly, the communication outcomes of the present study also appeared to be more specific than the Triple P Project\textsuperscript{99, 402}, where the outcomes related to general parenting skills, such as reducing aversive parenting.

Another drug-related adult-child communication intervention-based study, called Talking Together\textsuperscript{89}, comprised an adult communication-skills intervention designed to prevent adolescent smoking. Its findings, however, require cautious interpretation due to design flaws and the likelihood of the sample not being comparable with that of the present study. The Talking Together Project sample was non-randomly selected with no mention of response rates or sample representation. In addition, the sample was quite small (n=125) and comprised other adults in addition to parents. The proportion of the sample that was parents was not identified and the demographic variables did not include educational level or SES data\textsuperscript{89}.

Like Triple P, The Talking Together Project focussed on general parent-child communication skills. While, positive parent-child communication outcomes were reported, the outcomes themselves were related to improving the processes the adult participants used when communicating with children. For example, they reported using the skills of reflective listening and assertion at least five times in the month prior to post-test\textsuperscript{89}. By contrast, the present study investigated the nature and content of parent-child tobacco-related communication.

Project PRIDE\textsuperscript{404}, another less rigorous parent-directed drug education intervention study, reported not being able to explain the ambiguous intervention effects on the general parenting-skills variables under consideration (i.e., setting limits for children, effective communication, decision making and conflict resolution). The sample size, validity and reliability of data collection instruments and completeness of the
intervention related to Project PRIDE were not reported. Furthermore, comparison of the findings from Project PRIDE with those of the present study was inappropriate because substantial incongruence is reported to exist between parent and adolescent reports of parenting behaviours\textsuperscript{114, 311, 345, 356}. The Project PRIDE research analysed children’s reports of parent-child communication and the present study analysed data provided by parents.

Ordinal logistic modelling revealed gender differences associated with one of the tobacco-related parent-child communication variables. Female parents were 2.7 times more likely than male parents to have reported high engagement versus no engagement during tobacco-related discussions with their Year 6 child, and 3.1 times more likely than males to have reported low versus no engagement. Likewise, the Preparing for the Drug Free Years Project reported differential outcomes based on parent gender\textsuperscript{109, 105}. Mothers were more likely to report than fathers engaging more pro-actively with their children during general family interaction. Fathers, however, reported being more engaged with the children than mothers, in problem solving activities. As most 10-11 year old children in Western Australia have not experimented with smoking tobacco\textsuperscript{4}, parent-child discussions about smoking would likely fall into the general family interaction category rather than the problem-solving category. If this were the case then maybe the finding of the present study that mothers were more likely to report higher levels of engagement than fathers during parent-child discussions about smoking, is reasonably consistent with the findings of the PDFY Project.

While Project SixTeen\textsuperscript{94} had several design limitations (ie, non-random recruitment, unreported sample representation, and no analysis of response clustering), data were provided by parents, regarding their intentions to talk with their 6\textsuperscript{th} to 8\textsuperscript{th} grade children about not smoking tobacco and the actual parent-child discussions about not using tobacco. These two measures were so highly correlated that only the results for reports of actual conversations were used. The intervention consisted of exposure to anti-tobacco information, and while parents in the intervention communities reported greater increases in tobacco-related communication with their children, they were not statistically significant\textsuperscript{94}. Differential reach of parent intervention strategies was offered as a possible explanation for the results and accessing parents more
directly via schools rather than using general community-based approaches was recommended. In the current study, the intervention was disseminated via schools and utilised children to recruit parents and may, to some extent, explain the more positive findings with regard to enhancing parent-child discussions about tobacco.

The results of this study regarding the recency and content of parent-child tobacco-related communication are consistent with those of the Keep a Clear Mind Project where home activities were disseminated to parents by their children\textsuperscript{62}. The Keep a Clear Mind findings were, however, limited by design issues including non-random recruitment, unreported instrument validity and reliability, and the impact of potential response-clustering was also not reported. Compared to those in the Comparison Group, parents in the Keep a Clear Mind Intervention Group reported more recent and greater frequency of drug-related discussions and significantly greater communication with their 4\textsuperscript{th}, 5\textsuperscript{th} and 6\textsuperscript{th} grade children about how to resist pressure to use tobacco\textsuperscript{62}. Results from the present study suggest enhancing parent-child tobacco-related communication via home-based parent-training interventions, the type of which has previously only been tested in the US, is both feasible and effective in an Australian context. Furthermore, linking such interventions to schools and disseminating information about what content to cover and how to communicate with children about cigarette smoking does not, until now, appear to have been tested in Australia.

As adequate dosage is critical to the effectiveness of interventions\textsuperscript{64}, it was monitored and used to assess the efficacy of the parent-training intervention of the present study. Significant strong dose-response effects from the intervention were evident. Parents who reported receiving the highest and middle dose of the intervention were more likely than those who reported the lowest dose to have talked about smoking cigarettes with their Year 6 child and to have done so in the previous two months. They were also significantly more likely to talk for a longer duration, to have reported higher rather than lower levels of engagement and to have talked about more of the specified tobacco topics.
There were no differences between the middle and highest intervention-dose categories for any of the tobacco-related dependent variables, suggesting that the highest dose may not be necessary to obtain an intervention effect for these variables.

This lack of significant difference between the middle and highest dose categories may be due to the middle dose being sufficient (ie, the dose threshold is reached). Alternatively, it may be an artefact of the conservative method used to convert the continuous dose data to categories. The lowest and highest possible continuous data scores were zero and 21 respectively. Of the Intervention-group parents who responded at the first follow-up (n=465, missing=70), the mean score for dose was 14.7 (with a standard deviation of 5.5) and a median of 15. These continuous data were categorised using cut-off points as close as possible to tertile separations and the subsequent three categories were labelled ‘lowest dose’ (less than or equal to 11), ‘middle dose’ (12-17), and ‘highest dose’ (18-21). Dosage is therefore expressed relative to other parents and is not necessarily an indication of the absolute dose (ie, normative rather than criterion based). Further, on the scale from which the dose categories were established, the cut-off point between the lowest and middle doses was 57% of the highest dose reported.

In the present study, dose response analyses were undertaken for each of the five parent-child tobacco-related communication variables. The dose of intervention necessary to enhance the recency, duration, extent of engagement and content of parent-child tobacco-related communication did not appear to be analysed in previous similar studies. Most report some measure of intervention dose but not dose-response analyses. Previous studies, therefore, provide little guidance on the question of what dose of intervention is necessary to enhance parent-child tobacco-related communication. For example, one evaluation of Triple P\(^{402}\) reported parents maintained treatment integrity if they had viewed eight of 12 video episodes. Most mothers in the intervention condition (24 of the 28) reported watching all 12 episodes and the remaining four had viewed at least eight of the 12\(^{402}\). The sample was very small and insufficient variation of the dose variable rendered dose-response analyses implausible.
The Western Australian evaluation of Triple P reported the maximum possible intervention dose was nine hours (four two-hour workshops and four 15-minute telephone follow-up contacts) and program exposure was recorded\textsuperscript{80}. Likewise in Project SixTeen\textsuperscript{24} and the Preparing for the Drug-Free Years Project\textsuperscript{105} levels of intervention exposure were reported but not it seems any subsequent evaluation of impact of dose on the dependent parent-child communication variables. Other similar studies\textsuperscript{62, 89} did not appear to measure parents’ exposure to the interventions.

Overall, these tobacco-related parent-child communication findings support rejecting the first null hypothesis at the first follow-up. That is, parents who participated in the educational intervention reported levels of parent-child tobacco-related communication that were different to that of those in the comparison condition (p<0.05).

*Alcohol-related Parent-child Communication*

In the overall domain of family management techniques, the quality of parent-child communication is reported to be a particularly salient factor in reducing alcohol-use problems among adolescents\textsuperscript{114, 287, 293, 337, 347}. The effect of a parent-directed intervention on five alcohol-related parent-child communication outcomes was assessed in the present study.

Significant clear differences were found between study conditions for all five alcohol-related dependent parent-child communication variables. Overall, intervention effects on the alcohol-related communication variables were greater than those evident for the tobacco-related outcomes. Like the tobacco-related intervention effects, there is a pattern of enhanced alcohol-related communication in Intervention-groups 1 and 2 compared to the Comparison Group, but in this case, almost all of the comparisons are statistically significant.

When the highest and middle dose categories were compared to the lowest dose category, significant dose-response effects in the anticipated direction were also evident. Like the tobacco-related communication results, there were no differences between the middle and highest intervention-dose categories for any of the alcohol-related variables. As proposed earlier, this finding suggests the highest dose may not
be necessary or sufficient to obtain a greater effect and/or it may be the result of the conservative way dose categories were assigned. What seems clear from the dose-response findings, however, is the existence of a minimum dosage requirement. The lowest dose of the intervention (less than or equal to 11 out of a possible 21 points) was insufficient to obtain the hypothesised alcohol-related communication behavioural changes.

Encouraging parents to talk regularly with their children about drugs is widely supported as an important protective parenting factor as are the strategies of having discussions rather than giving lectures and providing opportunities to increase children’s engagement in such communication. Parents in the Intervention Groups were between twice and three times as likely as those in the Comparison Group to have ever talked to their Year 6 child about drinking alcohol (Intv Gp 1 OR=2.9; Intv Gp 2 OR=2.6). Parents receiving the highest or middle intervention dose were more than three times more likely to have ever talked about drinking alcohol with their Year 6 children than parents in the lowest-dose group (Highest OR=3.6; Lowest OR=3.1).

In addition, parents in the Intervention Groups were three times more likely than parents in the Comparison Group to have talked more recently (in the last 2 months) about drinking alcohol with their Year 6 child (Intv Gp 1 OR=3.2; Intv Gp 2 OR=3.0). Those in the highest or middle intervention-dose categories were three times more likely to have done this than parents in the lowest dose categories alcohol (Highest dose OR=4.0, Middle dose OR=3.1).

 Longer discussions were reported by the Intervention-group parents (in each instance the odds ratios were larger than two) and parents in the highest or middle intervention-dose categories were consistently more likely than those in the lowest-dose category, to have talked with their Year 6 child (for any duration of time).

Prior to the logistic regression analyses, effect modification was investigated and any interaction effects between demographic characteristics and the dose variable were included in the final modelling for each parent-child communication variable. Hence, the likelihood of parents in the lowest dose category being different in other
ways (eg, age or education) from those in other dose categories, as an explanation of the above dose-response findings, was minimised.

These findings were consistent with that of other similar studies and provide some empirical evidence of the utility of interventions that are connected to schools, home-based and engage students in their dissemination. While the Keep a Clear Mind study had design limitations (summarised earlier), parents in the Intervention Group reported more recent and greater frequency of drug-related discussions and significantly greater communication with their 4th, 5th and 6th grade children about how to resist pressure to drink alcohol. The Keep a Clear Mind intervention was similar to the current study in that it was disseminated via schools and comprised four packages of five activities delivered to parents by their children.

A supportive nurturing relationship with at least one parent and family cohesiveness, are among the environmental factors reported to be protective of a range of hazardous and harmful adolescent behaviours including alcohol use. The quality in terms of the degree of openness and extent of parent-child engagement during drug-related parent-child communication is reported to be an important mechanism by which such protective relationships are established and maintained. In the present study, Intervention-group parents were more likely than Comparison-group parents, to report high engagement (versus no engagement), when discussing drinking with their children (Intv Gp 1 OR=1.9; Intv Gp 2 OR=3.5). In addition, those in the highest and middle intervention-dose categories were more likely than parents in the lowest, to report being engaged more with their children during such discussions (Highest OR=4.1; Middle OR=3.9).

The content of alcohol-related conversations, is also reported to be important component of parent-child communication. As expected, the parents in the two intervention groups were both twice as likely, as the Comparison-group parents, to have talked about one or more of the specified alcohol-related topics with their Year 6 children at follow-up (Intv Gp 1 OR=2.1 and Intv Gp 2 OR=2.0). These findings likely reflect the absence of any intervention being administered with the Comparison Group. A better assessment of the efficacy of the intervention would involve the administration of a similar but unrelated
intervention with the Comparison-group parents. The impact of a low versus no intervention could be then be examined.

While, the Year 6 Home Program component of Project Northlands (Slick Tracy) did not appear to report parent-child communication outcome data\textsuperscript{43, 83}, data were reported for the Year 7 ‘Amazing Alternatives’ home component\textsuperscript{101}. The findings of the present study were consistent with those of the Amazing Alternatives program where increased parent-child communication about the consequences of alcohol use were reported at the follow-up\textsuperscript{101}. For example, the Amazing Alternatives participants were significantly more likely than non-participants to report having discussions with their seventh grader about alcohol-related messages in the media (p=0.004); alcohol-related situations a seventh grader may face (p=0.001); and consequences the seventh grader would face if caught drinking (p=0.029)\textsuperscript{101}.

Project Northlands overall, reported successfully increasing parent-child communications about the consequences of drinking alcohol. However, the design and integration of the school, home and community intervention components, did not allow the testing of the unique contribution of the various components such as the parent intervention\textsuperscript{19, 237}. Furthermore, only 33% of eligible parents participated in the intervention\textsuperscript{101}. By contrast, the present study specifically assessed the impact of a parent-directed intervention and 56% (n=1483) of eligible parents provided data at the first follow-up.

In this study, parental SES emerged as a significant predictor of the duration of the most recent parent-child communication about drinking alcohol. Parents classified as low SES were more likely to talk with their Year 6 children for five to ten minutes than parents classified as high (and possibly medium) SES. This finding is difficult to explain because the comparisons in the other duration response categories were not significant and nor was SES a significant predictor of any of the remaining alcohol-related (or tobacco-related) parent-child communication variables. While the association between SES and the duration of the most recent alcohol-related parent-child communication seems weak, it may be interesting to investigate this further in future research utilising more accurate measures of SES such as income.
Comparing the above association with the findings of previous studies is not possible because, with one exception, demographic data related to parents' SES were either not reported or sufficient data from which to determine SES were not available\textsuperscript{62, 89, 101, 494}. The Preparing for the Drug Free Years Project\textsuperscript{105} did report recruiting parents from economically stressed locations, however, other than reporting no evidence of baseline differences in income or education levels, the impact of SES on the parent-child communication outcomes did not appear to be discussed.

In the present study, parents' self-reported main occupation also emerged as a significant demographic predictor for three of the five alcohol-related parent-child communication variables (i.e., ever talked, duration of last talk and number of specified alcohol topics). Parents with a non-professional main occupation\textsuperscript{514}, reported significantly different outcomes than parents in other occupational-group classifications. That is, they were less likely to have ever talked with their Year 6 child about drinking alcohol and less likely to be in a ‘talking’ category (i.e., they reported not having talked with their Year 6 children about drinking alcohol or couldn’t remember the duration of the last discussion). These findings were also difficult to compare with those of similar previous research as occupation was either not reported, the extent of its contribution to any composite variables unclear, or its impact on communication outcome variables not analysed\textsuperscript{62, 89, 101, 494}.

Parents' occupation was associated with the number of alcohol-related topics parents discussed with their children. Intervention-group parents whose occupation was classified as home duties were more likely to report talking about more of the three alcohol-related topics than parents whose occupation was classified as professional or non-professional. This finding may be related to the nature of home-duties as an occupation. That is, such parents may spend more time with children than parents with paid occupations and thus have greater opportunities to talk about the alcohol-related topics recommended in the intervention. Parents who undertake home duties may also have more time to read a home-based intervention.

Data related to how many of the specified alcohol topics the study sample reported discussing with their Year 6 children in the two months prior to the second follow-up data collection, indicated differences in the intended direction between study
conditions. While the response at the second follow-up was low, there was no evidence of significantly different differential attrition between study conditions. Irrespective of study condition, there was an increase in the percentage of parents who reported talking about the specified alcohol topics from none at the first follow-up, to at least one topic at the second follow-up. It seems if parents remained in the study, they talked about more of the three alcohol-related topics. The increase in the percentage of parents who reported talking about all three topics, however, was greater in the Intervention Groups compared to the Comparison Group suggesting a possible ‘sleeper’ effect.

Overall, these findings support rejecting the second null hypothesis. That is, parents who participated in the educational intervention reported levels of parent-child alcohol-related communication that were different to those in the comparison condition (p<0.05).

**Impact of Offering a Choice of Intervention on Parent-child Communication Outcomes**

Offering participants choice, and subsequently a sense of control over the content of health promotion interventions, has been suggested as a means to address the challenge of recruiting and retaining substantial numbers of the target group. Further, enabling and preserving people’s right to choose what is done in their community, has been claimed to be a condition that contributes to participants’ enjoyment and therefore the success of interventions.

Previous similar parent-directed intervention studies have included an element of choice, in that participation in the research is voluntary and/or participants can choose the language in which written information is provided. While the Project SixTeen study offered participating communities a menu of potential activities, the impact of offering this choice on parent recruitment and retention or on parent-child communication outcomes, was not published. Therefore, prior to the present study, offering parents a choice of intervention content did not appear to have been tested with parent-oriented interventions, or in a field such as drug-related parent-child communication.
As described in Chapter 5, the intervention consisted of five Information Sheets containing information and activities designed to assist parents to talk with their Year 6 child about issues related to smoking cigarettes and drinking alcohol. Seven information sheets were prepared and a careful auditing process was undertaken to ensure the content of each was different to the others but that the parent-child communication concepts and skills were equivalent. Parents in Intervention-group 1 were provided with an opportunity to choose which five of the seven Information Sheets they wanted to read.

Whether providing this choice had an impact on parent-child communication dependent variables was analysed. No significant differences were found between the communication data reported by parents in Intervention-group 1 (choice) and those in Intervention-group 2 (no choice), hence the third null hypothesis was accepted. That is, parents who are offered a choice of intervention content reported levels of communication about alcohol and tobacco with their Year 6 children that were no different to that reported by parents who were offered no choice of content.

**Impact of the Intervention on the Level of Agreement between the Responses of Parents and their Year 6 Children to Equivalent Communication Variables**

It appears that children’s perceptions, rather than parental reports of protective parenting factors, is an important influence on children’s attitudes towards and use of ATOD\(^1\textsuperscript{,}66, 124, 157, 197, 223, 225, 229, 231, 232, 291, 299, 300, 311, 319, 342, 343, 351\). In addition, previous research suggests there is substantial incongruence between parent and adolescent reports of parenting behaviours\(^1\textsuperscript{,}94, 114, 119, 124, 223, 300, 311, 343, 352, 356, 362\).

The findings of the present study, whereby the overall agreement between parents and their children to equivalent parent-child communication variables, at both baseline and first follow-up were low, were consistent with existing knowledge\(^\textsuperscript{124, 197, 229, 361}\). When comparing the extent of agreement between parent and child reports from baseline to the first follow-up, it increased slightly for most of the tobacco-related and the alcohol-related communication variables. Thus irrespective of study condition, there was an average increase in the level of agreement from the first to the second data collection period for both the tobacco- and the alcohol-related
variables. While these results likely reflect a testing effect, for the tobacco-related variables the increase in parent-child agreement in the Intervention Groups was slightly larger than that in the Comparison Group. The average increase in agreement between parents and children, however, was small (Intervention-group 1=4.4%, Intervention-group 2=1.5% and Comparison Group=0.8%).

With specific regard to the alcohol-related variables, the greatest increase in average parent-child agreement (5.3%) occurred in Intervention-group 1 (choice), with smaller increases (1.7%) in the Comparison Group and Intervention-group 2 (no choice) (0.3%). If the average increases were due to the impact of the intervention, then the increases in parent-child agreement in both Intervention Groups should have been greater than that of the Comparison Group. This, however, was not the case and suggests these findings reflect other factors such as testing effects.

The level of agreement between parent and student responses at the second follow-up could not be determined because student data were not collected.

The low levels of agreement between parent and child reports of the same parent-child communication variables found in this study, are consistent with previous cross-sectional research. These results also support the claim adolescents and their parents, often differ in their perceptions of how parenting is performed.

The empirical results of such comparisons are less clear because proportional agreement between parent and child reports of the parent communication variables was not reported in several previous empirical studies. In other studies it was not feasible to make these comparisons, as the children were too young. Project SixTeen did compare parent and child reports of tobacco-related communication and found them not correlated, but did not comment on this finding. The Project Northlands Year 7 Home Program (Amazing Alternatives) collected child and parent reports of parents’ communication behaviours but did not report the extent of parent and child agreement.
Overall, compared to their children, parents reported more desirable communication outcomes at both baseline and at the first follow-up. For example, they reported talking more recently, talking about more of the specified topics, talking for a longer duration, etc. The finding of low agreement between parent and child reports of the parent-child communication variables measured in the present study may reflect some social desirability bias by parents. Parents may have been inclined to report what they would have liked to be true, rather than what was actually the case. Alternatively or additionally, the low agreement may have also been a result of parents communicating with their children about ATOD issues in ways not registered by their children. While the content of the intervention was consistent with Social Cognitive Theory and the Communications for Persuasion Model and subjected to expert panel review, it might not have provided sufficient support regarding ways to initiate discussions with and fully engage children in parent-child communication. For example, the parenting skill of checking with the child to determine what the child heard the parent say, may not have been clear or sufficiently prominent in the intervention.

Whatever the reasons for differential reporting, parents and children in all study conditions showed only modest agreement and similar levels at baseline and first follow-up to equivalent communication items. The descriptive analysis conducted appeared to support the final null hypothesis that parents who participated in the educational intervention were not more likely than those who didn’t, to report measures of tobacco- and alcohol-related parent-child communication that were more similar to that reported by their children.

**Process Evaluation**

One of the most significant barriers to increasing the prevalence of protective parenting practices, is that many parents do not participate in parent training interventions. Therefore, inferences made from parent outcome data without process evaluation assessing dissemination and completeness of the intervention increases the risk of Type III error (erroneously attributing observed outcomes to the intervention).
The extent to which the intervention was disseminated to and read by Intervention-group parents was therefore an important component of this study (Chapter 5). These process data were collected during the intervention period and at the first follow-up. They were collected using multiple data sources and triangulated to maximise their validity.406

*The extent to which the parent-directed intervention was disseminated to, and implemented by parents and factors related to the dissemination and implementation of the intervention*

**Dissemination**

The intervention evaluated in this study was disseminated to parents via schools and involved five stages (Figure 3). The effectiveness of the first four stages was assessed. Throughout this process numerous strategies were employed to maximise dissemination of the intervention to parents. For example, consulting with parents during the development of the intervention; using children to hand-deliver the intervention to their parents; using communication and feedback process with the school; and using incentives to create a climate of enthusiasm among the children of the parent sample.

Dissemination effectiveness was assessed both during the intervention period and again at the first follow-up and found to be successful. For example, most teachers (91%) reported receiving the intervention materials from the researcher and most (83%) of these, reported distributing the intervention materials to their Year 6 students. The majority of students (95%) reported receiving the envelopes containing the parent intervention from their teacher and 94% reported giving each to the person to whom it was addressed. At the first follow-up, only one per cent of Intervention-group parents (seven parents) reported not receiving any of the intervention.

These findings are better than those reported in studies where parents attended a venue to receive the intervention. For example, one evaluation of The Preparing for the Drug Free Years Project103 reported an average parent attendance of at least three or more of the five parent training workshops of 78.5% (n=209). While this average is very good, the by-session attendance rates of mothers and fathers decreased
markedly as the intervention proceeded (mothers from 89% to 63% and fathers from 78% to 49%)\(^{103}\). Likewise, exposure of parents the Triple P intervention, where 73% of parents attended all four Triple P group sessions\(^{60}\) was slightly lower than that of the present study.

These findings were also slightly better than other studies where parents completed the intervention in their home. For example, 90% of families in The Year 6 Home Program of Project Northlands (Slick Tracy) were reported to have completed at least 25% of the four-part intervention and 75% completed most or all of it (defined as 3 or 4 booklets)\(^{100}\). The extent of dissemination of the intervention in this study also compares favourably with that reported for the Year 7 Home Program of Project Northlands (Amazing Alternatives) where the parent-oriented intervention was estimated to have reached between one third and one half of the cohort’s parents\(^{43}\).

The Amazing Alternatives parent intervention utilised a similar style to that of the present study (ie, able to be completed by parents at home), but was mailed to parents. It therefore had a high likelihood of reaching parents. As discussed earlier, the intervention of the current study was hand-delivered to parents by the Year 6 children. The utility of this delivery strategy is evidenced by the finding that it appeared to reach a very high proportion of parents (>99%), was less expensive than mailing and therefore probably more sustainable in real world conditions. Overall, the dissemination findings of the present study support those of others regarding the increased feasibility, acceptability and reach of interventions that are home-based compared to those requiring attendance at a venue\(^{43, 100, 402}\). While this may be true, it is unclear whether participation in a learning experience with other parents at a venue is more valuable for parents than home-based learning by themselves.

The intervention in the present study was based on Social Cognitive Theory\(^{203}\). As such, parents with a high self-efficacy regarding ATOD-related communication with their children will be more likely to do so if they also have positive outcome expectancies and possess the necessary knowledge and communication skills. Opportunities to rehearse and practise communication skills are reported to make successful performance more likely\(^{431}\) and venue-based training may therefore be
more conducive to enhancing parents’ communication skills than home-based interventions.

The content of the intervention of the present study was also based on The Health Belief Model, which suggests a decision to undertake a health action, such as participation in ATOD parent-training programs and subsequently talking with their adolescent children about ATODs, will not be made until the individual is psychologically ready\textsuperscript{434}. In the context of this research, before parents take action and communicate with their children about ATODs, they need to first appreciate and personalise the real possibility of their children using ATODs. They also must be sufficiently concerned about the potential resultant harm.

The extent of parents’ readiness to act and then actually, initiate ATOD-related communication with their children may also be enhanced by attendance at a seminar or workshop. Being with other parents who are concerned about children and drug-related harm, may heighten their perceptions of the vulnerability of their own children and thus increase the perceived threat (ie, the likelihood of their children experiencing ATOD-related harm)\textsuperscript{433, 435}.

With these theoretical possibilities in mind, parents who attend drug-related communication-skills training at a venue with other parents, might receive more in-depth and better quality training and a subsequently better dose than those who participate in home-based interventions. While this represents a fertile area for future investigation, it is clear that home-based parent-oriented interventions consistently report higher participation rates. Non-home-based parent training in the company of other parents, may be an inherently better educational strategy, however, if it doesn’t reach the majority of parents, much of the potential public health benefit may not be realised.

\textit{Implementation}

A common criticism of intervention research is the failure of investigators to adequately consider issues related to the completeness of program implementation\textsuperscript{257}. In the absence of such information, it is not possible to accurately assess the efficacy of a given intervention strategy\textsuperscript{257}. For example, one study concluded that a mailed
home, parent-directed intervention did not affect any of the dependent variables. However, because the extent of implementation was not measured, it was unclear whether the results were attributable to intervention failure or implementation failure.

Information regarding completeness of implementation is particularly important in studies, such as this one, where the program providers (schools/teachers) were not under the control of the investigator. To provide an indication of the extent to which Intervention-group parents implemented (ie, read) the intervention materials, a dose variable was computed from the follow-up data provided by parents. Based on how much of each of the five Information Sheets parents reported reading, a dose composite score (lowest dose, middle dose or highest dose) was established for each respondent. The reliability of the dose measure was examined (by comparing parents’ responses collected during the intervention period with their reposes to the same questions at the first follow-up). There was high consistency between the parents’ responses after both the short time interval and the longer time interval (average 82% agreement). Further, the overall proportion of parents who reported not remembering receiving a specific Information Sheet when it was disseminated to them was low. There were, however, slight differences with the Purple and Pink Information Sheets as, these two were less well remembered than the others were. It may be that the colours (pink and purple), were too similar for parents to be able to differentiate between them, especially after time had elapsed.

The findings that the majority of Intervention-group parents liked all or most of the intervention materials, found them useful and relevant, and would recommend them to other parents, was consistent with previous parent-directed educational interventions where process data were reported. Likewise, the finding that the most popular use of the intervention materials was to either remind them or to help them to talk with their children about drugs, was both positive and consistent with the findings of one previous study.

As a component of Diffusion of Social Innovations Theory, the role of teacher receptivity in the effective dissemination of health-related programs has been extensively studied, with several factors being identified as important prerequisites underpinning teachers’ engagement in such programs. For example, feeling
adequately prepared\textsuperscript{125, 533}, perceiving the health issue and the intervention to be important\textsuperscript{534} and feeling comfortable about implementation\textsuperscript{513, 534, 535}. Process data collected from teachers indicates that those who were involved in the present study, perceived ATOD use to be a very important contemporary health issue and considered the provision of parent-training essential. In addition, teachers were adequately prepared by the researcher and knew what to do in terms of disseminating the parent-training intervention. They also reported very high satisfaction with the dissemination process and would be happy to repeat the project. These findings were consistent with those of previous parent-training interventions where teachers played a key role in dissemination\textsuperscript{62}.

7.5 Conclusions
Accessing parents with communication-related drug-education training is challenging as many barriers inhibit participation. Collectively they include the nature and location of the intervention; parent perceptions of intervention-related time and scheduling demands and conflicts; logistical issues such as transportation and child-care; work commitments; other family commitments; family privacy issues; health problems; lack of family support; fear of stigmatisation; and the financial costs of programs\textsuperscript{74, 75, 77, 78, 84, 85, 87, 88, 90, 100, 387, 409, 410, 429}.

The findings of this Western Australian study support the conclusion that parents of 10-11 year-old children are receptive to participating in a home-based drug-related educational intervention. The high baseline response rate (81\%) obtained in this study support this conclusion. Furthermore, only 39 parents (2.6\%) withdrew their consent and when this result is combined with the 12\% attrition between the baseline and the first follow-up data collection points, additional weight is added to this conclusion.

As well as recruiting and retaining parents, the learn-at-home drug-related educational intervention implemented in this study had a significant impact on their self-reported drug-related communication behaviour with their Year 6 children. The findings of this study support rejecting two of the four null hypotheses because parents who participated in the educational intervention reported levels of parent-
child tobacco-related and alcohol-related communication that were different (ie, better) to those parents who did not participate.

Despite evidence suggesting that enabling and preserving a person’s right to choose what they do contributes to the success of interventions, and the application of Choice Theory in this research\(^{91-95, 436, 437}\), this strategy did not appear to impact on the parent-child communication outcomes of this study. The null hypothesis was accepted because parents who were offered a choice of intervention content reported levels of communication about alcohol and tobacco with their Year 6 children that were not different to that reported by parents who were offered no choice of content.

Previous research suggests there is substantial incongruence between parent and adolescent reports of parenting behaviours\(^{1, 94, 114, 119, 124, 223, 300, 311, 343, 352, 356, 362}\). Hence one hypothesis of the present study investigated the impact of the intervention on the extent of parent-child agreement to equivalent communication variables. The results suggest that parents who participated in the educational intervention were not more likely than those who didn’t participate, to report measures of tobacco- and alcohol-related parent-child communication that were the same as those reported by their children. The null hypothesis was therefore accepted.

Adequate dosage is critical to the effectiveness of interventions\(^{94}\) and measuring it minimises the likelihood of Type III error. The extent to which the dose of the intervention impacted on parent-child dependent communication variables was analysed and strong dose relationships were identified especially for the alcohol-related communication variables.

Overall, previous studies have reported positive changes in the way parents communicate with their children\(^{99, 105, 462}\) and parenting practices known to be protective of hazardous and harmful ATOD-use have been strengthened. The findings of the present study expand on previous work and suggest home-based interventions can also impact positively on drug-related parent-child communication (ie, frequency, recency, extent of engagement and specific content discussed).
7.6 Recommendations

Several recommendations emerge from the findings of the current study. They are discussed in the following section and pertain to the status of parent-directed drug-related communication intervention research in Australia, the parent training ‘research-practice gap’, and study design improvements.

Status of Research in Australia

Given the prevalence of drug-related problems in Australia and the recognised role parents can play in the primary prevention of such harm, increased public health attention to parental needs and education is warranted. Much is already known about what information and parenting skills to target. For example, the focus of parent-directed drug education interventions should be on strengthening families and optimising parenting skills that are reported to be protective of hazardous drug use by children\textsuperscript{102, 287, 412}. There still appears, however, to be few published evaluations of Australian parent-directed drug education programs\textsuperscript{90, 402}. Further investigation of drug-related parent-training interventions in the Australian context are warranted. Only one published empirical-evaluation of an Australian drug-related parent-child communication intervention\textsuperscript{90} was identified during this study. Overall, it seems the optimal content of drug-related parent-child communication interventions is well understood by researchers, but the knowledge about effective delivery processes is less clear.

With regard to barriers that inhibit the effectiveness of parent training, some progress has been made particularly in the US, about ways to improve the recruitment and retention of parents. The utilisation of flexible delivery mechanisms is a particularly salient factor that has enabled this progress. There are examples of interventions where parents attend a venue to receive training\textsuperscript{105}, but the use of other methods of training such as home-based programs are widely recognised as more effective recruitment and retention strategies\textsuperscript{29, 31, 43, 62, 75, 77, 83, 85, 100, 101, 271, 385, 399, 476}. Examples of more flexible approaches include, disseminating printed material to parents via direct mailing\textsuperscript{101} or via their child from school\textsuperscript{62, 83}, utilising the mass media via video presentations\textsuperscript{82} and the potential utilisation of the Internet\textsuperscript{492}. It therefore seems that promising non-traditional delivery mechanisms of parent-child communication interventions about ATODs should be further tested in the Australian context.
The potential economic and social benefits to the community of drug-related educational interventions targeting parenting skills are also well known\textsuperscript{16-18}. In addition, the support of training for parents as an important form of primary prevention is documented in numerous national and international policies\textsuperscript{21, 118, 188, 247, 249, 251-254, 294, 296}, and as explained earlier, promising methods of doing so have been accumulating, particularly in the United States\textsuperscript{101, 105}. The present study demonstrated it is both feasible and effective to recruit and engage parents in the drug education of their pre-adolescent children in an Australian context. That is, parents who received the intervention reported increases and positive changes in discussing alcohol and tobacco use with their children.

\textit{The 'Research-Practice Gap'}

While parents represent a major community resource with whom public health practitioners should be working in partnership\textsuperscript{102}, they are reported to be under-utilised\textsuperscript{98, 111}, particularly in Australia\textsuperscript{62}. In the interests of helping parents to make a difference in the lives of their children by enhancing their drug-related parent-child communication and other protective parenting skills, the findings of the present study require dissemination to relevant practitioners.

A dissemination strategy is needed to reduce the gap between what science suggests is best practise for parent training projects and how parent education programs are implemented by practitioners. For example, consultation with parents prior to program development and the use of non-traditional and flexible delivery modes should be common-place, rather than innovative strategies in the parent-training field.

Facilitating this transfer of best practise in parent training from the empirical research arena into public health practice is widely supported\textsuperscript{111, 125, 430, 487}. To identify the most effective ways to ensure evidence-based parent-directed education interventions are widely adopted by practitioners, additional Australian dissemination research may be required. This recommendation echoes that of previous research in this field\textsuperscript{42, 52, 90, 173, 412, 536}. 

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These findings should also be disseminated to funding agencies (for example, The Western Australian Health Promotion Foundation and the Western Australian School Drug Education Project). In the interests of providing quality parent training initiatives, such agencies should be encouraged to support only those parent education strategies that are evidence-based. For example, those offering flexibility of format, alternative delivery methods and connections with schools.

Further support for action to reduce the ‘research-practice gap’ comes from understanding effective parenting skills are protective of a wide range of potentially harmful teenage behaviours\(^{165, 241}\). While it might be difficult to justify the cost of a parent-training intervention designed to reduce a single hazardous behaviour, it becomes more cost-effective to disseminate an intervention if it affects a range of risk behaviours\(^{34}\).

The dissemination of efficacious universal parent training interventions will likely be facilitated by better evidence about their costs and benefits\(^{173}\). In the US parenting skills training has been reported to be a far less expensive method of preventing crime than incarceration\(^{173}\). This issue warrants further investigation in the Australian context.

**Study Design Improvements**

The results of the present study provide insights that may be useful in designing future Australian parent-directed health-related educational interventions. There are, however, several ways the design and implementation of the present study could be strengthened.

The first improvement relates to the study duration. That this study found significant direct effects of the intervention on parent-child communication is positive because of its relatively short duration. This study was longitudinal in that it followed the same parents over time, but the extent to which the effects may be sustained or decay over a longer period, is not known. Replicating this study with a longer period of follow-up would address this issue.
Another modification of the study design relates to the sustainability of the process used to disseminate the intervention to parents. The researcher was a key player in the delivery of the intervention and the intensity of effort required would not likely be sustainable in real-world conditions. Using other more sustainable non-traditional methods of delivery such as the World Wide Web, audio-visual resources or community service announcements for use in the mass media are potential alternatives to the nature of the intervention disseminated in the present study.

If the present study were to be repeated, consideration should be given to the nature of the intervention. One of the most enduring findings of health-related behavioural research is that multiple approaches are the most likely to bring about sustained change. This study, however, evaluated the impact of a single strategy (ie, parent training). To be consistent with both the Health Promoting School Framework and the recommendations of previous similar research, parent training should be incorporated into a long term multi-component community- and school-based drug education strategy.

For financial and logistical reasons it was not feasible in the present study to administer Comparison-group parents a similar but unrelated intervention. In any replication of this study a better assessment of the efficacy of the intervention disseminated would involve the administration of such an intervention with the Comparison-group parents so the impact of a low versus no intervention could be examined.

Three study design modifications relate to the nature of the data collected. The ultimate goal of drug-related parent educational interventions is to reduce the prevalence of hazardous and harmful alcohol and/or other drug-use among adolescents. With this in mind the present study could be redesigned to investigate whether parental participation in the intervention delays initiation, lowers the prevalence of adolescent ATOD use, and/or reduces the risk of and actual drug-related harm experienced by their children.

The second data-related amendment is to re-orient the data analyses objectives. There is substantial agreement that children’s perceptions of parenting behaviours
are more closely associated with their ATOD-use outcomes than are parent reports of parenting\textsuperscript{1, 60, 124, 157, 197, 223, 225, 229, 231, 232, 291, 299, 300, 311, 319, 342, 343, 341}. When this information is combined with the findings of the present study, whereby low levels of agreement were found between parent and child reports of parent-child communication behaviour, analysing child reports (rather than parent reports) of the parent-child communication outcomes would seem a more appropriate investigation. Further, from a research validity viewpoint, child self-reports of parenting behaviours are reported to be somewhat immune to parent intervention-related social desirability bias\textsuperscript{342}.

The final data-related amendment also relates to evidence suggesting children's rather than the parents' perception of parenting behaviours is most closely associated with children's ATOD-use outcomes\textsuperscript{311, 343}. Data regarding the extent to which parents understand how children perceived their drug-related communication would provide useful information. It would help to clarify if the low agreement found in the present study, between parent and child responses to equivalent communication items, was due to socially desirable reporting by parents or that parents did communicate but not in ways that were meaningful to their children.

Perhaps the most important insight from the Exploratory Study and the subsequent Randomised Comparison Trial that comprised this research, is that while reaching parents is challenging, it can also if accompanied with some innovative planning, be feasible and efficacious in terms of enhancing parent-child drug-related communication. Effective parent-training interventions provide a means to mobilise parents, who represent a large percentage of the population and have a very personal stake in youth drug education, to work at a grassroots level to reduce hazardous and harmful use of alcohol, tobacco and other drugs. In the longer term, such initiatives have the potential to reduce the economic and social burdens placed on the Australian community by the harm associated with alcohol and other drug use.
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References


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Appendix 1

Exploratory Study: Questionnaire
PARENT DRUG EDUCATION PROJECT
QUESTIONNAIRE

1. Parents and Drugs

When you hear the word 'drugs' what do you think of?

________________________________________

________________________________________

________________________________________

________________________________________

________________________________________


PLEASE STOP HERE AND WAIT FOR A DISCUSSION
Drug Education Programs to Help Parents Talk to Children About Drugs

2a How would you prefer to learn about alcohol, tobacco and other drugs? (Make three choices from the list below. Number your selections from 1 to 3 where 1 represents the method you like best)

- Attend a three-hour parents' night at school.
- Attend a three-hour parents' morning at school.
- Attend a three-hour workshop on the weekend.
- Attend a three-hour course at a community centre (that is, away from the school).
- Learn at home. For example, by helping children with homework, parents learn at the same time.
- Learn at home doing activities that are especially designed for parents to complete on their own.
- Read pamphlets sent by the Government.
- Watch short advertisements on television.
- Other (please describe).

PLEASE STOP HERE AND WAIT FOR A DISCUSSION
2b If you were to participate in a drug education program where you didn’t have to leave home, approximately how much time do you think you would spend over a 5-week period? (Tick one box only)

- No time
- Between 5 and 10 minutes each week
- Between 10 and 20 minutes each week
- Between 20 and 30 minutes each week
- Between 30 and 40 minutes each week
- Between 40 and 50 minutes each week
- More than 50 minutes each week

2c If you were to participate in a drug education program where you didn’t have to leave home, how often would you like to receive the materials? (Tick one box only)

- Once a week for 5 weeks
- Once a fortnight for 10 weeks
  (The same information and activities but over a longer time period)
- Other (please explain)
2d  When would be the best time to send drug education materials home to you?  
    (Tick one box only)

    During the school term.        ☐

    During the school holidays.  
    For example, in the break after term one. ☐

    During the school term, break over the 
    school holidays and continue next term. ☐

    Some during the school term and some during the 
    school holidays. ☐

    During the Summer holiday break. ☐

    Other (please explain). ☐

PLEASE STOP HERE AND WAIT FOR A DISCUSSION
2e. If you were running a drug education project for parents that consisted of learn-at-home activities, what would you do to encourage parents to get involved? Try to list three things.

Why do you think these would encourage parents?

2f. What things would you do to encourage parents to finish the whole program? Try to list three things.
2g What do you think might discourage or prevent parents from getting involved in your drug education project?

What could be done to overcome these problems?

PLEASE STOP HERE AND WAIT FOR A DISCUSSION
2h What things might discourage or prevent fathers from being involved in a drug education for parents project? (Remember the materials would be taken home by the Year 6 student and could be completed at home at a convenient time.) Tick as many as you like.

Work commitments prevent the father from being involved. □

Fathers don’t realise how important it is for them to be involved. □

Father is absent. For example, a single parent family. □

Fathers are less interested than mothers. □

The mother attends to school matters. □

Others (please explain) □

2i What strategies can you suggest to involve more fathers in a drug education project where the activities can be done at home?

________________________________________________________

________________________________________________________

________________________________________________________

________________________________________________________

PLEASE STOP HERE AND WAIT FOR A DISCUSSION
2j Which of the following topics would you like to see included in a program to help parents communicate more easily with children about drugs? (Number all of the boxes below where 1 represents your most preferred option, 2 represents the next best choice, etc)

Facts about medicines

Facts about tobacco.

Facts about alcohol.

Facts about marijuana.

Facts about other illegal drugs.

Ways to increase parents' confidence to be able to talk with their children about drugs.

Ideas on how to talk with children about drugs.

Information about how parents can influence the decisions children make about drug use.

Other topics or information (please explain).
If you were involved in a parent drug education program, how would you like the decisions to be made regarding what information parents would learn about? (Tick one box only)

The people running the program provide parents with a list of topics from which parents can select what they want.

The people running the project make the decisions and all parents get the same information.

Other (please explain).
Which of the following types of activities would you like to see included in a drug education program for parents? Remember the purpose of the program is to educate parents. (Tick as many as you like)

Things for parents to read by themselves.

Things for parents to read with their child. For example, stories.

Things to read with some questions to answer.

Quizzes and games.

Stories showing how other parents talked with their child about drugs.

Crosswords.

Activities parents can do by themselves.

Activities parents can do with their child.

Other activities (please describe).

____________________________________

____________________________________

____________________________________

PLEASE STOP HERE AND WAIT FOR A DISCUSSION
3. Information about you

Please complete the following details about yourself. The information you provide will be used for planning purposes and is strictly confidential. These two pages of this questionnaire will be removed and stored separately from the remainder of the questionnaire.

3a. What is your age? (Tick one box only)

- less than 25 years
- 25-29 years
- 30-34 years
- 35-39 years
- 40-44 years
- 45-49 years
- 50-54 years
- 55-59 years
- 60+ years

3b. What is your gender? (Tick one box only)

- Male
- Female

3c. What is the relationship between you and your child in Year 6? (Tick one box only)

- I am his/her mother
- Father
- Step mother
- Step father
- Other

(please describe)
3d Including your child in Year 6, how many children do you have in your immediate family? (Tick one box only)

One... Two...
Three... Four... Five...
More than 5 (please write how many)...

3e Please record the initials and age of all of your children in the boxes below

<table>
<thead>
<tr>
<th>Child’s initials</th>
<th>Age in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg</td>
<td>MB</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

3f What is your highest level of education? (Tick one box only)

Completed primary school
Completed Year10 at secondary school
Completed Year12 at secondary school
Completed a qualification at TAFE
Completed a qualification at university
Other (Please describe)

3g What is your post code?

Thank you for providing your time and opinions.
If you would like more information about this project please contact Shelley Beatty at the Centre for Health Promotion Research at Curtin University on telephone 92662752 or e-mail beattys@health.curtin.edu.au
Appendix 2

Exploratory Study:
Discussion Group Protocol
Parent Drug Education Project
Discussion Group

Consent

Dear Parent

The Centre for Health Promotion Research at Curtin University is conducting research in the area of drug education for parents. The aim of this study is to identify ways to help parents feel more comfortable and confident about discussing drug issues with their children. Your child’s school has agreed to participate in this study and the Human Research Ethics Committee at Curtin University has given approval for this research to proceed (Approval Number HR191/97).

Thank you for attending this discussion group. The information you provide will remain strictly confidential. Your participation in this study is completely voluntary and you have the right to withdraw at any time without prejudice.

Please complete the information below and sign to indicate that you have agreed to participate in this research.

Yours sincerely

[Signature]
Shelley Beatty (MPH)
Project Coordinator
Parent Drug Education Project

I have read the information above and give my consent to participate in this research.

Name: ________________________________

Signature: ________________________________

Date: ________________________________
PROTOCOL FOR PARENT CONSULTATION

ORGANISATION

Venue: Primary School from where parents are recruited.
Duration: Two hours (maximum).
Group size: 8-10 parents (male and female)
Number of groups: Minimum of 3
Group facilitator: Shelley Beatty

Independent trained observer present to monitor process for internal validity (provides brief notes and comments on process aspects of the session).

INTRODUCTION AND BACKGROUND

1. Welcome

2. Completion and collection of consent forms

3. Icebreaker/introductions

   Hand around an object (micro cassette player) and ask group members to introduce themselves and then to be creative and suggest uses for this object other than what it was intended for. For example, I'm Shelley and I think this could be used as a solar panel for a hot water system.

   At the completion of the icebreaker encourage participants to be creative and use their imagination during the course of this meeting.

4. Background and purpose of the meeting

Thank you for coming.

Raising children can be very rewarding and at the same time be very challenging. Protecting children from being hurt is one of those challenges. Naturally most parents want to protect their children from the harm caused by drug use.

I am developing a drug education program for parents of Year 6 children to help parents learn about how to deal more effectively with this issue. The program I am developing is not for children.

While I will be using the term parents, I am aware that in a lot of families this role is undertaken by other relatives. It’s great to have you all here and please feel free to respond in your role as an important person in the child’s life.

This is one of several meetings being held with parents of Year 6 children to collect their opinions about what this drug education program for parents should look like and what it should cover.
Your input is really important.

Are there are questions or comments at this stage?

5. **Ground rules**

- The information collected from this meeting will be treated confidentially - you will not be identified in any reports or other documents.

- Say what you think - all opinions are welcome but be nice to each other.

- With your permission the meeting will be taped so no information is missed or lost.

- While some priorities will be established, no ideas will be thrown out.

- There will be some periods of writing on your own, and some time involved in group discussion and prioritising of your opinions. This means that you will be asked to discuss your answers with the group.

- Protective interrupting.
  Sometimes discussing the topic of drugs can raise personal issues. While I am happy to listen to what you have to say about your personal issues and experiences this can sometimes become too emotional for the person who tells their experience or for others in the group. For these reasons I will stop any discussion that becomes too personal. I will interrupt not because I don’t want to hear but because such information is probably better being kept private. I am happy to speak privately with anyone afterwards.

- Are there any questions or comments at this stage?

6. **Could I have your permission to turn the tape on?**
   Start the tape

---

**PROTOCOL FOR QUESTIONS AND GROUP DISCUSSION**

7. **Please complete question 1 and then stop**

1 **Parents and Drugs**

   When you hear the word ‘drugs’ what do you think of?
Group Process 1

- Briefly discuss question 1
- Explain that this project covers all mood altering drugs including medicines, tobacco, alcohol and other drugs such as cannabis, etc.
- Try to be specific and say what drug you mean.
- Also remember that this project is aimed at educating parents not children.

8. Please complete question 2 a and then stop
Drug Education Programs to Help Parents Talk to Children About Drugs

2a How would you prefer to learn about alcohol, tobacco and other drugs? (Make three choices from the list below. Number your selections from 1 to 3 where 1 represents the method you like best)

- Attend a three-hour parents’ night at school. □
- Attend a three-hour parents’ morning at school. □
- Attend a three-hour workshop on the weekend. □
- Attend a three-hour course at a community centre (that is, away from the school) □
- Learn at home. For example, by helping children with homework, parents learn at the same time. □
- Learn at home doing activities that are especially designed for parents to complete on their own. □
- Read pamphlets sent by the Government. □
- Watch short advertisements on television. □
- Other (please describe). □

Group Process 2
- Briefly discuss question 2a
- Explain that there are a number of ways to provide education for parents. Some of which are cost prohibitive - we can’t afford them. For example, videos are too expensive
- We can afford to make learn at home materials. For example, 2-4 page booklets.
- Further, a problem with attending parent nights/meetings is that very few parents turn up.
- My project will likely consist of thin booklets that will be taken home to parents by their Year 6 child.
- The next questions seek your opinions about this method.
- Remember that I am aiming to educate the parents - not the children
9. Please complete questions 2b, c and d and then stop

2b If you were to participate in a drug education program where you didn’t have to leave home, approximately how much time do you think you would spend over a 5-week period? (Tick one box only)

- No time
- Between 5 and 10 minutes each week
- Between 10 and 20 minutes each week
- Between 20 and 30 minutes each week
- Between 30 and 40 minutes each week
- Between 40 and 50 minutes each week
- More than 50 minutes each week

2c If you were to participate in a drug education program where you didn’t have to leave home, how often would you like to receive the materials? (Tick one box only)

- Once a week for 5 weeks
- Once a fortnight for 10 weeks (The same information and activities but over a longer time period)
- Other (please explain)
2d When would be the best time to send drug education materials home to you? (Tick one box only)

- During the school term. [ ]
- During the school holidays. For example, in the break after term one. [ ]
- During the school term, break over the school holidays and continue next term. [ ]
- Some during the school term and some during the school holidays. [ ]
- During the Summer holiday break. [ ]
- Other (please explain). [ ]

Group Process 3
• Briefly discuss 2b, c and d

10. Many education programs that are made for parents have not consulted parents and asked parents what they want and how the program should run.

A really important aspect of my project is to conduct these meetings with parents and ask them these questions. So this is your opportunity to have a say in what my final program for parents is like.

With this in mind, I’d like you now to be creative and imagine that you are organising a drug education program for parents who have a child who is almost a teenager.

In previous groups when we have asked other parents this question it often floors them and they think “I’ve got no idea”. But when they sit and think about it they have come up with some really good suggestions.

With this in mind please complete question 2e, f and g and then stop.
2e If you were running a drug education project for parents that consisted of learn-at-home activities, what would you do to encourage parents to get involved? Try to list three things.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Why do you think these would encourage parents?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

2f. What things would you do to encourage parents to finish the whole program? Try to list three things.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

2g What do you think might discourage or prevent parents from getting involved in your drug education project?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
What could be done to overcome these problems?


Group Process 4

- Write responses to 2e (part one only) onto cards, display cards, clarify any responses, cluster responses and dot vote (with three coloured dots)

- Discuss responses to 2e part 2.

- Write responses to 2f onto cards, display cards, clarify any responses, cluster responses and dot vote. Write responses to 2g onto cards, display cards, clarify any responses, cluster responses and dot vote

- Discuss responses to 2g.

11. Parent education programs are often attended mainly by mothers. I am very interested in your comments about why this happens and how to encourage fathers to participate. Please complete question 2h and i
2h. What things might discourage or prevent fathers from being involved in a drug education for parents project? (Remember the materials would be taken home by the Year 6 student and could be completed at home at a convenient time.) Tick as many as you like.

- Work commitments prevent the father from being involved. [ ]
- Fathers don’t realise how important it is for them to be involved. [ ]
- Father is absent. For example, a single parent family. [ ]
- Fathers are less interested than mothers. [ ]
- The mother attends to school matters. [ ]
- Others (please explain) [ ]


2i. What strategies can you suggest to involve more fathers in a drug education project where the activities can be done at home?


Group Process 5
- Discuss responses to questions 2h.
- Write responses to 2i onto cards, display cards, clarify any responses, cluster responses and dot vote.
12. The next questions ask your opinion and what parents should learn about. Please complete 2j, k and l.
2j Which of the following topics would you like to see included in a program to help parents communicate more easily with children about drugs? (Number all of the boxes below where 1 represents your most preferred option, 2 represents the next best choice, etc)

- Facts about medicines. □
- Facts about tobacco. □
- Facts about alcohol. □
- Facts about marijuana. □
- Facts about other illegal drugs. □
- Ways to increase parents' confidence to be able to talk with their children about drugs. □
- Ideas on how to talk with children about drugs. □
- Information about how parents can influence the decisions children make about drug use. □
- Other topics or information (please explain). □

2k If you were involved in a parent drug education program, how would you like the decisions to be made regarding what information parents would learn about? (Tick one box only)

- The people running the program provide parents with a list of topics from which parents can select what they want. □
- The people running the project make the decisions and all parents get the same information. □
- Other (please explain). □
21 Which of the following types of activities would you like to see included in a drug education program for parents? Remember the purpose of the program is to educate parents. (Tick as many as you like)

- Things for parents to read by themselves.
- Things for parents to read with their child. For example, stories.
- Things to read with some questions to answer.
- Quizzes and games.
- Stories showing how other parents talked with their child about drugs.
- Crosswords.
- Activities parents can do by themselves.
- Activities parents can do with their child.
- Other activities (please describe).

---

Group Process 6
- Discuss responses to questions 2j, k and l and then stop for a discussion

13. Please complete all of question 3.
3. Information about you

Please complete the following details about yourself. The information you provide will be used for planning purposes and is strictly confidential. The last two pages of this questionnaire will be removed and stored separately from the remainder of the questionnaire.

3a What is your age? (Tick one box only)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 25 yrs</td>
<td></td>
</tr>
<tr>
<td>25-29 yrs</td>
<td></td>
</tr>
<tr>
<td>30-34 yrs</td>
<td></td>
</tr>
<tr>
<td>35-39 yrs</td>
<td></td>
</tr>
<tr>
<td>40-44 yrs</td>
<td></td>
</tr>
<tr>
<td>45-49 yrs</td>
<td></td>
</tr>
<tr>
<td>50-54 yrs</td>
<td></td>
</tr>
<tr>
<td>55-59 yrs</td>
<td></td>
</tr>
<tr>
<td>60+ yrs</td>
<td></td>
</tr>
</tbody>
</table>

3b What is your gender? (Tick one box only)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
</tbody>
</table>
3c What is the relationship between you and your child in Year 6?
(Tick one box only)

I am his/her
Mother ..................... □
Father ..................... □
Step mother ............. □
Step father ............... □
Other ...................... □
(please describe)

3d Including your child in Year 6, how many children do you have in your immediate family? (Tick one box only)

One..... □ Two..... □
Three.. □ Four.... □ Five.... □

More than 5 (please write how many) .............. □

3e Please record the initials and age of all of your children in the boxes below

<table>
<thead>
<tr>
<th>Child's initials</th>
<th>Age in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg</td>
<td>MB</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>


3f What is your highest level of education?
(Tick one box only)

Completed primary school................................. ☐
Completed Year10 at secondary school.................... ☐
Completed Year12 at secondary school.................... ☐
Completed a qualification at TAFE......................... ☐
Completed a qualification at university degree........... ☐
Other (Please describe).................................... ☐

______________________________

3g What is your post code? ☐ ☐ ☐ ☐

Group Process 7
• no processing of question 3 (demographic information)
• Ask if there are any questions or comments at this stage.
14. Thank you for participating.

Distribute incentives.

Provide my contact details (handout business cards)

Ask if anyone is interested in providing feedback on the project as it develops? (Questionnaires, project materials)

Explain that this school will not be included in the study because you have already participated and this could contaminate the results.

Serve refreshments
Children and drugs: Parents' opinions makes a difference.

What parents say about drugs is important

What parents believe and say to their children about drug use has an important influence on children's decisions about using drugs. This includes cigarettes and alcohol. It is important for children to listen to and talk about their parents' opinions.

Often parents think there is no need to talk to their children about cigarettes and alcohol because these are not really drugs or are not the most dangerous drugs. In reality, regular use of cigarettes causes the most drug-related deaths in Australia every year. For young people, the drug that is associated with the most deaths is alcohol.

Timing is everything

Sometimes parents do not talk to their primary school-aged children because they think it is not an issue at this age or that talking about it will make the children curious. Year 6 is not too early for parents to talk about cigarettes and alcohol with their children and talking with them will not increase their curiosity.

If you have already been talking with your children about this—well done. However, keep raising the topic at regular intervals.

This pamphlet covers some things parents can do if they don’t want their children to smoke cigarettes or drink alcohol in harmful ways.

Aktion:
Make your views on cigarette smoking by children clear.

It is very important to try to talk regularly with your children about cigarettes. Discuss what you think about children who smoke cigarettes and remember to ask your children's opinion about children who smoke. It is also important to check to see if your children have understood your opinions. Try to have discussions rather than give lectures. Asking for, listening to and talking about your children's opinions helps to make it more like a discussion.

It is important that parents who smoke cigarettes (or drink alcohol) and who don't want their children to do the same (especially while they are still children) explain their views to their children too.
Take a few minutes now to answer the following questions. These questions will help you to plan a discussion on smoking with your children.

1. What is your opinion about children who smoke cigarettes?

2. What could you say to begin a discussion on this topic with your Year 6 child?

(You could begin a sentence with: “You have to make up your own mind about smoking, but I think smoking by children is…”)

3. What could you say to find out your child’s opinion about children who smoke?

(You could begin a sentence with: “What do you think about children who smoke?”)

4. What could you say to see if your child knows what you think about smoking?

(You could ask: ‘What do you think I would say if someone your age tried a cigarette?)

5. How could you help your child to understand that most children (and adults) do not smoke?

(You could begin a sentence with: “I read the other day that about 75% of people in WA do not smoke – does this sound right?”)
Some families permit children to have sips of alcohol with the family while others do not. In families where children are permitted small amounts of alcohol, it is important to discuss the difference between drinking alcohol in low risk ways (e.g., sips with the family) and drinking alcohol in harmful ways (e.g., without adult supervision or getting drunk).

Whatever your views on alcohol use, it is important that your children know what you think and why. Take a few minutes now to answer the following questions.

Have you talked with your children about alcohol in general?
Have you talked with your children about how you feel about children who drink alcohol?
Have you asked for your children’s opinions about children who drink alcohol?
Have you talked with your children about the differences between drinking alcohol in low risk ways and drinking alcohol in harmful ways?
Have you checked to see if your children can report to you your views on alcohol?

The real challenge is to see if you can put these questions into practise. Sometime in the next few days try to discuss your opinions about cigarettes and alcohol with your Year 6 child.

Another way to protect children from drug-related harm is to set clear guidelines or rules about drugs (including cigarettes and alcohol). These should then be consistently enforced. Adolescence is a time of many changes. Having rules can provide guidelines and stability for a child during what can be a very confusing time. Setting limits helps children to understand right and wrong. It also helps guide their behaviour. If children know what their parents expect, it lets them know where they stand and what they are allowed to do. It also teaches them that their actions have consequences. These rules could be created jointly with your children. While this takes longer, the limits developed are often more effective because the children have a sense of ownership.
Parents may have different rules and limits for different aged children in the family. However, it is important they don't change from day to day. It has been shown that children are much happier and well adjusted when they know parents’ rules and standards. Making it clear that the family has rules about drug use can help children make safer decisions about drugs. Try the following quiz:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>Not yet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussed with your Year 6 child what you want him or her to do with regard to smoking cigarettes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed with your Year 6 child what you want him or her to do with regard to drinking alcohol?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set rules or limits about cigarettes and alcohol for your Year 6 child to follow?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained the consequences of breaking the rules?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checked if he or she can tell you what you want him or her to do about smoking cigarettes and drinking alcohol?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked about ways he or she could refuse offers of cigarettes or alcohol?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rules about cigarettes and alcohol can be developed in the same way other household or family rules are set for children. Parents can set rules, limits or guidelines about drug use in the same way they set them about things like bed times, children’s chores, or pocket money.

**Conclusion**

There is no sure way to make sure children will not experiment with alcohol, cigarettes or other drugs. There are, however, many things that parents can do to reduce the chances children are harmed by drugs. Talking with children about these topics is important and will not make them more curious and more likely to try drugs.

While parents are not the only influence in children’s lives, there are several things they can do to discourage children from smoking cigarettes or drinking alcohol in harmful ways. One of these is by parents discussing their opinions about cigarettes and alcohol with their children. Another is by setting and enforcing rules about drugs for children to follow. These topics have been covered in this pamphlet.

**Other things parents can do include:**

- Talking regularly about these topics and having discussions rather than giving lectures.
- Setting an example so your children learn how to avoid drug-use problems.
- Teaching your children ways to refuse offers of cigarettes or alcohol.
- Helping your children to feel close to and like an important member of the family.
- Trying to balance the influence of your children’s friends.
- Teaching your children the skills they need to prevent drug-use problems.

These topics are covered in other pamphlets in this series.

Need to know more?

Parent Drug Information Service 9442 5050
Children and drugs:
The example parents set makes a difference.

Introduction

Do you think parents can influence children's decisions about drugs?

Sometimes parents feel that their children's decisions about drugs are beyond their control. This can be especially so as their children become teenagers and are influenced more by friends. Some parents feel that what they say or think no longer makes a difference once a child has reached adolescence. In fact, this is not the case. Parents can have a great deal of influence. As a child goes through adolescence, what parents say and do is more important than ever. Parents are not the only influence in children's lives. However, there is a lot they can do to reduce the chances their children will have problems with drugs. One thing parents can do is to set an example.

Rugs are very much a part of the Australian lifestyle. Children are exposed to legal drugs such as alcohol and cigarettes at a young age. Parents and other adults provide important role models that children copy as they grow older. This means that if parents smoke cigarettes or drink alcohol in harmful ways, their children are likely to learn to do the same.

Many parents smoke cigarettes and/or drink alcohol but do not want their children to do so before they become adults. There are many things that parents in this situation can do. For example, they could express their disapproval of smoking and drinking by children. There are other things they can do too.

Setting an example: Some things you could do

Read through the charts below until you find a description that matches your use of cigarettes and alcohol. You should be able to find one that describes your use or non-use of cigarettes and one that describes your use or non-use of alcohol. Then answer the questions by ticking the "Yes" or "No" boxes. The boxes contain ways parents in the different groups can set an example for their children.

If you do not drink alcohol at all have you:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talked with your children about why you don't drink?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about the risks of drinking too much?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. getting drunk, injuries, getting into trouble, embarrassment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about what you want them to do about drinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before they become adults?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about what they think about this topic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helped your children understand how you feel about this topic?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If you do not smoke cigarettes or all have you....

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>talked with your children about why you don’t smoke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talked with your children about the risks of smoking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g., getting into trouble, smell, cost, health, addiction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talked with your children about what you would prefer them to do about smoking cigarettes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talked with your children about making your home a smoke-free zone?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talked with your children about what they think about smoking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>checked your children understand what you have said about this topic?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I smoke and/or drink but I don’t want my children to do the same.

Parents who smoke cigarettes often say they would feel like hypocrites if they told their children not to smoke. They may feel they are in no position to advise their children against smoking when they do it themselves. However, parents in this situation should still give advice to their children about smoking. The same applies to parents who drink alcohol and who don’t want their children to drink alcohol until they are adults. There are many things parents who smoke cigarettes or drink alcohol can do to set an example. Read the charts below for some ideas.

If you drink alcohol do you....

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>avoid drinking and driving?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>avoid becoming drunk, especially in front of your children?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>show your children that you also use other ways to relax and socialise?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talk with your children about the risks of drinking too much alcohol?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ask your children what they think about this topic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>talk with your children about what you would prefer them to do about drinking alcohol before they become adults?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>checked your children understand what you have said about this topic?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If you smoke cigarettes have you....

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tried to cut down?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tried to quit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained the difficulty of quitting due to addiction?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoided smoking in the car?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not allowed your children to light cigarettes for you?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not left cigarettes lying around?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gone outside to smoke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helped your children to understand that most children (and adults) do not smoke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about the risks of smoking? (E.g., cost, smell, getting into trouble, health, addiction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about what you would prefer them to do about smoking cigarettes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked your children what they think about this topic?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you smoke cigarettes and don't want to quit have you....

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talked with your children about the immediate risks of smoking? (E.g., getting into trouble, smell, cost, health)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helped your children to understand that most children (and adults) do not smoke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about what you would prefer them to do about smoking cigarettes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoided smoking in the car?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not allowed your children to light cigarettes for you?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not left cigarettes lying around where children can pick them up?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gone outside to smoke?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talked with your children about what they think about this topic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checked your children understand what you have said about this topic?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Action:** Make a plan

Ok back over the strategies listed in the tables above. Choose some that you could try with your children. Make a point of trying to do them in the next week.
Conclusion

There is no sure way to make sure your children will never use drugs. Many teenagers experiment with drinking alcohol and/or cigarettes. Some experiment with illegal drugs such as marijuana. Experimenting is often a part of growing up and it does not usually lead to drug-use problems. There are, however, many things parents can do to reduce the chances that their children will have problems with drug use. Year 6 is not too early to be talking about these topics. Discussing this with children will not make them curious and more likely to experiment.

While parents are not the only influence in children’s lives, there are several things they can do to discourage children from smoking cigarettes or drinking alcohol in harmful ways. One of these is by parents setting an example with their own use of these substances. This topic has been covered in this pamphlet.

Other things parents can do include:

1. Talking regularly about these topics and having discussions rather than giving lectures.
2. Talking with your children about your opinions about cigarettes and alcohol.
3. Setting clear and consistent guidelines for children to follow and explaining what will happen if the guidelines are not followed.
4. Teaching children ways to refuse offers of cigarettes and alcohol.
5. Helping children to feel close to and like an important member of the family.
6. Trying to balance the influence of your children’s friends.
7. Teaching children the skills they need to prevent drug-use problems.

These topics are covered in other pamphlets in this series.
Children and drugs: What parents talk about makes a difference.

Being a parent is a very important job but it is not always an easy one. People approach being a parent differently. Different parents use different communication methods with their children. However, there are some drug-related topics that all parents should try to discuss with their children. This pamphlet provides a summary of these topics.

Action: Discuss cigarettes and alcohol

While many parents are worried about illegal drug use, it is important they talk to their children about tobacco and alcohol. This is because these are the drugs to which children will most likely be exposed. These topics are usually covered at school. However, it is still important that parents talk about alcohol and cigarettes at home. This is because:

- Parents are a major influence in children’s lives.
- What parents say does make a difference.
- Children need to hear their parent’s opinions on these subjects and the school teacher cannot provide this.
- Children need to hear what the family expectations are about these drugs and the teacher cannot provide this.

Some parents are reluctant to raise the topics of cigarettes and alcohol because they think their children are still too young. Year 6 is not too early to talk to children about these topics. Sometimes parents who smoke or drink avoid talking about this with their children because they feel to do so would be hypocritical. Research shows that while these parents may feel like this, they should still discuss these topics with their children and explain to their children why they do not want them to drink or smoke.

Action: Discuss the short-term rather than long-term risks of drug use

The long-term harm of drug use usually means little to children. They usually live for the present. Forward planning and long-term health are not priorities. When discussing the risks of cigarettes and alcohol, talk about what could happen immediately or in the near future. It is more meaningful for children to discuss the risks associated with one-off use. For example, binge drinking and being drunk. It is important to be honest and avoid using scare tactics. The chart below lists some immediate risks of cigarettes and alcohol for children.

<table>
<thead>
<tr>
<th>Immediate risks of smoking cigarettes.</th>
<th>Immediate risks of drinking too much alcohol.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smell on clothes</td>
<td>Overdose, coma or death</td>
</tr>
<tr>
<td>Increased heart rate</td>
<td>Injuries</td>
</tr>
<tr>
<td>Cost of cigarettes</td>
<td>Regrettable/embarrassing behaviour</td>
</tr>
<tr>
<td>Parents disapprove</td>
<td>Get into trouble with parents</td>
</tr>
<tr>
<td>Getting into trouble at school/home</td>
<td>Fighting with friends</td>
</tr>
<tr>
<td>The process of addiction could begin</td>
<td>Hangover and vomiting</td>
</tr>
</tbody>
</table>
One reason why some children begin to smoke cigarettes is because they believe a lot of other children their age (or slightly older than them) do so. Parents can help correct this myth. Try the following activity with your Year 6 child. Show him or her the following graph and ask which bar shows the correct percentage of 13 year olds in WA who smoke cigarettes regularly.

---

**Answer:** For 13 year old Western Australians 'bar B' is correct, less than 13 percent are smokers. Most 13-year-olds (87%) choose to be non-smokers.

Children usually overestimate the number and really believe this to be true. Emphasise that most people (both young and old) choose not to smoke. Having this discussion with your child is really important – particularly if you smoke and do not want your child to do the same.

---

**Action:** Discuss the positive parts of drug use

- Discussions of drug use may be seen as one-sided if parents do not talk about the possible benefits of drug use. People would not use drugs if there were no advantages. For example, some children try smoking because it helps them feel part of the group. Other benefits experienced by people who use drugs include relaxation, stress relief, socialisation, increased confidence, pain relief, etc.

- Being honest with children and discussing the possible benefits of drug use builds your credibility in your children's eyes. Adolescents appreciate adults who are honest.

- While there are benefits of drug use, this does not mean you have to approve of drug use by your own or other children. It is also important to remember that talking to children about these issues will not cause children to use drugs.
Title: Discuss the benefits of being a non-smoker/non-drinker

Discuss with children the advantages of choosing not to use cigarettes and not to drink alcohol in harmful ways. Non-drug ways to relax and socialise should also be discussed. To help you think of things you could talk about, take a few minutes now to complete the chart that follows.

<table>
<thead>
<tr>
<th>Advantages of children choosing not to drink alcohol in harmful ways.</th>
<th>Ways to socialise and feel part of a group without drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save money</td>
<td>Playing or listening to music with friends</td>
</tr>
<tr>
<td>Will not get into trouble</td>
<td>Have friends over for a video</td>
</tr>
</tbody>
</table>

**Action:** Discuss your opinions

If parents don’t want their children to smoke cigarettes or use alcohol or other drugs in harmful ways, it is important to express disapproval of these things. Try not to assume that children know what you think. It is also important to ask your children what they think you would say about various topics. Some parents think they have explained themselves clearly but when they check with their children they get a surprise. Tick the box if you have talked to your Year 6 child about the following topics:

- What you think about children who smoke cigarettes.
- What your child thinks about children who smoke cigarettes.
- What you think about children having sips of alcohol with their family.
- What your children think about children having sips of alcohol with their family.
- What you think about children who drink too much alcohol.
- What your child thinks about children who drink too much alcohol.
- What your child thinks “too much alcohol” means.
- What you think about children who drink alcohol without permission.
- What your child thinks about children who drink alcohol without permission.

Asking for your children’s comments and opinions helps to make the communication a discussion rather than a lecture. Listening to your children’s opinions encourages them to take responsibility for themselves and shows them you appreciate that they are growing up.
If parents want to discourage their children from smoking cigarettes or drinking alcohol in harmful ways they should try to talk with them about what they would prefer the children to do. They should also set guidelines about these drugs for their children. The consequences if children break the rules should be discussed as well. Parents should try not to assume their children know these things already. Once children know what you want them to do, it is important for them to know that you trust them to look after their own health and safety. Try the following quiz.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>What you would prefer your child to do if he or she is offered a cigarette?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What you would prefer your child to do if he or she is offered alcohol?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Action:** Give your children a chance to practice refusing drugs

It is not enough to simply tell children what they should do. They also need to be taught how to put this into action. Parents could say something like "What could you do or say if:"

- You thought someone might be going to offer you a cigarette?
- You thought someone might ask you to drink alcohol without our permission?
- Someone offered you a cigarette?
- Someone asked you to drink alcohol without our permission?
- After you said 'no thanks' the person started to pressure you?

Parents could then have some fun by helping the children to rehearse and practise their answers and actions. Props such as hats or clothes could be used to help everyone get in the acting mood. One caution, though, is do not let children act out offering a drug to other children. This may have the effect of teaching them how to pressure other children.

**Conclusion**

Clearly, there are topics that parents who want to protect their children from drug-use problems should talk about with their children. These have been covered in this pamphlet. There are also other things parents can do to reduce the chances their child will smoke cigarettes or drink alcohol in harmful ways. These include:

- Setting an example so children learn how to avoid drug-use problems.
- Helping children to feel close to and like an important member of the family.
- Trying to balance the influence of your children's friends.

These topics are covered in other pamphlets in this series.

**Need to know more?**
Parent Drug Information Service 9442 5050

© S. Beatty, Centre for Health Promotion Research, Curtin University of Technology
Children and drugs: How parents talk with children makes a difference.

Children who have a good relationship with their parents and family and who feel they can talk honestly and openly with their parents, usually feel close to their family. Children who feel this way are less likely to have problems with drugs. If parents want to discourage their children from smoking cigarettes or drinking alcohol in harmful ways, they should try to talk with their children about these topics. This booklet contains eight tips on how to talk to children about drugs like cigarettes and alcohol.

Tip 1: You don't have to know everything.

You do need to know some facts about alcohol, tobacco and other drugs. However, if a topic comes up that you don’t know much about, don’t try to bluff your way through it. Instead, you could talk about possible sources of information. It could become a family project to find out the information or answers. Children often appreciate adults who admit they don’t have all the answers and are willing to learn together.

Tip 2: Be clear about your opinions and concerns about drug use.

Often parents are worried about drug use in general but are not clear about exactly what it is that worries them. Try to be sure about this before you raise the issue with your children. Take some time now to think about any concerns you may have about your children using alcohol and cigarettes. You could write additional worries in the blank spaces.

Concern or worry for me:

- The immediate or long-term health effects on my children
- The possibility of my children being injured
- The consequences if my children are caught with these drugs
- The influence of my children's friends on my children's decisions
- The chances of my children becoming dependent on these drugs
- What could happen to my child while he or she is under the influence of alcohol

Being aware of what worries you about drug use will help you to be able to explain your feelings to your children. For example, when a child asks “Why do you think getting drunk is a big deal”? You could answer “I don’t want you to get drunk because I’m worried that you could be injured or taken advantage of while you are drunk.”
Tip 3: Find out what concerns your children about drug use

Parents should also try to appreciate that what worries them most about drugs may not be what worries their children. Try the following activity.

Have you...
- Asked your children if they have any concerns about cigarettes?  
- Asked your children if they have any concerns about alcohol?  
- Asked your children which, if any, of the risks of smoking cigarettes concern them most?  
- Asked your children which, if any, of the risks of drinking alcohol concern them most?

Tip 4: Bringing up the subject of cigarettes, alcohol and/or other drug use

Talking to children about drug use is much easier if it is done before drug use becomes an issue for your children. It would then be one of many topics your family has talked about and can talk about again. By the time children are in Year 6 at school, parents should try to talk regularly with their children about topics related to cigarette smoking and drinking alcohol. Try not to assume that these topics are covered at school and therefore, there is no need for parents to discuss it as well.

Which of the following topics have you already talked about with your children? Tick the boxes.
- Your and their opinions about cigarette smoking by children;
- Your and their opinions about children drinking alcohol;
- Your and their opinions about adults drinking alcohol;
- Your and their opinions about children drinking too much alcohol;
- The immediate effects of drinking too much alcohol;
- The immediate effects of smoking cigarettes;
- What you would prefer them to decide about cigarettes and alcohol;
- Ways to avoid or refuse offers from friends to smoke cigarettes;
- Ways to avoid or refuse offers from friends to drink alcohol;
- How many children at school smoke cigarettes;
- Family rules about cigarettes and alcohol;
- What would happen if your children were found smoking cigarettes or drinking alcohol without permission.

It is important that you discuss these topics. Some parents say they are available to answer any questions their children may ask. However, many children say that they would like to talk with their parents about drugs but do not know how to ask. This can create a communication gap. Try not to wait for your children to ask you. Instead, start the discussion yourself.

You could use situations that happen at home to raise the issue. Read the story below. It is a conversation between Elizabeth, an 11-year-old, and her parents:

Elizabeth asks: “Mum, could I have a sip of your drink?” Her mother says ‘Yes’ and passes the glass to Elizabeth who takes a huge gulp of the wine. Both parents are a little surprised. Her mother says ‘Elizabeth, you asked for a sip and took a huge gulp’. Then her father says ‘Wine is not like cool drink and should be sipped slowly’. Her mother adds ‘this is because wine is like beer – it contains alcohol which is a powerful drug.’ ‘You did the right thing by asking me before you had a drink but you drank too much.’
Take some time now to think of ways you could casually raise the issue of alcohol or cigarettes with your Year 6 child. Make a list in the space below.

Sometimes parents who smoke or drink are reluctant to raise these subjects with their children. However, research shows that parents in this situation, who don’t want their children to smoke cigarettes or drink alcohol in harmful ways, should still discuss these topics with their children.

Tip 5 Be prepared for your children to raise the subject of drugs.

If your child raises the topic of drug use, try not to assume they want information because they have used or are about to use drugs. Instead, congratulate yourself for creating family atmosphere where your child feels comfortable to raise this topic.

Avoid launching into a lecture about the horrors of drug use. Find out what they want to know and provide the answers. If they want more information they will ask.

Sometimes children will raise the issue by talking about a pretend situation and ask you “What would you do if.....”. If this happens it is important not to conclude they are talking about themselves. It is a good opportunity to show your child that you can be open and non-judgmental. Keep the talk centred on the ‘pretend’ situation or people.

Some children will be much more direct and ask things like ‘What would you do if I smoked cigarettes/marijuana/had heroin/sniffed glue?’ This is an opportunity for you to calmly discuss your views on what you would prefer him or her to do and reinforce family expectations or rules. You might say something like ‘I am really pleased you asked me that because...’ Asking children is not likely to put the idea of using drugs into their heads. However, it is very to better prepare them for the realities of life.

Tip 6 Be prepared to hear things you may not agree with.

As children go through adolescence it is likely they will not agree with you as much as they ed to. You do not have to agree with what they say but try to accept their right to express eir opinions. If your children express opinions that you do not agree with, take some time explain why you disagree and what you would prefer them to think or do. Remember, children need to hear your views and know what you expect of them. It helps them to feel sure.

Tip 7 Revise, re-visit and communicate regularly.

Protecting children from drug use-problems is different to protecting them from something like the measles where one vaccination is enough. With drugs, information needs to be revisited, discussed again from a different angle and regularly talked about with children.
Children's attitudes and the situations they come across usually change when they become teenagers. Try to make talking with your children about alcohol, tobacco and eventually other drugs ongoing and part of your lifestyle.

**Tip 8: Check what your children think you have said**

Try to avoid a communication breakdown by checking with your children to see if they have understood what you have said. Also check with your children to see if they can tell you what your opinions are about different topics. You could do this by using a friendly voice and asking:

- 'What do you think I mean?'
- 'What do you think I would say about that?'

**Summary**

There's no such thing as a perfect parent, or a perfect way to talk to children about drugs - everyone does it differently. However, it is important that parents do talk to their children about these subjects. Parents are a very important influence in their children's lives. Take a few minutes to think about which of the tips you found to be most useful. Complete the following chart.

<table>
<thead>
<tr>
<th>Tip</th>
<th>Did you find this tip useful?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You don't have to know everything.</td>
<td>☐</td>
</tr>
<tr>
<td>2. Be clear on your opinions and concerns about drug use</td>
<td>☐</td>
</tr>
<tr>
<td>3. Find out what concerns your children about drug use.</td>
<td>☐</td>
</tr>
<tr>
<td>4. Raise the issue of cigarettes, alcohol and/or other drug use.</td>
<td>☐</td>
</tr>
<tr>
<td>5. Be prepared for your children to raise the topic themselves.</td>
<td>☐</td>
</tr>
<tr>
<td>6. Be prepared to hear things you may not agree with.</td>
<td>☐</td>
</tr>
<tr>
<td>7. Revise, re-visit and communicate regularly.</td>
<td>☐</td>
</tr>
<tr>
<td>8. Check what your children think you have said.</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Conclusion**

How parents talk with their children is one way to protect children from drug-use problems. This subject has been covered in this pamphlet. There are also other things parents can do to reduce the chances their child will smoke cigarettes or drink alcohol in harmful ways. Other things parents can do include:

- Talking regularly about these topics and having discussions rather than giving lectures.
- Talking with children about their opinions about the use of alcohol and cigarettes by children.
- Setting an example so children learn how to avoid drug-use problems.
- Setting clear and consistent guidelines or rules for children to follow and explaining what will happen if the rules are broken.
- Teaching children ways to refuse offers of cigarettes or alcohol.
- Helping children to feel close to and like an important member of the family.
- Trying to balance the influence of your children's friends.
- Teaching the skills they need to prevent drug-use problems.

**Need to know more?**

Parent Drug Information Service 9442 5050

**These topics are covered in other pamphlets in this series.**

Office of the Deputy Director, Health Protection Branch, City of Hobart.
Children and drugs: How parents get along with their children makes a difference.

Begin by trying this quiz:

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Unsure</th>
</tr>
</thead>
</table>

- Children who are allowed no freedom by their parents may rebel by using drugs. 
- Children need rules set by their parents. 
- Children who feel close to their parents and family are less likely to have problems with drugs. 
- Where there is a lot of arguments and conflict between parents and children, the children are more likely to have problems with drugs. 
- Children who make most of their decisions on their own, without help from their parents, are more likely to have problems with drugs. 
- Children who are given a lot of freedom and no rules are more likely to have problems with drugs.

How well parents get on with their children is important.

All of the above statements are true. Young people who have a close relationship with their parents often report few alcohol and other drug use-problems. A sense of closeness with parents is an important part of being a healthy and happy adolescent. In families where children do not feel close to their parents (e.g., where there are many disagreements and little agreement between parents and the children) there is a much greater chance the children will have problems with drug use.

In families where children are given too much freedom and have no family rules to follow, there is also a greater chance the children will have problems with drug use. The opposite extreme is also true. That is, where children have no freedom and too many rules there is a greater chance the children will have problems with drug use. Children need clear consistent rules but they also need some freedom too.
way to keep the lines of communication open is to use open-ended questions. They require more than a simple "yes" or "no" as an answer. They also help turn conversations with your children into discussions rather than lectures. Try using open-ended questions in every day conversations. For example:

**Open-ended question**
- What happened today? or What did you do today?
- What would you like for breakfast?
- What have you got left to do before you go to school?
- You look sad. How are you feeling?

Practice open-ended questions in every day life, your children will become used to you talking this way. It won't be so hard to use them when you want to talk about sensitive topics. Try the activity below.

### Make it into an open-ended question

**ended question**
- Did you have fun?
- Was your best friend?
- Are you ready for school?
- Are you feeling sad?

If there is open communication between parents and children about day-to-day topics, there is a greater chance there will be open communication about cigarettes and alcohol. Open communication also helps children to feel like an important part of the family. Helping children feel close to their family can protect children from experiencing drug-use problems.

Keep talking.

Parents become discouraged about keeping the lines of communication open when their children do not respond in the way they used to. As children move closer to adolescence they may not want to have conversations with their parents as before. This does not mean they don't want to talk to their parents. Nor does it mean they have nothing to say. It is important that parents actively inquire into their children's day-to-day lives. Make a list below.

Do available.

Closeness is more important to being teenagers they want to have their opinions listened to and taken seriously. Children need to feel like they are part of the family. "Available" parents helps them and develops strong bonds between parents and children. Children need to feel like they are part of the family. "Available" parents are always available when they need them usually feel close to and like being a part of their family. This feeling of closeness between family members helps to protect children from problems.

Away from home for periods of time you can still be 'available' by keeping in contact with your family. If this applies to your family, what things are done to help the parent who is away to stay in touch with what is going on in the children's day-to-day lives. Make a list below.
Children and drugs:
Balancing the influence of friends.

As children approach adolescence, their friends become more important. Sometimes parents may feel they are no longer an important influence in their children's lives. This is not true. Adolescents need their parents' guidance more than ever before. They may not ask for help as much or accept assistance as graciously as they used to. However, they still need guidance and love. They need advice without lecturing, reasonable rules, and opportunities to make up their own minds on issues. This pamphlet contains tips on things parents can do to try and balance the influence of friends.

**Action: Supervise your children**

Children who lack adult supervision rely more on friends for direction and also have more opportunities to use drugs. As children get older, supervision needs to be more subtle. Parents should try to be nearby and available without maintaining a continuous and obvious presence. When children are too old to be "supervised", change to monitoring them (see below).

**Do you...?**

Make sure your primary school children are unsupervised for short periods of time only?  

**Yes**  [ ]  **No**  [ ]

**Action: Monitor your children**

This means you always know where your children are, whom they are with and what time they will be home.

**Do you...?**

- Each your children to ask you if they can leave the house, visit friends or the shops?
- Occasionally check they are where they said they will be?
- Each your children to tell you if their plans change?
- Ask your children to check with you prior to going out with friends?
- Ask your children to leave a note to say where they are and what time they will be home?
- Make sure your children know where you are and how they can contact you?  

**Yes**  [ ]  **No**  [ ]
Action: Encourage positive peer influence

The influence of friends is often associated with unhealthy behaviours. It can also be used to encourage children to make healthy choices.

Do you...

- Ask your children how many people they have asked not to smoke? [ ] Yes [ ] No
- Encourage your children and their friends to promote the smoke-free message to others? [ ] Yes [ ] No
- Help your children to understand that the majority of children (and adults) living in Western Australia do not smoke? [ ] Yes [ ] No
- Discuss ways your children can reduce the negative influence of friends. (This encourages them to become independent and take responsibility for their own health and safety.) [ ] Yes [ ] No

Action: Restrict children's access to alcohol and cigarettes

Children who have easy access to alcohol and cigarettes are more likely to drink and smoke.

Do you...

- Be sure your child does not have easy access to cigarettes? [ ] Yes [ ] No
- Be sure your child does not have easy access to alcohol? [ ] Yes [ ] No

Action: Make your views on alcohol and cigarette use by children clear

Another way to balance the influence of friends is to make your own opinions clear and check your children know your opinions. This is important especially if you (or your partner) smokes or drinks and you do not want your children to do the same when they get older.

Do you...

- Check to see if your children can tell you what they think your views are about children not using cigarettes? [ ] Yes [ ] No
- Check to see if your children can tell you what they think your views are about children not using alcohol? [ ] Yes [ ] No
- Ask about alcohol and cigarettes with your children and their friends so they can hear your opinions too? [ ] Yes [ ] No
Children and drugs:
Common questions parents ask (with some answers).

Why do young people experiment with drugs?

There are many reasons why young people may try cigarettes, alcohol or other drugs. Curiosity is one. Children may try something once or a few times to see what it is like. Year 6 children are on the brink of adolescence. Curiosity about adult behaviours, such as smoking cigarettes and drinking alcohol becomes stronger. Children's desire for risk taking, excitement and greater independence from the family also increases at this time. Another reason why children may try drugs is because their friends are doing it and they want to feel part of the group. Children may try drugs because they want to feel more grown up or because they know they shouldn't.

What does this mean for parents of a Year 6 child?

Some parents think people who try drugs have low self-esteem or mental health problems. For parents to be able to discuss drug use in a meaningful way with children they must appreciate that young people don't normally try drugs because they have low self-esteem or other problems. They generally try drugs because they are interested in finding out what it will be like. It is important to remember that talking with children does not usually have the effect of making them curious. It is important that children get correct information.

Action... What should parents of a Year 6 child do?

Parents should remember they are an important influence in their children's lives.
Parents should try to feel confident they can influence their children's decisions about smoking cigarettes and drinking alcohol.

2. What drugs is my child likely to try?

It is impossible to say exactly what a Year 6 child will do but statistics show that for this age group the drug most often experimented with is tobacco, followed by alcohol. The majority of Year 6 children, however, have not tried smoking cigarettes and have very little experience drinking alcohol - especially unsupervised use of alcohol. Also, while some children may try smoking cigarettes, it does not mean they will become regular smokers.

What does this mean for parents of a Year 6 child?

While regular smoking is rare in Year 6, some 12-year-olds (35%) report they have tried a puff of a cigarette. This means that parents of Year 6 students should not assume that their child is too young and will not be exposed to smoking. Thirty-five per cent of 11-year-olds will likely try smoking cigarettes before they are 12 years old. This means if parents don't want their children to smoke they should begin talking about this topic before the children are 12 years old.

Only a small number of 12-year-olds (20%) have never tried alcohol. Of those who have tried alcohol, most have only had a few sips. Most of this alcohol use is in the company of adults and is done for recreation.
Action.....What should parents of a Year 6 child do?

If you do not want your children to smoke cigarettes:

- set an example that you are happy for your children to copy as they get older. If you and/or your partner smoke(s), it is important to tell your children that you would prefer they did not start;
- talk with your children about your views;
- talk about the short-term risks of smoking (eg, smell, get into trouble with parents/teachers, the addiction process could begin, etc); and
- help them learn ways to refuse offers of cigarettes by asking them what they could say or do if someone offers them a cigarette.

These things should be happening before the child reaches Year 7.

The average age of first unsupervised drinking of alcohol is 12 years for boys and 13 years for girls. Therefore, Year 6 is not too early to teach your children how to refuse offers of alcohol. To be able to refuse alcohol in a real life situation with their friends, children need plenty of practise beforehand.

**3. Which drugs are the most dangerous?**

The fact is, no one drug is more dangerous than others. All drugs can be used in risky ways and all drugs can cause problems for the user, their family and the community. For young people, the drug that is associated with the most deaths is alcohol.

**..........What does this mean for parents of a Year 6 child?**

The decision of whether or not to permit children alcohol is, of course, a decision for each family to make. Some families do not permit children any alcohol at all. Other families allow their children to have sips. In families where children are allowed some alcohol, the difference between low and high risk alcohol use should be discussed. For children low risk alcohol use means only having sips with their family, only drinking alcohol in the presence of adults and never drinking alcohol without parents' permission. When children drink alcohol without adult supervision or permission the risk of harm increases.

**Action.....What should parents of a Year 6 child do?**

Talk with your children about alcohol and cigarettes. This is important even if you smoke or drink yourself. Set rules and limits for your children and enforce these consistently and fairly. For example, children may only have sips of alcohol with parents’ permission.

Try to remember to ask your child what he or she thinks because this helps to create a discussion rather than a lecture.

**4. Does smoking marijuana lead to other drugs?**

The use of marijuana itself does not directly cause the use of other illegal drugs. It is possible that young people who use marijuana regularly are less conforming adolescents. Therefore, they may already be likely to use other illegal drugs.

Another possible reason to explain why marijuana users may try other illegal drugs is that because marijuana is illegal, those who use it may come into social contact with the black market. This means they may be exposed to and try other illegal drugs. Findings of research into this topic have often been incorrectly interpreted to mean that marijuana use has a high chance of leading to heroin use. This is incorrect. There are many other ways of using drugs and marijuana is one of them.
What does this mean for parents of a Year 6 child?

Many parents are often less concerned about the possibility of their children experimenting with cigarettes and alcohol than they are with the prospect of illegal drug use. However, discouraging cigarette and alcohol use by children may reduce the likelihood of illegal drug use later.

Action......What should parents of a Year 6 child do?

Parents who want their children to avoid using illegal drugs should try to discourage their children’s use of cigarettes. They should also discourage their children from using alcohol in harmful ways. For example, binge drinking. They should begin talking with their children about these topics before it becomes an issue. As a general rule, parents should be talking regularly about cigarettes and alcohol before children finish Year 6 at school.

Is it true that if you have one hit, you will become addicted?

Ide drugs have a reputation for producing instant addiction, but this is a myth. There is no such thing as instant addiction. Addiction takes time to develop. Furthermore, a user does not automatically progress from experimental use to addiction. If this were true then everybody who had experimented with or used alcohol (or any other drug) socially would now be addicted. Obviously, some users do progress from experimental use to addiction but this is the exception rather than the rule.

What does this mean for parents of a Year 6 child?

Parents should try to remember that drug experimentation is not the same as drug addiction. Parents may lose some credibility if they call someone, who has experimented once or twice with a particular drug, an addict.

Further, some parents mistakenly believe that people only have drug problems if they are addicted. This is untrue. Problems can result from any type of drug use. For example, a one-off experiment with drunkenness can result in disastrous injuries, financial, social and/or legal problems. Many parents are concerned their children may develop an addiction and this is a justifiable concern. However, many of the same parents are often less worried about one-off instances of drug experimentation such as binge drinking.

Action......What should parents of a Year 6 child do?

Talk with your children about smoking cigarettes and drinking too much alcohol. Discuss the immediate risks rather than being tempted to dwell on the problems of addiction.
6. How can I tell if my child is using drugs?

There is no easy answer to this question. Many of the signs of drug use are very similar to the signs of other teenage behaviours. For example, mood swings, increased need for privacy, a change in the type of clothes worn, change of friends, uncoordinated movement, vagueness, change in pupil size, etc. These are all signs of possible drug use. They are, however, also signs associated with being in love or being a perfectly normal teenager experiencing a normal adolescence.

What does this mean for parents of a Year 6 child?

It is unhelpful to jump to conclusions. If you notice your child is behaving differently and you confront him or her, the child may feel distrusted and hurt – particularly if there is no drug use involved. On the other hand, it is equally unhelpful to ignore such signs and hope they will go away.

Action.....What should parents of a Year 6 child do?

The situation needs to be discussed in much the same way as if some other problem such as problems at school or sickness was suspected. You could try approaching the situation as if you didn’t suspect drug use and ask open-ended questions such as “I’ve noticed that you seem different from your usual self... could we have a talk about things?” Acting as if you don’t suspect drug use may help you to get to the real problem and helps maintain your credibility if drug use is not involved. If drug use is involved, the Parent Drug Information Service (see phone below) could be contacted for advice.

To keep the lines of communication open it is important to appear calm, non-judgmental and provide plenty of chances for the child to explain things from his or her point of view. By asking “What do you think about...?” or “Why do you think that?” or “What did you do when that happened?” a discussion rather than a lecture is more likely.

8. Where can I get more information?

* Parent Drug Information Service 9442 5050

Conclusion

There are many things parents can do to reduce the chances their child will smoke cigarettes or drink alcohol in harmful ways.

* Parents should talk to their children about drugs and try to have discussions rather than give lectures.
* The topics of cigarettes and alcohol should be discussed with children by their parents before children reach Year 7 of school.
* The discussions should cover the immediate risks associated with these drugs rather than the likelihood of addiction.
* Parents should make their own feelings clear, and set rules and limits for their children.
* Parents should try to set an example they are happy for their children to copy as the children get older.
* Parents should try to get along well with their children and help children feel close to their family.

These topics are covered in other pamphlets in this series.
Appendix 4

Randomised Comparison Trial:
Study schedule for Intervention-group schools
# PARENT DRUG EDUCATION RESEARCH PROJECT

**Meeting with Principals of Intervention Group Schools**

1. **School:** ________________  
2. **Group:** ______

3. **Principal's name:** ___________________________________________________________________

4. **Future contact person:** ________________________________________________________________

5. **Preferred contact method:**  
   - **Phone** □ **Number:** ________________________________  
   - **Fax** □ **Number:** ________________________________  
   - **Email** □ **Address:** ________________________________________________________________

6. **Names of Year 6 teachers:**  
   - ____________________________________________________________________  
   - ____________________________________________________________________  
   - ____________________________________________________________________  
   - ____________________________________________________________________  
   - ____________________________________________________________________  
   - ____________________________________________________________________  

   **Straight/split**  
   - __________________  
   - __________________  
   - __________________  
   - __________________  
   - __________________  
   - __________________

   **No. Yr 6s**  
   - ______  
   - ______  
   - ______  
   - ______  
   - ______  
   - ______

7. **Checklist**
   - Principal signed consent form  
     □
   - Copy of signed consent for given to Principal  
     □
   - Ask Year 6 teachers to program drug education for term 2  
     □
   - Ask Year 6 teachers not to send home any parent drug education activities (Group 1 and 2 schools)  
     □
   - Copy of Year 6 class lists  
     □
     - Identify Year 6 student names in split classes  
       □
     - Identify any twins, step, or one child kept down  
       □
   - Date and time for pre-tests organised  
     □
   - Given Information and consent letters and asked that they be distributed to all Year 6 students on the Monday of Week 4 Term 1.  
     □
   - Asked if Principal has any comments or questions.  
     □
PARENT DRUG EDUCATION RESEARCH PROJECT
PRINCIPAL'S CHECKLIST

- Given consent for students and staff to participate in the research and received a copy of Curtin University's signed consent form.

- Asked Year 6 teachers to program drug education for term 2

- Asked Year 6 teachers not to send home any parent drug education activities

- Provided Shelley Beatty with a copy of Year 6 class lists
  - Identified Year 6 student names in split classes
  - Identified any twins in Year 6
  - Identified any step brothers/sisters in Year 6

- Advised Year 6 teachers of date and time for pre-tests

- Distributed Information/Consent letters to all Year 6 students on the Monday of Week 4 Term 1.

- Ensured that any students who were absent received an Information/Consent letter when they returned to school.
PARENT DRUG EDUCATION RESEARCH PROJECT
CONSENT OF SCHOOL PRINCIPAL
(Intervention Group 1 Schools)

What your school/staff will be asked to do during 1999
- Program to teach drug education to Year 6 students in Term 2 (if possible).
- Provide names of the Year 6 teachers.
- Provide class lists of Year 6 students.
- Distribute an Information/Consent letter to parents of Year 6 students. (Multiple copies will be provided by Curtin University).
- Permit trained researchers/teachers to administer three 30-minute surveys with the Year 6 students. (Surveys will be administered in terms 1, 3 and 4)
- Collect returned parent surveys and have them ready for collection by university staff.
- Distribute a letter (multiple copies provided by the University) to parents of Year 6 students that asks parents to select, free of charge, five out of seven drug education pamphlets. Collect the parents' written replies and have them ready for collection by university staff.
- Distribute parent drug education materials, supplied by the University, to students. Ask students to deliver the materials to their parents.
- Do not send home any other drug education activities to parents. (That is, do not distribute Home Activities contained in the WA School Drug Education Project materials)
- Year 6 teachers complete a brief survey that assesses their perceptions of satisfaction with the process used to conduct this research study.

What will Curtin University provide as part of this project?
- Trained researchers/teachers to administer surveys.
- An innovative method to actively engage parents in children's learning.
- Acknowledgment of participating schools at the completion of the project.
- A regular newsletter proving an update of the research.
- Any materials required for this research project. Schools will not be required to do any photocopying.
- Summary of research results provided for the school.
Signatures
I agree to ensure all schools involved in the Drug Education for Parents Project receive the materials and support indicated in this document.

____________________________
Associate Professor Donna Cross
Director
Centre for Health Promotion Research
Curtin University

I agree to allow my school to be involved in the Drug Education For Parents Project for the activities indicated above during 1999.

____________________________
Principal's Name

____________________________
School

____________________________
Signature
PARENT DRUG EDUCATION RESEARCH PROJECT
CONSENT OF SCHOOL PRINCIPAL
(Intervention Group 2 Schools)

What your school/staff will be asked to do during 1999

- Program to teach drug education to Year 6 students in Term 2 (if possible).
- Provide names of the Year 6 teachers.
- Provide class lists of Year 6 students.
- Distribute an Information/Consent letter to parents of Year 6 students. (Multiple copies will be provided by Curtin University).
- Permit trained researchers/teachers to administer three 30-minute surveys with the Year 6 students. (Surveys will be administered in terms 1, 3 and 4)
- Collect returned parent surveys and have them ready for collection by university staff.
- Distribute parent drug education materials, supplied by the University, to students. Ask students to deliver the materials to their parents.
- Do not send home any other drug education activities to parents. (That is, do not distribute Home Activities contained in the WA School Drug Education Project materials)
- Year 6 teachers complete a brief survey that assesses their perceptions of satisfaction with the process used to conduct this research study.

What will Curtin University provide as part of this project?

- Trained researchers/teachers to administer surveys.
- An innovative method to actively engage parents in children's learning.
- Acknowledgment of participating schools at the completion of the project.
- A regular newsletter proving an update of the research.
- Any materials required for this research project. Schools will not be required to do any photocopying.
- Summary of research results provided for the school.
Signatures
I agree to ensure all schools involved in the Drug Education for Parents Project receive the materials and support indicated in this document.

__________________________________________
Associate Professor Donna Cross
Director
Centre for Health Promotion Research
Curtin University

I agree to allow my school to be involved in the Drug Education For Parents Project for the activities indicated above during 1999.

__________________________________________  _________________________
Principal's Name                           School

__________________________________________
Signature
Appendix 5

Randomised Comparison Trial:
Study schedule for Comparison-group schools
PARENT DRUG EDUCATION RESEARCH PROJECT
Meeting with Principals of Comparison Group Schools

1. School: ___________________  2. Group _______

3. Principal's name: ___________________

4. Future contact person: ___________________

5. Preferred contact method:
   Phone □  Number:
   Fax □  Number:
   Email □  Address: ___________________

6. Names of Year 6 teachers: Straight/split  No. Yr 6s
   ___________________  ________
   ___________________  ________
   ___________________  ________
   ___________________  ________
   ___________________  ________
   ___________________  ________

7. Checklist
   • Principal signed consent form
   □
   • Copy of signed consent for given to Principal
   □
   • Ask Year 6 teachers to program drug education for term 2
   □
   • Ask Year 6 teachers not to send home any parent drug education activities (Group 1 and 2 schools)
   □
   • Copy of Year 6 class lists
     Identify Year 6 student names in split classes
     Identify any twins, step, or one child kept down
   □
   • Date and time for pre-tests organised
   □
   • Given Information and consent letters and asked that they be distributed to all Year 6 students on the Monday of Week 4 Term 1.
   □
   • Asked if Principal has any comments or questions.
   □
PARENT DRUG EDUCATION RESEARCH PROJECT
PRINCIPAL'S CHECKLIST

- Given consent for students and staff to participate in the research and received a copy of Curtin University's signed consent form.

- Asked Year 6 teachers to program drug education for term 2

- Asked Year 6 teachers not to send home any parent drug education activities

- Provided Shelley Beatty with a copy of Year 6 class lists
  - Identified Year 6 student names in split classes
  - Identified any twins in Year 6
  - Identified any step brothers/sisters in Year 6

- Advised Year 6 teachers of date and time for pre-tests

- Distributed Information/Consent letters to all Year 6 students on the Monday of Week 4 Term 1.

- Ensured that any students who were absent received an Information/Consent letter when they returned to school.
PARENT DRUG EDUCATION RESEARCH PROJECT
CONSENT OF SCHOOL PRINCIPAL
(Comparison Group Schools)

What your school/staff will be asked to do during 1999
• Program to teach drug education to Year 6 students in Term 2 (if possible).
• Provide names of the Year 6 teachers.
• Provide class lists of Year 6 students.
• Distribute an Information/Consent letter to parents of Year 6 students. (Multiple copies will be provided by Curtin University).
• Permit trained researchers/teachers to administer three 30-minute surveys with the Year 6 students. (Surveys will be administered in terms 1, 3 and 4)
• Collect returned parent surveys and have them ready for collection by university staff.
• Year 6 teachers complete a brief survey that assesses their perceptions of satisfaction with the process used to conduct this research study.

What will Curtin University provide as part of this project?
• Trained researchers/teachers to administer surveys.
• Access to state-of-the-art drug education materials for parents (free-of-charge).
• An innovative method to actively engage parents in children's learning.
• Acknowledgment of participating schools at the completion of the project.
• Any materials required for this research project. Schools will not be required to do any photocopying.
• Summary of research results provided for the school.
Signatures
I agree to ensure all schools involved in the Drug Education for Parents Project receive the materials and support indicated in this document.

Associate Professor Donna Cross
Director
Centre for Health Promotion Research
Curtin University

I agree to allow my school to be involved in the Drug Education For Parents Project for the activities indicated above during 1999.

______________________________  __________________________
Principal’s Name                  School

______________________________
Signature
Appendix 6

Randomised Comparison Trial:
Recruitment letter for principals
Dear Mr ______

PARENT DRUG EDUCATION RESEARCH PROJECT

The Centre for Health Promotion Research at Curtin University is conducting research in the area of drug education for parents. This research is supported by Healthway and approved by the Human Research Ethics Committee at Curtin University. The overall aim of this research is to increase the participation of parents of Year 6 students in drug education so they are better able to communicate with their children about drugs such as alcohol and tobacco. This research has been deemed a worthwhile area of inquiry by the Director-General of the Education Department and endorsed by the Coordinator of the Western Australian School Drug Education Project.

Your school has been randomly selected to participate in this research. I would therefore like to ask you to consider allowing your school to be involved in this important and innovative project. The participation of schools is obviously a crucial component of this project and it cannot proceed without the support of Principals such as yourself. There will be minimal involvement on the part of your school. The research targets parents of Year 6 children and I would appreciate your help in gaining access to this group.

As you can see from the enclosed schedule, this research will extend for only one year and be conducted primarily during the second term of 1999.

In terms of workload, Year 6 teachers will be asked to:

- make their students available for university staff to administer three surveys during 1999 (early in term two, late in term 2 and late in term 4);
- distribute and collect parent surveys with the assistance of university staff; and
- program to teach their usual drug education lessons during term two of 1999. Teachers will not be asked to teach any new materials or to alter the way they currently teach drug education. I need teachers to deliver their usual drug education curriculum at the same time this drug education research with parents is being conducted.

All schools agreeing to be involved will receive acknowledgment at the completion of the project as well as have the benefit of access to state-of-the-art drug education materials for their parents (free of charge). The drug education materials designed for parents will be consistent with a comprehensive approach to health education and supportive of key documents such as the Health Education K-10 Syllabus and the Curriculum Framework materials for the Health and Physical Education Learning Area.

Please read the enclosed schedule and I will phone you within the next two weeks to discuss your response. At this stage I am seeking a verbal agreement for your school to participate in this research in 1999. In the meantime, should you require further details or clarification of any information please don’t hesitate to contact me (telephone 9266 2752 or email beattys@health.curtin.edu.au).

Yours sincerely

Shelley Beatty MPH
Research Coordinator
20 October 1998
Appendix 7

Randomised Comparison Trial:
Information and consent letter for parents
Dear Parents/Guardian

CHILDREN AND DRUGS

Raising children is one of our most important tasks. Most of us learn how to be parents through "on-the-job training" and by following the example our parents set. However, being a parent today is different to when our parents did it. Things such as the media and the internet expose children to the outside world at a younger age. Drugs are no exception. Most of us need help to deal with the frightening possibility of our children being harmed by drugs.

As a member of Curtin University's Centre for Health Promotion Research I am conducting research on drug education for parents. The aim of my research is to help parents talk about drugs with their children. Your Year 6 child's school was randomly chosen and has agreed to take part in this study. The school has sent you this letter on behalf of Curtin University.

Staff from Curtin University will be administering two or three surveys to the Year 6 students during this year. At the same time, surveys will be sent home for parents to complete and return to the school. Each survey will take approximately 20 minutes.

There are no right or wrong answers to the survey questions and the information collected will remain strictly confidential. No information gained from this research can be traced back to you or your child. The surveys will be securely stored at Curtin University. This study has the approval of the Human Research Ethics Committee at Curtin University and has been deemed a worthwhile area of inquiry by the Director-General of the Education Department of Western Australia.

Your participation in this study is completely voluntary and you can withdraw at any time. You or your child will not be disadvantaged in any way if you decide not to participate.

If you are happy to participate in this research there is nothing to do at this stage. The first survey will be brought home by your Year 6 child during the week beginning 8 March. If you do not wish to participate, please write me a brief note stating your child's name and school and I will ensure that you and your child do not receive any surveys. Please address the letter to Children and Drugs Project, School of Public Health, Curtin University, PO Box U1987, Perth 6845.

If you would like more information about this research or have any concerns or questions please contact me (telephone 9266 2752 or email beatlys@health.curtin.edu.au).

We as parents have the most to lose when our children are harmed by drug use. When it comes to educating our children about drugs and protecting them from harm, schools can help, police can help, churches can help, but no one can replace the family. I believe that this research project is important and would appreciate your help.

Yours sincerely

*helley Beatty
Research Coordinator
2 February 1999
Appendix 8

Randomised Comparison Trial:
Newsletters for school staff
Parent Drug Education Research Project
Information for Year 6 Teachers

Welcome
Welcome to the Parent Drug Education Research Project and thank you for helping us to help parents. Without the support and cooperation of teachers such as you this project would not be able to proceed.

What is this project about?
The aim of this project is to help parents talk with their children about drugs.

Which parents are involved?
This project is for parents who have a child in Year 6. This age group was targeted because this is when most children have not seriously experimented with cigarettes or had unsupervised access to alcohol. This project focuses very much on the prevention of harm and helping to build parents’ skills and knowledge before drug use becomes an issue.

Which drugs?
Cigarettes and alcohol are the focus of this project. This is because many parents do not consider these substances to be drugs and also because these are usually the drugs to which children are first exposed.

How was my school chosen?
Eighteen schools were randomly selected from all Perth metropolitan primary schools to participate in this research project. The Principal of each school was contacted and invited to participate. The Principal of your school gave consent for the Year 6 staff and Year 6 students to take part in this research.

Is this research ethical?
This research must have approval from the Human Research Ethics Committee at Curtin University before it can proceed. This research has such approval (Approval number HR191/97) and has also been deemed, by the Director-General of the Education Department of Western Australia, to be a worthwhile area of inquiry. This research is also supported by the Health Promotion Foundation of Western Australia (Healthway).

Have the parents consented to participate?
The parents of the Year 6 students were informed about this research (via the Information and Consent letter distributed to Year 6 students during the week beginning 22 February). Parents were given the opportunity to withdraw from this research. Any parents who did not want to participate were asked to notify Shelley Beatty at Curtin University. The children of any parents who did so will not receive a survey today because their name has been removed from the study database. If any parents indicated to you they did not wish to participate, please ensure that you pass this information onto the researcher who gave you this newsletter before students complete the surveys.

PTO
Because it is possible that some parents may not have received or read the Information and Consent letter, the information is repeated on the front of the Parent Surveys that students will take home today.

**What happens after today?**
The students have been asked to take a survey home to be completed by a parent/guardian whom they have selected.

Please collect the surveys as the students return them. We would like the surveys back within two weeks and we need **as many surveys back as possible**. Please encourage students to return the parent surveys by:

- Reminding them they can get another two stickers when they bring the parent survey back to you.
- Emphasising that even if their parent does not want to do the survey they should still bring it back and they will get the stickers.
- Praising and rewarding students who return the surveys (Give them two of the enclosed Smarter Than Smoking stickers)

Please use the enclosed class list to keep track of which students have returned parent surveys. Distribute a reminder note (copies enclosed) to any students who have not returned the parent survey after one week.

Students whose parents have indicated they did not wish to participate in this research are marked on the enclosed class list. In the interests of equity, please ensure that these students get the Smarter Than Smoking stickers for some other good behaviour.

Do not open the parent surveys as they are returned.

**When will the parent surveys be picked up?**
Shelley Beatty will visit the school to collect the parent surveys. Please have all the parent surveys at the front office by **Monday 22 March**. Please contact Shelley if any surveys are returned after this date. She will make arrangements to collect these.

**Is there anything else?**
If possible, please teach your usual drug education lessons during term 2 and do not send home any drug education activities for parents as these will be supplied by this project.

**From where can I get more information?**
If you have any questions, concerns or suggestion please contact Shelley Beatty (telephone 9 266 2752, fax 92662958 or e-mail beattys@health.curtin.edu.au).
Because it is possible that some parents may not have received or read the Information and Consent letter, the information is repeated on the front of the Parent Surveys that students will take home today.

What happens after today?
The students have been asked to take a survey home to be completed by a parent/guardian whom they have selected.

Please collect the surveys as the students return them. We would like the surveys back within two weeks and we need as many surveys back as possible. Please encourage students to return the parent surveys by:

- Reminding them they can get another two stickers when they bring the parent survey back to you.
- Emphasising that even if their parent does not want to do the survey they should still bring it back and they will get the stickers.
- Praising and rewarding students who return the surveys (Give them two of the enclosed Smarter Than Smoking stickers)

Please use the enclosed class list to keep track of which students have returned parent surveys. Distribute a reminder note (copies enclosed) to any students who have not returned the parent survey after one week.

Students whose parents have indicated they did not wish to participate in this research are marked on the enclosed class list. In the interests of equity, please ensure that these students get the Smarter Than Smoking stickers for some other good behaviour.

Do not open the parent surveys as they are returned.

When will the parent surveys be picked up?
Shelley Beatty will visit the school to collect the parent surveys. Please have all the parent surveys at the front office by Monday 22 March. Please contact Shelley if any surveys are returned after this date. She will make arrangements to collect these.

From where can I get more information?
If you have any questions, concerns or suggestion please contact Shelley Beatty (telephone 9 266 2752, fax 92662958 or e-mail beattys@health.curtin.edu.au).
Parent Drug Education Research Project
Update for Year 6 Teachers – May 1999

What is this research about?
The aim of this project is to help parents talk with their children about drugs. This project is for parents who have a child in Year 6. This age group was targeted because this is when most children have not experimented with cigarettes or had unsupervised access to alcohol. This project focuses on the prevention of harm and helping to build parents’ skills and knowledge before drug use becomes an issue. Cigarettes and alcohol are the focus of this project. This is because many parents do not consider these substances to be drugs and also because these are usually the drugs to which children are first exposed.

What is the progress so far?
There are 20 primary schools, 72 Year 6 teachers and almost 1500 Year 6 students and their parents participating in this research. So far everything has been progressing relatively smoothly for such a big project. The level of cooperation and professionalism displayed by school staff has been really helpful in keeping this research on track and on time. This research began in schools in term 1 this year and will finish in term 4 this year.

Pre-test surveys have been administered to students and parents in all 20 schools. The response rate from parents was an amazing 89%. This means that almost 90% of the surveys students took home for their parents to complete were returned. Teachers did a fantastic job of getting these surveys back!

The information collected by the pre-test surveys is being entered onto a database. The data will be analysed and some preliminary results should be available before the end of this year. Study results will be forwarded to schools as soon as they become available.

The 20 schools participating in this research were randomly assigned to one of the following three study conditions:

- **Condition 1:** parents are given a choice of drug education pamphlets to read.
- **Condition 2:** parents are given drug education pamphlets to read but not a choice of which pamphlets they receive.
- **Condition 3:** parents are not given any drug education pamphlets to read.

While schools in Study Condition 3 will not receive any drug education materials to distribute to their Year 6 parents while the research is in progress, they will receive a full set of the pamphlets after the post-testing has been completed later this year.
What is happening with the drug education pamphlets for parents?
In the schools where parents will be receiving drug education materials, this process has begun and the response from parents has been very positive. Parents in these schools will receive five drug education pamphlets to read.

The pamphlets contain information on how parents can to try to protect their children from being harmed by drugs. The pamphlets are interesting, easy-to-read and free. Information in the pamphlets is based on discussion groups with parents. Many parents who had a child in Year 6 were consulted. The materials are based on what these parents said they needed to help them talk with their children about drugs.

Each of the pamphlets is a different colour. This is so parents are more likely to notice and read them. Parents do not receive all five pamphlets at once. Instead they receive one pamphlet every three weeks so they have time to read it and try some of the communication ideas and tips with their children. Staff at Curtin University pack the pamphlets into envelopes to make them easier for teachers to distribute.

Inside each pamphlet is a feedback sheet that parents are encouraged to complete and return to the school. When parents return a feedback sheet, their Year 6 child’s name is placed in the draw for a $100 shopping voucher from Coles. The draw will happen after the fifth pamphlet has been distributed to parents and the feedback sheets collected.

The purpose of the feedback sheets is to gain some idea of how many of the drug education pamphlets are actually making it home to parents. They are, therefore, a very important aspect of this research. We know that it is difficult for teachers to get the feedback sheets back from some students. We really appreciate teachers’ efforts in getting as many back as possible.

To begin with some parents were returning the coloured pamphlets as well as the feedback sheets. Teachers were made aware of this and hopefully this problem will be sorted out. Parents should keep the coloured pamphlets and return only the white feedback sheets.

When should teachers deliver drug education lessons to students?
If possible, teachers should teach their usual drug education lessons during term two or early term 3 of 1999. We need teachers, if possible, to deliver their usual drug education lessons at the same time this drug education research with parents is being conducted. It is really important that teachers do not send home any drug education information or activities for parents other than those provided by Curtin University as this contaminate the results of this research.

What happens next?
When the distribution of all five pamphlets is complete, post-test surveys will be administered. The results from the post-test survey will be used to determine if the intervention had any effect on the drug-related communication between parents and their children.

From where can I get more information?
If you have any questions, concerns or suggestion please contact Shelley Beatty (telephone 9266 2752, fax 92662958 or e-mail beattys@health.curtin.edu.au).
Dear

Parent Drug Education Research Project: Report to Schools and Parents

You may recall that during last year (1999) the parents of the Year 6 children at your school were invited to participate in the Parent Drug Education Research Project being conducted by the Centre for Health Promotion Research at Curtin University. The majority of parents accepted the invitation and this research was extremely successful in terms of recruiting and retaining parents.

This year has seen the data analyses phase of this project. I have some results that may interest you. I have prepared a preliminary report and enclosed a copy for you and your staff. Staff who taught Year 6 last year may be interested as they played an important role in the implementation of this research.

Many parents who participated in this study indicated on the final survey that they wanted to be informed of the findings of this research. If possible, would you make this report available for parents of the Year 7 children, as many of these are likely to have been part of the study sample last year when their child was in Year 6? I have enclosed are multiple copies of the report for this purpose.

Thank you for your support of this project. If you require any additional information please contact me (telephone 9266 2953, fax 9266 2958 or e-mail beatys@health.curtin.edu.au).

Yours sincerely

Shelley Beatty
Research Coordinator

16 November 2000

encls
The aim of this project was to help parents talk with their children about drugs. This project targeted parents who had a child in Year 6. This age group was targeted because this is when most children have not experimented with cigarettes or had unsupervised access to alcohol. This project focused on the prevention of harm and helping to build parents’ skills and knowledge before drug use becomes an issue. Cigarettes and alcohol were the focus of this project. This is because many parents do not consider these substances to be drugs and also because these are usually the drugs to which children are first exposed.

There were 20 primary schools, 72 Year 6 teachers and almost 1500 Year 6 students and their parents who participated in this project. Pre-test surveys were administered to students and parents in all 20 schools. The response rate from parents was 90%.

The 20 schools participating in this research were randomly assigned to one of the following three study conditions:

- Condition 1: parents were given a choice of drug education information sheets to read.
- Condition 2: parents were given drug education information sheets to read but not a choice of what they received.
- Condition 3: parents were not given any drug education information sheets to read.

While schools in Study Condition 3 did not receive any drug education materials to distribute to their Year 6 parents while the project was in progress, they did receive a full set of the Information Sheets after the post-testing had been completed.

When the dissemination of the Information Sheets to parents was completed, the students and parents were administered a follow-up survey. The response rate from parents was 80%. At this time teachers were also surveyed to collect their feedback on the project (response rate 68%). Three months later some parents were administered a second follow-up survey to assess any decay of results (response rate 50%).

The following seven alcohol-and tobacco-related topics were identified in the literature as being important for parents to discuss with their children in the prevention of alcohol and tobacco-use problems:

1. The risks (immediate, short and long-term) of smoking cigarettes.
2. How many Year 6 children actually smoke. (Most Year 6 children do not smoke. In fact, 86% of the 1457 Year 6 students surveyed in this project reported never having smoked a cigarette – even just a few puffs, 10% reported having had a few puffs, 2% reported having smoked one whole cigarette and 2% reported having smoked more than this.)
3. What parents would prefer their child to do if he or she is offered a cigarette.
4. Ways the child could refuse offers of cigarettes.
5. The risks of drinking too much alcohol.
6. What parents would prefer their child to do if he or she is offered alcohol.
7. Ways the child could refuse offers of alcohol.
At both baseline and follow-up, the majority of parents in all three study conditions felt it was very important to talk with their Year 6 child about these seven topics and felt very confident about their ability to do so. The majority of parents also expected that talking with their Year 6 child about these topics to be a positive experience.

The majority of the parents surveyed reported having talked with their Year 6 child about smoking cigarettes and drinking alcohol. However, the only one of the seven topics that more than half the sample reported having actually talked about recently (in the last two weeks) was the risks of smoking cigarettes. At follow-up, the parents who read the Information Sheets were more likely to have reported talking with their child about the other six topics than parents who were in the comparison group.

The preliminary results of this research project suggest the following:

- Parents are very receptive to participating in drug education. The very high response rates confirm this and only 2.6% of parents invited to participate withdrew their consent. Further, the overall loss to follow-up of parents over the 12-month duration of the project was low (17%).

- Providing educational materials that parents of Year 6 children can read in their own home appears to be a feasible means to reach this group with drug education information. Enclosed in each of the five Information Sheets was a feedback sheet that parents were asked to complete and return. The aim of this instrument was to ascertain if the Information Sheets were actually making it home to parents. The response rate ranged from 63% for the first feedback sheet to 44% for the fifth feedback sheet. While the decline in the response rate was to be expected, it does give an indication that the Information sheets were reaching parents.

- Parents of Year 6 children will read Drug Education Information Sheets that are distributed by the school. Data collected via the Feedback Sheets (described above) indicated that parents read all or most of the information and liked all or most of the content. Parents also found all or most of the information to be useful and had tried all or some of the communication strategies.

- Providing parents with learn-at-home drug education Information Sheets may have a small but important impact on their drug-related communication behaviour. At baseline, few parents reported talking with their Year 6 child about drinking alcohol. At follow-up, the parents who read the Information Sheets were more likely to have talked with their Year 6 child about drinking alcohol and more likely to have had a two-way discussion than parents who were in the comparison group. Further data analyses are under way to ascertain factors, apart from the Drug Education Information Sheets, that may have been associated with these results.

If you would like more information about this research, please contact Shelley Beatty (telephone 9266 2953, fax 92662958 or e-mail beattys@health.curtin.edu.au).
Appendix 9

Randomised Comparison Trial:
Parent baseline questionnaire
Dear Parent/Guardian

As a member of Curtin University’s Centre for Health Promotion Research I am conducting research that aims to help parents talk with their children about drugs. Thank you for agreeing to take part in this study. Your Year 6 child’s school has agreed to send this survey to you on behalf of Curtin University.

I appreciate you taking 20 minutes of your time to complete this survey. The information you provide will remain strictly confidential. For this reason your name has not been included on the survey. The surveys have been numbered so I can follow-up with parents who do not reply to make sure they received a survey. The numbering will also allow me to relate your answers to those of your child. The results, however, will be processed anonymously.

I need to know how you really feel, so please answer all questions as honestly as possible. Answer each question from your own point of view and not that of your partner (if you have one) or what you think I want you to write.

If you are a parent of more than one child in Year 6, you will have received more than one survey. Only complete the survey given to you by the child who was born first (that is, the oldest child in Year 6) but return all of the surveys.

When you have finished the survey please return it to the school in the envelope it came in. The teachers will not look at your answers. All parents who return the survey, whether it is completed or not, have a chance to win a $50 voucher from Coles. I will collect the surveys from the school and remove them from the envelopes. The empty envelopes will be placed into a box and one will be chosen as the winner of the raffle.

If you do not wish to complete the survey, please return it to the school in the envelope it came in so I know you received it.

Thank you for supporting this research. If you have any questions or would just like to talk about the survey please contact me (telephone 9266 2752 or e-mail beattys@health.curtin.edu.au).

Yours sincerely

Shelley Beatty MPH
Research Coordinator
1. **How IMPORTANT is it for you to TALK WITH your Year 6 child about the following?**
   (Circle ONE number only on EACH line)

<table>
<thead>
<tr>
<th></th>
<th>Not important</th>
<th>Somewhat important</th>
<th>Moderately important</th>
<th>Very important</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers, etc).............</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. How many children your child's age actually smoke cigarettes................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. What you would prefer your child to do if he or she is offered a cigarette.............</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Ways your child could refuse offers of cigarettes.............................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (e.g. vomiting, fighting, or other embarrassing things)..........................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. What you would prefer your child to do if he or she is offered alcohol.................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Ways your child could refuse offers to drink alcohol........................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. **How much can you influence your Year 6 child's decisions about whether or not to smoke cigarettes?**
   (Circle ONE number only)

   I have no influence at all.................................................. 1  
   I can influence my child very little................................. 2  
   I can influence my child sometimes................................. 3  
   I can influence my child a lot........................................ 4  
   I am unsure how much I can influence my child.................. 5  

3. **How much can you influence your Year 6 child's decisions about whether or not to drink alcohol?**
   (Circle ONE number only)

   I have no influence at all.................................................. 1  
   I can influence my child very little................................. 2  
   I can influence my child sometimes................................. 3  
   I can influence my child a lot........................................ 4  
   I am unsure how much I can influence my child.................. 5  

(16-22)
4. How much can you influence your Year 6 child to believe that most young people do not smoke?  
(Circle ONE number only)

I have no influence at all.............................................. 1  
I can influence my child very little.................................. 2  
I can influence my child sometimes.................................. 3  
I can influence my child a lot........................................ 4  
I am unsure how much I can influence my child.............. 5  

5. How much can you influence your Year 6 child to believe that drinking too much alcohol is risky?  
(Circle ONE number only)

I have no influence at all.............................................. 1  
I can influence my child very little.................................. 2  
I can influence my child sometimes.................................. 3  
I can influence my child a lot........................................ 4  
I am unsure how much I can influence my child.............. 5  

6. How CONFIDENT are you in your ability to TALK WITH your Year 6 child about the following?  
(Circle ONE number only on EACH line)

<table>
<thead>
<tr>
<th></th>
<th>Not confident at all</th>
<th>Somewhat confident</th>
<th>Moderately confident</th>
<th>Very confident</th>
<th>Unsure</th>
</tr>
</thead>
</table>
| a.  The risks of smoking cigarettes  
(e.g. bad breath, addiction, cancers)........... | 1                   | 2                  | 3                    | 4             | 5     |
| b.  How many children your child's age actually smoke cigarettes.......................... | 1                   | 2                  | 3                    | 4             | 5     |
| c.  What you would prefer your child to do if he or she is offered a cigarette........... | 1                   | 2                  | 3                    | 4             | 5     |
| d.  Ways your child could refuse offers of cigarettes........................................ | 1                   | 2                  | 3                    | 4             | 5     |
| e.  The risks of drinking too much alcohol  
(e.g. vomiting, fighting, or other embarrassing things).............................. | 1                   | 2                  | 3                    | 4             | 5     |
| f.  What you would prefer your child to do if he or she is offered alcohol............. | 1                   | 2                  | 3                    | 4             | 5     |
| g.  Ways your child could refuse offers to drink alcohol........................................ | 1                   | 2                  | 3                    | 4             | 5     |
7. When I talk with my Year 6 child about smoking cigarettes and drinking alcohol I will feel...
(Circle ONE number only on EACH line)

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pleased I had done it......................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Like a responsible parent..................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Embarrassed because my child might think my views are out of date..........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Sad because my child will not listen to what I say..............................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Stressed because these topics are difficult to talk about.....................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Worried because I might have said the wrong things.................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The next questions ask about talking with your Year 6 child. By “talking with” we mean both incidental brief comments and also longer conversations.

8. When was the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes?
(Circle ONE number only)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>More than three months ago.....................</td>
<td>1</td>
</tr>
<tr>
<td>In the last three months........................</td>
<td>2</td>
</tr>
<tr>
<td>In the last two months..........................</td>
<td>3</td>
</tr>
<tr>
<td>In the last month................................</td>
<td>4</td>
</tr>
<tr>
<td>In the last two weeks...........................</td>
<td>5</td>
</tr>
<tr>
<td>In the last week..................................</td>
<td>6</td>
</tr>
<tr>
<td>Yesterday or today...............................</td>
<td>7</td>
</tr>
<tr>
<td>I have never talked to my Year 6 child about this.</td>
<td>8</td>
</tr>
<tr>
<td>I don't remember..................................</td>
<td>9</td>
</tr>
</tbody>
</table>
9. Think about the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes. How LONG did the talk last?  
(Circle ONE number only)

- Less than five minutes................................. 1
- About five minutes...................................... 2
- More than five minutes but less than 10 minutes.. 3
- More than 10 minutes.................................. 4
- I have not talked to my Year 6 child about this.... 5
- I don’t remember........................................ 6

10. The LAST time you talked to your Year 6 child about smoking (or not smoking) cigarettes, did you ask for your child’s opinion?

- Yes............................................................. 1
- No..................................................................... 2
- I don’t remember........................................... 3
- I have not talked to my Year 6 child about smoking cigarettes........................................... 4

11. When you talk with your Year 6 child about smoking (or not smoking) cigarettes, what usually happens?  
(Circle ONE number only)

- I talk and he or she listens.................................. 1
- We both talk and we both listen to each other.... 2
- A mixture of both of the above.......................... 3
- I don’t remember............................................ 4

12. When was the LAST time you talked with your Year 6 child about drinking (or not drinking) alcohol?  
(Circle ONE number only)

- More than three months ago............................. 1
- In the last three months.................................. 2
- In the last two months................................... 3
- In the last month.......................................... 4
- In the last two weeks.................................... 5
- In the last week........................................... 6
- Yesterday or today....................................... 7
- I have never talked to my Year 6 child about this. 8
- I don’t remember......................................... 9
13. Think about the LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol. How LONG did the talk last?  
(Circle ONE number only)

- Less than five minutes................................. 1
- About five minutes...................................... 2
- More than five minutes but less than 10 minutes.. 3
- More than 10 minutes.................................... 4
- I have not talked to my Year 6 child about this.... 5
- I don't remember........................................ 6

14. The LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol, did you ask for your child's opinion?  
(Circle ONE number only)

- Yes...................................................................... 1
- No...................................................................... 2
- I don't remember.............................................. 3
- I have not talked to my Year 6 child about alcohol......................................................... 4

15. When you talk with your Year 6 child about drinking (or not drinking) alcohol, what usually happens?  
(Circle ONE number only)

- I talk and he or she listens.................................. 1
- We both talk and we both listen to each other.... 2
- A mixture of both of the above.......................... 3
- I don't remember.............................................. 4

16. In the last TWO WEEKS, which of the following topics have you talked about with your Year 6 child?  
(Circle ONE number only on EACH line)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)...</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b.</td>
<td>How many children your child's age actually smoke cigarettes...............</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c.</td>
<td>What you would prefer your child to do if he or she is offered a cigarette.................................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d.</td>
<td>Ways your child could refuse offers of cigarettes..............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e.</td>
<td>The risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things).................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f.</td>
<td>What you would prefer your child to do if he or she is offered alcohol..</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g.</td>
<td>Ways your child could refuse offers to drink alcohol.........................</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
The following questions ask about your opinions.
(Circle ONE number only for each statement)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.</td>
<td>There is a lot parents can do to reduce the chances their children will smoke cigarettes.........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18.</td>
<td>If parents smoke cigarettes their children are likely to do the same..................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19.</td>
<td>Children know their parents' opinions about smoking cigarettes - they don't need to be told........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20.</td>
<td>Parents who smoke cigarettes should give advice to their children about smoking.....................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21.</td>
<td>Parent don't need to teach their Year 6 children ways to refuse offers to drink alcohol because the children are too young..............................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22.</td>
<td>Having clear family rules about cigarettes reduces the chance that children will take up smoking........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23.</td>
<td>Talking with Year 6 children about smoking cigarettes is more important than talking with them about illegal drugs such as heroin...........................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24.</td>
<td>Parents who drink alcohol should not give advice to their children about drinking alcohol...........</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25.</td>
<td>Talking with Year 6 children about alcohol makes them curious about drinking........................</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26.</td>
<td>Talking with Year 6 children about the risks of illegal drugs (such as heroin and amphetamines) is more important than talking with them about the risks of alcohol.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27.</td>
<td>Year 6 is too early for parents to teach their children ways to refuse offers to smoke cigarettes.....</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
The following questions are about your Year 6 child and cigarettes.

28. Do you believe your Year 6 child has tried smoking cigarettes?  
(Circle ONE number only)

No........................................ 1
Yes - just a few puffs............... 2
Yes - a whole cigarette............. 3
Yes - more than a whole cigarette.. 4
I don't know.................................. 5

29. How many Year 6 students in your child's class do you believe have tried smoking cigarettes (even just a few puffs)?  
(Circle ONE number only)

None of them............................ 1
A few of them........................... 2
About half of them..................... 3
Most of them............................ 4
All of them.............................. 5
I don't know............................. 6

30. Before the end of this year, do you believe your Year 6 child will smoke a cigarette?  
(Circle ONE number only)

No........................................ 1
Yes - just a few puffs............... 2
Yes - a whole cigarette............. 3
Yes - more than a whole cigarette.. 4
I don't know.................................. 5

31. Before the end of this year, how many other Year 6 students in your child's class do you believe will smoke cigarettes (including just a few puffs)?  
(Circle ONE number only)

None of them............................ 1
A few of them........................... 2
About half of them..................... 3
Most of them............................ 4
All of them.............................. 5
I don't know............................. 6
The next questions are about alcohol.

By alcohol we mean things like:
- beer, champagne, cider or wine
- fortified wines (E.g. sherry or port) and liqueurs (E.g. Baileys)
- soft drinks or fruit juice that contain alcohol (E.g. alcoholic sodas)
- ready-mixed spirits (E.g. UDL cans)
- spirits (E.g. Rum, brandy, vodka, gin, whisky, etc.)

For these questions one drink of alcohol means one whole drink at any one time. Do not add up any sips of alcohol and call this one whole drink. Each one of the drinks below equals one whole drink.

- **1 MIDDY**
  - (285 mL)
  - Full-strength Beer
  - (4-6% alcohol/volume)

- **1 SMALL GLASS**
  - (100 mL)
  - Wine
  - (10-14% alcohol/volume)

- **1 GLASS**
  - (60 mL)
  - Fortified Wine
  - (Port, sherry)
  - (17-19% alcohol/volume)

- **1 SHOT**
  - (30 mL)
  - Spirits
  - (37-43% alcohol/volume)

32. **Which of the following sentences best describes how much alcohol your Year 6 child has had in his or her whole life?**
(Circle ONE number only)

**Note:** Do not add up sips of alcohol that your child has had on different occasions.

- My child has never had a drink of alcohol........................................ 1
- My child has only ever had sips of alcohol with the family.................... 2
- My child has had one whole drink of alcohol is his or her life............... 3
- My child has had two to five whole drinks of alcohol in his or her life..... 4
- My child has had six to 10 whole drinks of alcohol in his or her life....... 5
- My child has had more than 10 whole drinks of alcohol in his or her life. 6
- I don't know how much alcohol my child has had............................. 7
33. Before the end of this year, will your Year 6 child drink more than sips of alcohol with your family? 
   (Circle ONE number only)

   Yes.................. 1
   No................... 2
   I don't know...... 3

(71)

34. Before the end of this year, how many of the Year 6 students in your Year 6 child’s class do you believe will drink more than sips of alcohol with their family? 
   (Circle ONE number only)

   None of them...................................... 1
   A few of them..................................... 2
   About half of them............................... 3
   Most of them..................................... 4
   All of them...................................... 5
   I don't know.................................... 6

(72)

The next questions ask about you. The information you provide will be kept strictly confidential and will not be used to find out the identity of you or your child.

35. What is your age?

   Less than 25 years...................... 1
   25-29 years............................... 2
   30-34 years............................... 3
   35-40 years............................... 4
   41-44 years............................... 5
   45-50 years............................... 6
   51-54 years............................... 7
   55-60 years............................... 8
   60+ years................................. 9

(73)

36. Are you male or female? 
   (Circle ONE number only)

   Female................................. 1
   Male.................................... 2

(74)

37. What is the relationship between you and your child in Year 6? 
   (Circle ONE number only)

   I am his/her mother..................... 1
   I am his/her father.................... 2
   I am his/her stepmother............... 3
   I am his/her stepfather............... 4
   I am his/her legal guardian......... 5
   Other (Please describe).............. 6

(75)
38. **What is your present marital status?**
   (Circle ONE number only)
   - Married........................................... 1
   - De facto (living together).................... 2
   - Separated but not divorced................... 3
   - Divorced......................................... 4
   - Widowed......................................... 5
   - Never married.................................. 6

39. **Including your child in Year 6, how many children do you have in your family?**
   ....................................................  
   (77)

40. **In terms of order of birth, where in the family is your Year 6 child relative to your other children?**
   (Circle ONE number only)
   - First child...................................... 1
   - Second child................................... 2
   - Third child..................................... 3
   - Fourth child................................... 4
   - Fifth child..................................... 5
   - Other. Please explain......................... 6

41. **Do you have more than one child in Year 6 (for example, twins, triplets, step children, etc)?**
   (Circle ONE number only)
   - No....... 1
   - Yes....... 2

42. **What is the HIGHEST level of education you have completed?**
   (Circle ONE number only)
   - Primary school............................... 1
   - Year 10 at secondary school................. 2
   - Year 11 at secondary school............... 3
   - Year 12 at secondary school............... 4
   - Trade qualification/TAFE course/business college......................... 5
   - University qualification.................... 6
   - Other. Please describe below.............. 7
43. What is your main occupation?
   (Please write neatly in full)

44. What is your post code?
   (Write in the boxes)

45. Are you an Australian citizen?
   (Circle ONE number only)

   Yes, Australian citizen. 1
   No.......................... 2

46 (a) In which country were you born?
   (Circle ONE number only)

   Australia.................. 1 Go to 46b
   England.................... 2
   Scotland................... 3
   Italy......................... 4
   Greece....................... 5
   New Zealand................ 6
   Viet Nam.................... 7
   Other - please specify. 8

46 (b) Are you of Aboriginal or Torres Strait Islander origin?

   No........................................ 1
   Yes, Aboriginal.................... 2
   Yes, Torres Strait Islander........ 3
47(a) Have you ever participated in a drug education course for parents?
(Circle ONE number only)

No.................. 1.. Go to 48
Yes.................. 2.. Go to 47(b)

(69)

47(b) How long ago did you participate in a drug education course for parents?
(Circle ONE number only)

Less than 6 months ago.................. 1
6 - 12 months ago ...................... 2
13 months - 2 years ago.................. 3
More than 2 years ago.................. 4

(90)

48(a) Have you ever participated in a parenting skills course?
(Circle ONE number only)

No.................. 1.. The end
Yes.................. 2.. Go to 48(b)

(91)

48(b) How long ago did you participate in a parenting skills course?
(Circle ONE number only)

Less than 6 months ago.................. 1
6 - 12 months ago ...................... 2
13 months - 2 years ago.................. 3
More than 2 years ago.................. 4

(92)

You have reached the end of the survey. Thank you for participating in this research. Please place the survey in the envelope it came in and return it to the school via your Year 6 child. You will automatically be entered into the raffle for a $50 voucher from Coles. The information on the front of the envelope will be used to enter you in the draw and will not be used for any other purpose.

Curtin
University of Technology
Western Australia

Healthway
Appendix 10

Randomised Comparison Trial:
Student baseline questionnaire
1. This year at your school, is there more than one child from your home in Year 6? (Circle ONE number only)
   No. .......... 1 .................   Put your pen down and wait for question 2
   Yes. .......... 2 .................   Answer question 1b

   1(b) Are you the oldest? (Circle one number only)
   Yes. .......... 1
   No. .......... 2

2. Which parent talks with you about smoking (or not smoking) cigarettes? (You can circle more than one number)
   My mother ........................................ 1
   My father ........................................ 2
   My stepmother .................................... 3
   My stepfather .................................... 4
   Neither of my parents ............................ 5
   My guardian ..................................... 6
3. Which parent talks with you the MOST about smoking (or not smoking) cigarettes?
   (Circle ONE number only)
   
   My mother............................................. 1
   My father........................................... 2
   My stepmother.................................... 3
   My stepfather..................................... 4
   My guardian....................................... 5
   Someone else..................................... 6
   (Please describe who this is)               

4. Which parent talks with you about drinking (or not drinking) alcohol?
   (You can circle more than one number)
   
   My mother............................................. 1
   My father........................................... 2
   My stepmother.................................... 3
   My stepfather..................................... 4
   Neither of my parents.......................... 5
   My guardian....................................... 6
   (25-30)

5. Which parent talks with you the MOST about drinking (or not drinking) alcohol?
   (Circle ONE number only)
   
   My mother............................................. 1
   My father........................................... 2
   My stepmother.................................... 3
   My stepfather..................................... 4
   My guardian....................................... 5
   Someone else..................................... 6
   (Please describe who this is)               

   (31)

6. OVERALL, who talks with you the MOST about cigarettes and alcohol?
   (Circle ONE number only)
   Choose an adult who you live with most of the time.
   
   My mother............................................. 1
   My father........................................... 2
   My stepmother.................................... 3
   My stepfather..................................... 4
   My guardian....................................... 5
   Someone else..................................... 6
   (Please describe who this is)               

   (32)
7. **In the LAST TWO WEEKS, which of the following topics has this parent talked about with you?**
   (Circle ONE number only on EACH line)

   | a. | Has this person talked with you about the risks of smoking cigarettes (for example, bad breath, addiction, cancers, etc)? | 1 | 2 | 3 |
   | b. | Has this person talked with you how many children your age actually smoke cigarettes? | 1 | 2 | 3 |
   | c. | Has this person talked with you about what he or she wants you to do if you are offered a cigarette? | 1 | 2 | 3 |
   | d. | Has this person talked with you about ways you could refuse offers to smoke cigarettes? | 1 | 2 | 3 |
   | e. | Has this person talked with you about the risks of drinking too much alcohol (for example, vomiting, fighting or other embarrassing things)? | 1 | 2 | 3 |
   | f. | Has this person talked with you about what he or she wants you to do if you are offered alcohol? | 1 | 2 | 3 |
   | g. | Has this person talked with you about ways you could refuse offers to drink alcohol? | 1 | 2 | 3 |

8. **When was the LAST time this parent talked with you about smoking (or not smoking) cigarettes?**
   (Circle ONE number only)

   - More than three months ago | 1
   - In the last three months | 2
   - In the last two months | 3
   - In the last month | 4
   - In the last two weeks | 5
   - In the last week | 6
   - Yesterday or today | 7
   - He or she has never talked to me about this | 8
   - I don’t remember | 9
9. Think about the last time this parent talked with you about smoking (or not smoking) cigarettes. How LONG did the talk last? (Circle ONE number only)

- Less than five minutes................................. 1
- About five minutes...................................... 2
- More than five minutes but less than 10 minutes... 3
- More than 10 minutes................................... 4
- He or she has not talked to me about this......... 5
- I don't remember........................................ 6

(41)

10. The LAST time this parent talked with you about smoking (or not smoking) cigarettes, did he or she ask you for your opinion? (Circle ONE number only)

- Yes............................................................. 1
- No............................................................. 2
- I don't remember........................................ 3
- He or she has not talked to me about smoking cigarettes....................................................... 4

(42)

11. When this parent talks with you about smoking (or not smoking) cigarettes, what usually happens? (Circle ONE number only)

- He or she talks and I listen............................... 1
- We both talk and we both listen to each other..... 2
- A mixture of both of the above........................ 3
- I don't remember........................................ 4

(43)
12. When was the LAST time this parent talked with you about drinking (or not drinking) alcohol?  
(Circle ONE number only)

More than three months ago........................................... 1
In the last three months............................................. 2
In the last two months................................................ 3
In the last month....................................................... 4
In the last two weeks................................................ 5
In the last week......................................................... 6
Yesterday or today..................................................... 7
He or she has never talked to me about this............. 8
I don't remember......................................................... 9  

13. Think about the last time this parent talked with you about drinking (or not drinking alcohol). How LONG did the talk last?  
(Circle ONE number only)

Less than five minutes............................................ 1
About five minutes.................................................. 2
More than five minutes but less than 10 minutes.... 3
More than 10 minutes................................................. 4
He or she has not talked to me about this............. 5
I don't remember......................................................... 6  

14. The LAST time this parent talked with you about drinking (or not drinking) alcohol, did he or she ask you for your opinion?  
(Circle ONE number only)

Yes................................................................. 1
No............................................................................. 2
I don't remember................................................... 3
He or she has not talked to me about drinking alcohol......................................................... 4  

15. When this parent talks with you about drinking (or not drinking) alcohol, what usually happens?  
(Circle ONE number only)

He or she talks and I listen............................................. 1
We both talk and we both listen to each other....... 2
A mixture of both of the above.................................. 3
I don't remember......................................................... 4
The next questions are about cigarettes and are more personal. Your teacher or your parents will not see your answers.

16. Have you ever smoked a cigarette?
   (Circle ONE number only)
   No........................................................................... 1
   Yes - just a few puffs............................................... 2
   Yes - I have smoked a whole cigarette.................... 3
   Yes - I have smoked more than a whole cigarette... 4

17. Before the end of this year, do you think you will smoke a cigarette?
   (Circle ONE number only)
   No........................................................................... 1
   Yes - just a few puffs............................................... 2
   Yes - I will smoke a whole cigarette.................... 3
   Yes - I will smoke more than a whole cigarette.... 4
   I don't know....................................................... 5

18. How many Year 6 students in your class do you think have tried smoking cigarettes (even just a few puffs)?
   (Circle ONE number only)
   None of them...................................................... 1
   A few of them.................................................... 2
   About half of them............................................ 3
   Most of them................................................... 4
   All of them...................................................... 5
   I don't know..................................................... 6

19. Before the end of this year, how many Year 6 students in your class do you think will smoke cigarettes (even just a few puffs)?
   (Circle ONE number only)
   None of them...................................................... 1
   A few of them.................................................... 2
   About half of them............................................ 3
   Most of them................................................... 4
   All of them...................................................... 5
   I don't know..................................................... 6
The next questions are about alcohol and are personal. Remember, your teacher or your parents will not see your answers.

By alcohol we mean things like:
- beer, champagne, cider or wine
- fortified wines (E.g. sherry or port) and liqueurs (E.g. Baileys)
- soft drinks or fruit juice that contain alcohol (E.g. alcoholic sodas)
- ready-mixed spirits (E.g. UDL cans)
- spirits (E.g. rum, brandy, vodka, gin, whisky, etc.)

For these questions one drink of alcohol means one whole drink at any one time. Do not add up any sips of alcohol you may have had and call this one whole drink. Each one of the drinks below equals one whole drink.

![Diagram showing different drink sizes](image)

1 MIDDY
(285 mL)
Full-strength Beer
(4-6% alcohol/volume)

1 SMALL GLASS
(100 mL)
Wine
(10-14% alcohol/volume)

1 GLASS
(60 mL)
Fortified Wine
(Port, sherry)
(17-19% alcohol/volume)

1 SHOT
(30 mL)
Spirits
(37-43% alcohol/volume)

20. **In your whole life, how much alcohol have you had?**
   (Circle ONE number only)
   
   I have never had a drink of alcohol................................. 1
   I have only ever had sips of alcohol with my family ............. 2
   I have had one whole drink of alcohol in my life.................. 3
   I have had two to five whole drinks of alcohol in my life......... 4
   I have had six to ten whole drinks of alcohol in my life......... 5
   I have had more than 10 whole drinks of alcohol in my life..... 6

21. **Before the end of this year, do you think you will drink more than sips of alcohol with your family?**
   (Circle ONE number only)
   
   Yes.................... 1
   No..................... 2
   I don’t know... 3
22. Before the end of this year, how many of the Year 6 students in your class do you think will drink more than sips of alcohol with their family? (Circle ONE number only)

None of them...................... 1
A few of them..................... 2
About half of them............... 3
Most of them...................... 4
All of them....................... 5
I don’t know...................... 6

The next questions are about you. The information will not be used to find out your name.

23. What sex are you? (Circle ONE number only)

I am a boy............................. 1
I am a girl............................. 2

24. What year are you in at school? (Circle ONE number only)

Year 5.................................... 1
Year 6.................................... 2
Year 7.................................... 3

25. How old are you? (Circle ONE number only)

9 years old............................ 1
10 years old............................ 2
11 years old............................ 3
12 years old............................ 4
13 years old............................ 5

26. Write the name of your school here ____________________________________

Please write neatly

27. Write the name of your teacher here ____________________________________

Please write neatly

28. Write today’s date here ____________________________________

Please write neatly

The End.
Thank you for doing this survey.
Appendix 11

Randomised Comparison Trial:
Student data collection protocol
Appendix No. Protocol for Administration of student questionnaire
PARENT DRUG EDUCATION PROJECT

PROTOCOL FOR ADMINISTRATION OF STUDENT QUESTIONNAIRE

1. Arrive at the school at least 20 minutes before the specified time. Go to the school administration office and ask for the Principal (or contact person). Explain you are in the school to administer the student survey to all Year 6 students for the Parent Drug Education Research Project being run by Cutin University. Find out from the Principal (or contact person) which classes are being grouped together for the survey.

2. Go to the classroom and introduce yourself to the class teacher/s. The teacher is responsible for the class and must remain in the room with the students at all times. Ask the teacher to assist with handing out the surveys and with maintaining class control. Also ask the teacher not to look at the student's surveys or answer students' questions regarding the survey as this may bias the results. The teachers have previously been asked to provide this assistance in a fax sent to the school in the last week.

Ask the teacher if they know of any parents who did not consent to their child's participation in this research. Such parents were asked to contact Shelley Beatty, but they may have contacted the school. If this has happened, remove that student's survey and write "no consent" next to his or her name on your copy of the class list.

Give the teacher/s their “Teachers Kit” which contains a Project Information Sheet, incentive, class list with ID codes, reminder letters and incentives for students.

3. Distribute one student survey and envelope and one parent survey to each student according to the class list.

It is very important that the student survey remains attached to the parent survey. This is because the identification codes on the parent surveys are matched to those on the student surveys.

It is also very important that the students are given the correct survey according to the code written next to their names on the class list.

Indicate on your copy of the class list if any students are absent (mark with an ‘A’).

4. Make sure every student has a pen.
5. Introduce yourself and explain the study using the description below:

Hello, my name is ......................... and I am from Curtin University.

Your school is very special.
Out of all the schools in Western Australia your school was chosen to help us in a very important study about how families talk about things like alcohol and tobacco.

6. Explain to students:

1. I will read each question aloud and then give you time to answer.

2. This is not a test. Your answers will not be marked.

3. No-one at school will see your answers. Your parents will not see them either. When you have finished the survey I will ask you to put it into the envelope you have been given. This is so no one can see your answers.

4. Answer each question as best you can. Do not look at what other students write.

5. If you don't know an answer or don't understand a question, that's okay. Just circle "I don't know".

6. If any question makes you feel uncomfortable or you don't wish to answer it you can leave it out.

7. Answer each question based on your own opinion; not on what you think your friends will write or what you think we want you to say.

8. If you have any questions, wait until we have finished to ask.

9. If you want to change your answer put a cross next to the wrong answer and then circle the correct answer.
7. Slowly read aloud all of the questions, prompts and responses. Do not paraphrase (that is, do not say the question in your own words) Read the questions, prompts and responses exactly as they are written. Do not expand on or explain the question. You may have to repeat the question (if students look confused) but do not paraphrase or explain what the question means.

If necessary, remind students stay where you are on the survey and not race ahead.

Also, if necessary, remind students to keep their eyes on their own survey and don't look at what other people write.

8. If a student wants to ask a question remind them they must wait until the end.

9. On completion ask students to return to question six of their survey and look at their answer. Ask students to write this person's role in the space on the white label that is on front of the envelope containing the parent survey. Provide the following example for students. If you selected your mother for question 6 then write “mother” in the space. If you selected your father for question 6 write “father” in the space.

10. Ask the students to:
   - put their survey into the envelope you handed out earlier;
   - use the paper clip to hold the envelope closed (do not seal the envelope);
   - put the envelope on their desk ready for you to collect.

11. Collect all envelopes containing the student survey.

12. Explain to students that the parent envelope must be taken home and given to the person whose name is now attached to the envelope.

   **Emphasise** that the parent survey must be given to the parent (or guardian) whose name is now written on the white label and that this parent should be the one to do the survey.

13. Ask students to put the parent survey in their bag now and then return to their seats.
14. Give each student a sticker to say thank you for completing the student. Explain to students:

- they can get another sticker when they bring the parent survey back to their teacher.
- we would like the surveys back within one week (work this out and specify a day).
- emphasise that even if their parent does not want to do the survey they should still bring it back and they will get the second sticker.
- all parents who return the survey (whether it is completed or not) can go in a raffle for a $50 voucher from Coles.

15. Return completed and spare student surveys as well as your copy of the class lists to Shelley Beatty at the Centre for Health Promotion Research in the School of Public Health. (Building 400 Room 465)

16. If you have any questions or concerns contact Shelley Beatty (Work 9 266 2752 or home 9446 4153).
Appendix 12

Randomised Comparison Trial:
Teachers' Data Collection Kit
To: «First» «Surname»
«School»

From: Shelley Beatty

Parent Drug Education Research Project

As you know, the aim of this project is to help parents talk with their children about drugs. During term two, the parents of your Year 6 children will be provided with some pamphlets to read. The pamphlets contain information about things parents can do to try and protect their children from being harmed by drugs.

During term two, your Year 6 students will take home one pamphlet every two weeks. These pamphlets will be provided by the Centre for Health Promotion Research at Curtin University. You will also receive a copy of the pamphlets so you know what parents are getting.

The parents of your Year 6 children are being offered a choice regarding which pamphlets they would like to read.

What to do

1. Distribute the enclosed envelopes to your Year 6 students. Ask the students to deliver the envelope to the person to whom the envelope is addressed. (The envelopes are personally addressed to the person each student chose when they completed the student survey recently.) A copy of the letter being sent to parents is enclosed for your information. If a student in your class does not have an envelope to deliver, it is because they arrived at the school after this research project began or their parents did not consent to their involvement.

2. Collect the parents’ replies and have them ready at the front office for collection on Thursday 1 April.

3. Praise each student who returns the sheet from their parents and give him or her two stickers (enclosed).

More information

If you would like more information please contact me (telephone 9266 2752 or e-mail beatty@health.curtin.edu.au or fax 9 266 2958)

Shelley Beatty
Project Coordinator
22 March 1999
Appendix 13

Randomised Comparison Trial:
Parent follow-up questionnaire
CHILDREN AND DRUGS RESEARCH PROJECT
CONFIDENTIAL PARENT SURVEY 2

PLEASE READ THIS INFORMATION BEFORE YOU BEGIN
It is important the person who completed this survey earlier this year completes it again now. Please check whose name is on the front of the envelope. If you were not the person who did this survey last time, please give this survey to the person who was. Also, if you have more than one child in Year 6, please answer the questions with the oldest Year 6 child in mind. Thank you.

1. Are you male or female?
   Circle one number only
   Female............................................. 1
   Male............................................. 2

2. What is the relationship between you and your child in Year 6?
   Circle one number only
   I am his/her mother.............................. 1
   I am his/her father.............................. 2
   I am his/her stepmother.......................... 3
   I am his/her stepfather........................... 4
   I am his/her legal guardian..................... 5
   Other (Please describe).......................... 6

3. How IMPORTANT is it for you to TALK WITH your Year 6 child about the following?
   Circle one number only on each line
<table>
<thead>
<tr>
<th></th>
<th>Not Important</th>
<th>Somewhat Important</th>
<th>Moderately Important</th>
<th>Very Important</th>
<th>Unsure</th>
</tr>
</thead>
</table>
   a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers, etc)............................................. | 1 | 2 | 3 | 4 | 5 |
   b. How many children your child's age actually smoke cigarettes................................................................. | 1 | 2 | 3 | 4 | 5 |
   c. What you would prefer your child to do if he or she is offered a cigarette...................................................... | 1 | 2 | 3 | 4 | 5 |
   d. Ways your child could refuse offers of cigarettes.............................................. | 1 | 2 | 3 | 4 | 5 |
   e. The risks of drinking too much alcohol (e.g. vomiting, fighting, or other embarrassing things).................................. | 1 | 2 | 3 | 4 | 5 |
   f. What you would prefer your child to do if he or she is offered alcohol.......................................................... | 1 | 2 | 3 | 4 | 5 |
   g. Ways your child could refuse offers to drink alcohol................................................................. | 1 | 2 | 3 | 4 | 5 |
4. How much can you influence your Year 6 child's decisions about whether or not to smoke cigarettes?

Circle one number only

I have no influence at all......................................................... 1
I can influence my child very little........................................... 2
I can influence my child sometimes........................................ 3
I can influence my child a lot................................................. 4
I am unsure how much I can influence my child...................... 5

(25)

5. How much can you influence your Year 6 child's decisions about whether or not to drink alcohol?

Circle one number only

I have no influence at all......................................................... 1
I can influence my child very little........................................... 2
I can influence my child sometimes........................................ 3
I can influence my child a lot................................................. 4
I am unsure how much I can influence my child...................... 5

(25)

6. How much can you influence your Year 6 child to believe that most young people do not smoke?

Circle one number only

I have no influence at all......................................................... 1
I can influence my child very little........................................... 2
I can influence my child sometimes........................................ 3
I can influence my child a lot................................................. 4
I am unsure how much I can influence my child...................... 5

(27)

7. How much can you influence your Year 6 child to believe that drinking too much alcohol is risky?

Circle one number only

I have no influence at all......................................................... 1
I can influence my child very little........................................... 2
I can influence my child sometimes........................................ 3
I can influence my child a lot................................................. 4
I am unsure how much I can influence my child...................... 5

(28)
The next questions ask about talking with your Year 6 child. By “talking with” we mean both incidental brief comments and also longer conversations.

8. How CONFIDENT are you in your ability to TALK WITH your Year 6 child about the following topics?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Not confident at all</th>
<th>Somewhat confident</th>
<th>Moderately confident</th>
<th>Very confident</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. How many children your child’s age actually smoke cigarettes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. What you would prefer your child to do if he or she is offered a cigarette.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Ways your child could refuse offers of cigarettes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (e.g. vomiting, fighting, or other embarrassing things)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. What you would prefer your child to do if he or she is offered alcohol.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. Ways your child could refuse offers to drink alcohol.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(29-35)

9. When I talk with my Year 6 child about smoking cigarettes and drinking alcohol I will feel...

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Pleased I had done it...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. Like a responsible parent...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. Embarrassed because my child might think my views are out-of-date...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. Sad because my child will not listen to what I say...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e. Stressed because these topics are difficult to talk about...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Worried because I might have said the wrong things...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(36-41)
10. When was the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes?

Circle one number only

0-1 month ago......................................................... 1
2-3 months.............................................................. 2
4-5 months ago.......................................................... 3
I have never talked to my Year 6 child about this............ 4
I don't remember.......................................................... 5

11. Think about the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes. How LONG did the talk last?

Circle one number only

Less than five minutes.................................................. 1
About five minutes......................................................... 2
More than five minutes but less than 10 minutes............. 3
More than 10 minutes....................................................... 4
I have not talked to my Year 6 child about this............ 5
I don't remember.......................................................... 6

12. The LAST time you talked to your Year 6 child about smoking (or not smoking) cigarettes, did you ask for your child’s opinion?

Circle one number only

Yes.............................................................................. 1
No............................................................................... 2
I don't remember.......................................................... 3
I have not talked to my Year 6 child about smoking cigarettes.................................................. 4

13. When you talk with your Year 6 child about smoking (or not smoking) cigarettes, what usually happens?

Circle one number only

I talk and he or she listens................................................ 1
We both talk and we both listen to each other............... 2
A mixture of both of the above.................................... 3
I don’t remember.......................................................... 4
I have not talked with my Year 6 child about cigarettes... 5
14. When was the LAST time you talked with your Year 6 child about drinking (or not drinking) alcohol?

Circle one number only

0-1 month ago. ............................................. 1
2-3 months.................................................. 2
4-5 months ago............................................. 3
I have never talked to my Year 6 child about this........... 4
I don't remember.......................................... 5

15. Think about the LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol. How LONG did the talk last?

Circle one number only

Less than five minutes................................. 1
About five minutes.................................... 2
More than five minutes but less than 10 minutes........ 3
More than 10 minutes.................................. 4
I have not talked to my Year 6 child about this.......... 5
I don't remember........................................ 6

16. The LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol, did you ask for your child's opinion?

Circle one number only

Yes............................................................. 1
No.................................................................. 2
I don't remember......................................... 3
I have not talked to my Year 6 child about alcohol........ 4

17. When you talk with your Year 6 child about drinking (or not drinking) alcohol, what usually happens?

Circle one number only

I talk and he or she listens.................................. 1
We both talk and we both listen to each other......... 2
A mixture of both of the above.......................... 3
I don't remember.......................................... 4
I have not talked with my Year 6 child about alcohol... 5
18. Which of the following topics have you talked about with your Year 6 child? Indicate your answer by writing a number 1, 2 or 3 in all of the boxes below.

Key: 1 = Yes I have talked  2 = No I haven’t talked  3 = I am are unsure

<table>
<thead>
<tr>
<th>Topic</th>
<th>Have you talked about this in the last 4 months?</th>
<th>Have you talked about this in the last 2 weeks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)</td>
<td>[ ] (50)</td>
<td>[ ] (57)</td>
</tr>
<tr>
<td>b. How many children your child’s age actually smoke cigarettes</td>
<td>[ ] (51)</td>
<td>[ ] (58)</td>
</tr>
<tr>
<td>c. What you would prefer your child to do if he or she is offered a cigarette</td>
<td>[ ] (52)</td>
<td>[ ] (59)</td>
</tr>
<tr>
<td>d. Ways your child could refuse offers of cigarettes</td>
<td>[ ] (53)</td>
<td>[ ] (60)</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things)</td>
<td>[ ] (54)</td>
<td>[ ] (61)</td>
</tr>
<tr>
<td>f. What you would prefer your child to do if he or she is offered alcohol</td>
<td>[ ] (55)</td>
<td>[ ] (62)</td>
</tr>
<tr>
<td>g. Ways your child could refuse offers to drink alcohol</td>
<td>[ ] (56)</td>
<td>[ ] (63)</td>
</tr>
</tbody>
</table>

19. In the NEXT TWO MONTHS how likely is it that you will talk with your Year 6 child about the following topics?

Circle one number only on each line

<table>
<thead>
<tr>
<th>Topic</th>
<th>Very likely</th>
<th>Likely</th>
<th>Not likely</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. How many children your child’s age actually smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. What you would prefer your child to do if he or she is offered a cigarette</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Ways your child could refuse offers of cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. What you would prefer your child to do if he or she is offered alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Ways your child could refuse offers to drink alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
The following questions ask about your opinions. Decide whether you agree or disagree with each of the following statements. Circle one number only for each statement.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>There is a lot parents can do to reduce the chances their children will smoke cigarettes...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21.</td>
<td>If parents smoke cigarettes their children are likely to do the same...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22.</td>
<td>Children know their parents' opinions about smoking cigarettes - they don't need to be told again...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23.</td>
<td>Parents who smoke cigarettes should give advice to their children about smoking...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24.</td>
<td>Parents don't need to teach their Year 6 children ways to refuse offers to drink alcohol because the children are too young...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25.</td>
<td>Having clear family rules about cigarettes reduces the chance that children will take up smoking...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26.</td>
<td>Talking with Year 6 children about smoking cigarettes is more important than talking with them about illegal drugs such as heroin...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27.</td>
<td>Parents who drink alcohol should not give advice to their children about drinking alcohol...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28.</td>
<td>Talking with Year 6 children about alcohol makes them curious about drinking...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29.</td>
<td>Talking with Year 6 children about the risks of illegal drugs (such as heroin and amphetamines) is more important than talking with them about the risks of alcohol...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30.</td>
<td>Year 6 is too early for parents to teach their children ways to refuse offers to smoke cigarettes...</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions are about your Year 6 child and cigarettes.

31. **Do you believe your Year 6 child has tried smoking cigarettes?**

   Circle one number only
   
   No... | 1
   Yes - just a few puffs... | 2
   Yes - a whole cigarette... | 3
   Yes - more than a whole cigarette... | 4
   I don't know... | 5

   (82)

32. **Before the end of this year, do you believe your Year 6 child will smoke a cigarette?**

   Circle one number only
   
   No... | 1
   Yes - just a few puffs... | 2
   Yes - a whole cigarette... | 3
   Yes - more than a whole cigarette... | 4
   I don't know... | 5

   (83)
The next questions are about your Year 6 child and alcohol.

By alcohol we mean things like:
- beer, champagne, cider or wine
- fortified wines (Eg, sherry or port) and liqueurs (Eg, Baileys)
- soft drinks or fruit juice that contain alcohol (Eg, alcoholic sodas)
- ready-mixed spirits (Eg, UDL cans)
- spirits (Eg. rum, brandy, vodka, gin, whisky, etc.)

For these questions one drink of alcohol means one whole drink at any one time. Do not add up any sips of alcohol and call this one whole drink. Each one of the drinks below equals one whole drink.

33. Which of the following sentences best describes how much alcohol your Year 6 child has had in his or her whole life?

Note: do not add up sips of alcohol that your child has had on different occasions.

<table>
<thead>
<tr>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>My child has never had a drink of alcohol................................. 1</td>
</tr>
<tr>
<td>My child has only ever had sips of alcohol with the family......................... 2</td>
</tr>
<tr>
<td>My child has had one whole drink of alcohol is his or her life................... 3</td>
</tr>
<tr>
<td>My child has had two to five whole drinks of alcohol in his or her life.............. 4</td>
</tr>
<tr>
<td>My child has had six to 10 whole drinks of alcohol in his or her life............... 5</td>
</tr>
<tr>
<td>My child has had more than 10 whole drinks of alcohol in his or her life........ 6</td>
</tr>
<tr>
<td>I don't know how much alcohol my child has had................................ 7</td>
</tr>
</tbody>
</table>

34. Before the end of this year, will your Year 6 child drink more than sips of alcohol with your family?

(Circle one number only)

<table>
<thead>
<tr>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes........................ 1</td>
</tr>
<tr>
<td>No.......................... 2</td>
</tr>
<tr>
<td>I don't know............. 3</td>
</tr>
</tbody>
</table>
The next questions ask about the Children and Drugs Information Sheets Year 6 students were asked to take home for their parents to read. Each Information Sheet was packed in a big envelope that was personally addressed to a parent. Each sheet was a different colour.

35. How many Information Sheets do you remember receiving?

Circle one number only
None........................................... 1
One............................................. 2
Two............................................. 3
Three......................................... 4
Four........................................... 5
Five........................................... 6
Six............................................. 7
Seven......................................... 8
I don't remember how many I received..... 9

(86)

36. Who read the Information Sheets?

Circle all that apply
Myself............................................. 1
My partner...................................... 1
Children....................................... 1
Another relative............................ 1
A friend....................................... 1
A neighbour.................................... 1
No one......................................... 1
I don't remember............................ 1
Other, please explain...................... 1

(87-95)

37. How much of the content of the Information Sheets did you find useful?

Circle one number only
All of the information was useful.................. 1
Most of the information was useful............... 2
Some of the information was useful............... 3
Very little of the information was useful........ 4
None of the information was useful.............. 5
I can't remember how much of the information was useful... 6
I didn't read any of the Information Sheets........ 7
I don't remember receiving any of the Sheets..... 8

(96)

38. How did you use the information contained in the Information Sheets?

Circle all that apply
To improve my personal knowledge about drugs...................... 1
To remind me to talk with my children about drugs................... 1
To help me talk with my children about drugs....................... 1
To help my partner to talk with the children about drugs........... 1
I don't remember how I used the information......................... 1
I didn't read any of the Information Sheets.......................... 1
I don't remember receiving any of the Information Sheets........... 1
I didn't use any of the information.................................... 1
Other, please explain................................................... 1

(97-105)
Please indicate whether you agree or disagree with the following statements about the Information Sheets.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>39. I liked most things about the sheets.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>40. There were too many sheets.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>41. There were not enough sheets.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>42. The information was too hard to read.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>43. The sheets took too long to read.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>44. The information was relevant for my family.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>45. There was no new information.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>46. The colours made the sheets hard to read.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>47. I would recommend the sheets for other parents.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Read the following descriptions of the Information Sheets and write a number (from the key) in each box to indicate what happened with each sheet. Please note that not all of the Information Sheets described below were sent to all parents.

**Key:**
1 = I read all of this Information Sheet
2 = I read most of this Information Sheet
3 = I read some of this Information Sheet
4 = I read this Information Sheet but I don’t remember how much I read
5 = I saw this Information Sheet but I didn’t read it
6 = I don’t remember receiving this Information Sheet

<table>
<thead>
<tr>
<th>Colour</th>
<th>Title</th>
<th>Description</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>48. Red</td>
<td>The example parents set makes a difference</td>
<td>Ideas on how parents can set an example they are happy for the children to copy as the children get older.</td>
<td></td>
</tr>
<tr>
<td>49. Green</td>
<td>Parents' opinions make a difference</td>
<td>Tips on ways to talk about your opinions with your children.</td>
<td></td>
</tr>
<tr>
<td>50. Blue</td>
<td>How parents get along with their children makes a difference</td>
<td>Suggestions on how parents can develop and maintain a close relationship with a child who is almost a teenager.</td>
<td></td>
</tr>
<tr>
<td>51. Yellow</td>
<td>How parents talk with children makes a difference</td>
<td>Eight tips on how to talk with children about drugs like cigarettes and alcohol.</td>
<td></td>
</tr>
<tr>
<td>52. Orange</td>
<td>What parents talk about makes a difference</td>
<td>A summary of the drug-related topics that all parents should try to talk with their children about.</td>
<td></td>
</tr>
<tr>
<td>53. Purple</td>
<td>Balancing the influence of friends</td>
<td>Suggestions parents could use to try and balance the negative influences of friends.</td>
<td></td>
</tr>
<tr>
<td>54. Pink</td>
<td>Common questions parents ask (with some answers)</td>
<td>Answered common questions parents ask about drugs.</td>
<td></td>
</tr>
</tbody>
</table>
The following questions ask about drug education you have participated in OTHER THAN reading the Children and Drugs coloured Information Sheets.

55. Since the beginning of Term Two this year (April) have you participated in any drug education activities for parents, OTHER THAN reading the Children and Drugs Information Sheets? (For example, meetings at school, reading, etc.)

Circle one number only

No.................................................. 1... Go to question 56
Yes.................................................. 2... Go to question 55b
I can't remember................................. 3... Go to question 56

55b. In which of the following types of drug education for parents did you participate?

Circle all that apply

<table>
<thead>
<tr>
<th>Type of Education</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I attended a drug education presentation at the school. E.g., 'Drugs in Perspective' or Life Education.</td>
<td>1</td>
</tr>
<tr>
<td>I attended a drug education presentation at a venue other than the school. E.g., community centre or church.</td>
<td>1</td>
</tr>
<tr>
<td>I read pamphlets (other than the Children and Drug coloured Information Sheets)</td>
<td>1</td>
</tr>
<tr>
<td>I read information sent home by the school (other than the Children and Drugs coloured Information Sheets).</td>
<td>1</td>
</tr>
<tr>
<td>I read information in magazines or newspapers</td>
<td>1</td>
</tr>
<tr>
<td>I watched a video or television show to educate myself about drugs...</td>
<td>1</td>
</tr>
<tr>
<td>Other, please describe</td>
<td>1</td>
</tr>
</tbody>
</table>

56. Since the beginning of Term two this year (April) have you participated in a parenting skills course?

Circle one number only

No.................................................. 1
Yes.................................................. 2
I can't remember................................. 3

You have reached the end of the survey. Thank you for participating in this research.

Please place the survey in the envelope it came in and return it to the school via your Year 6 child by Monday 6 September 1999. Your child's name will automatically be entered into a draw for one of four $50 vouchers from Woolworths.
CHILDREN AND DRUGS RESEARCH PROJECT
CONFIDENTIAL PARENT SURVEY 2

PLEASE READ THIS INFORMATION BEFORE YOU BEGIN
It is important the person who completed this survey earlier this year completes it again now. Please check whose name is on the front of the envelope. If you were not the person who did this survey last time, please give this survey to the person who was. Also, if you have more than one child in Year 6, please answer the questions with the oldest Year 6 child in mind. Thank you.

1. Are you male or female?
   Circle one number only
   Female.............................................. 1
   Male.............................................. 2

2. What is the relationship between you and your child in Year 6?
   Circle one number only
   I am his/her mother............................ 1
   I am his/her father............................. 2
   I am his/her stepmother....................... 3
   I am his/her stepfather...................... 4
   I am his/her legal guardian............... 5
   Other (Please describe)..................... 6

3. How IMPORTANT is it for you to TALK WITH your Year 6 child about the following?
   Circle one number only on each line

   a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers, etc)................................................................. 1 2 3 4 5
   b. How many children your child’s age actually smoke cigarettes................................................................. 1 2 3 4 5
   c. What you would prefer your child to do if he or she is offered a cigarette................................................................. 1 2 3 4 5
   d. Ways your child could refuse offers of cigarettes................................................................. 1 2 3 4 5
   e. The risks of drinking too much alcohol (e.g. vomiting, fighting, or other embarrassing things)................................................................. 1 2 3 4 5
   f. What you would prefer your child to do if he or she is offered alcohol................................................................. 1 2 3 4 5
   g. Ways your child could refuse offers to drink alcohol................................................................. 1 2 3 4 5
4. **How much can you influence your Year 6 child’s decisions about whether or not to smoke cigarettes?**

   Circle one number only
   
   I have no influence at all. ....................................................... 1
   I can influence my child very little........................................ 2
   I can influence my child sometimes....................................... 3
   I can influence my child a lot.............................................. 4
   I am unsure how much I can influence my child...................... 5

(26)

5. **How much can you influence your Year 6 child’s decisions about whether or not to drink alcohol?**

   Circle one number only
   
   I have no influence at all. ....................................................... 1
   I can influence my child very little........................................ 2
   I can influence my child sometimes....................................... 3
   I can influence my child a lot.............................................. 4
   I am unsure how much I can influence my child...................... 5

(26)

6. **How much can you influence your Year 6 child to believe that most young people do not smoke?**

   Circle one number only
   
   I have no influence at all. ....................................................... 1
   I can influence my child very little........................................ 2
   I can influence my child sometimes....................................... 3
   I can influence my child a lot.............................................. 4
   I am unsure how much I can influence my child...................... 5

(27)

7. **How much can you influence your Year 6 child to believe that drinking too much alcohol is risky?**

   Circle one number only
   
   I have no influence at all. ....................................................... 1
   I can influence my child very little........................................ 2
   I can influence my child sometimes....................................... 3
   I can influence my child a lot.............................................. 4
   I am unsure how much I can influence my child...................... 5

(28)
The next questions ask about talking with your Year 6 child. **By “talking with” we mean both incidental brief comments and also longer conversations.**

8. **How CONFIDENT are you in your ability to TALK WITH your Year 6 child about the following topics?**

   Circle one number only on each line

<table>
<thead>
<tr>
<th></th>
<th>Not confident at all</th>
<th>Somewhat confident</th>
<th>Moderately confident</th>
<th>Very confident</th>
<th>Unsure</th>
</tr>
</thead>
</table>
   a. The risks of smoking cigarettes (e.g. bad breath, addiction, cancers) | 1 | 2 | 3 | 4 | 5 |
   b. How many children your child's age actually smoke cigarettes | 1 | 2 | 3 | 4 | 5 |
   c. What you would prefer your child to do if he or she is offered a cigarette | 1 | 2 | 3 | 4 | 5 |
   d. Ways your child could refuse offers of cigarettes | 1 | 2 | 3 | 4 | 5 |
   e. The risks of drinking too much alcohol (e.g. vomiting, fighting, or other embarrassing things) | 1 | 2 | 3 | 4 | 5 |
   f. What you would prefer your child to do if he or she is offered alcohol | 1 | 2 | 3 | 4 | 5 |
   g. Ways your child could refuse offers to drink alcohol | 1 | 2 | 3 | 4 | 5 |

(29-35)

9. **When I talk with my Year 6 child about smoking cigarettes and drinking alcohol I will feel...**

   Circle one number only on each line

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
</table>
   a. Pleased I had done it | 1 | 2 | 3 | 4 | 5 |
   b. Like a responsible parent | 1 | 2 | 3 | 4 | 5 |
   c. Embarrassed because my child might think my views are out-of-date | 1 | 2 | 3 | 4 | 5 |
   d. Sad because my child will not listen to what I say | 1 | 2 | 3 | 4 | 5 |
   e. Stressed because these topics are difficult to talk about | 1 | 2 | 3 | 4 | 5 |
   f. Worried because I might have said the wrong things | 1 | 2 | 3 | 4 | 5 |

(36-41)
10. When was the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes?

   Circle one number only
   0-1 month ago........................................... 1
   2-3 months............................................. 2
   4-5 months ago........................................ 3
   I have never talked to my Year 6 child about this.......... 4
   I don't remember....................................... 5

   (42)

11. Think about the LAST time you talked with your Year 6 child about smoking (or not smoking) cigarettes. How LONG did the talk last?

   Circle one number only
   Less than five minutes.................................. 1
   About five minutes...................................... 2
   More than five minutes but less than 10 minutes........... 3
   More than 10 minutes................................... 4
   I have not talked to my Year 6 child about this.......... 5
   I don't remember....................................... 6

   (49)

12. The LAST time you talked to your Year 6 child about smoking (or not smoking) cigarettes, did you ask for your child's opinion?

   Circle one number only
   Yes.......................................................... 1
   No.......................................................... 2
   I don't remember....................................... 3
   I have not talked to my Year 6 child about smoking cigarettes........................................... 4

   (44)

13. When you talk with your Year 6 child about smoking (or not smoking) cigarettes, what usually happens?

   Circle one number only
   I talk and he or she listens.......................... 1
   We both talk and we both listen to each other......... 2
   A mixture of both of the above....................... 3
   I don't remember..................................... 4
   I have not talked with my Year 6 child about cigarettes.... 5

   (46)
14. When was the LAST time you talked with your Year 6 child about drinking (or not drinking) alcohol?

Circle one number only

- 0-1 month ago ......................................................... 1
- 2-3 months .......................................................... 2
- 4-5 months ago ....................................................... 3
- I have never talked to my Year 6 child about this .......... 4
- I don't remember ................................................... 5

15. Think about the LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol. How LONG did the talk last?

Circle one number only

- Less than five minutes ........................................... 1
- About five minutes ................................................ 2
- More than five minutes but less than 10 minutes .......... 3
- More than 10 minutes .............................................. 4
- I have not talked to my Year 6 child about this .......... 5
- I don't remember ................................................... 6

16. The LAST time you talked to your Year 6 child about drinking (or not drinking) alcohol, did you ask for your child’s opinion?

Circle one number only

- Yes ......................................................................... 1
- No .......................................................................... 2
- I don’t remember ..................................................... 3
- I have not talked to my Year 6 child about alcohol ....... 4

17. When you talk with your Year 6 child about drinking (or not drinking) alcohol, what usually happens?

Circle one number only

- I talk and he or she listens ......................................... 1
- We both talk and we both listen to each other .......... 2
- A mixture of both of the above ................................ 3
- I don’t remember ..................................................... 4
- I have not talked with my Year 6 child about alcohol ... 5
18. Which of the following topics have you talked about with your Year 6 child? Indicate your answer by writing a number 1, 2 or 3 in all of the boxes below.

<table>
<thead>
<tr>
<th></th>
<th>Have you talked about this in the last 4 months?</th>
<th>Have you talked about this in the last 2 weeks?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>How many children your child's age actually smoke cigarettes</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>What you would prefer your child to do if he or she is offered a cigarette</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Ways your child could refuse offers of cigarettes</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>The risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things)</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>What you would prefer your child to do if he or she is offered alcohol</td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>Ways your child could refuse offers to drink alcohol</td>
<td></td>
</tr>
</tbody>
</table>

19. In the NEXT TWO MONTHS how likely is it that you will talk with your Year 6 child about the following topics?

<table>
<thead>
<tr>
<th></th>
<th>Very Likely</th>
<th>Likely</th>
<th>Not Likely</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>The risks of smoking cigarettes (e.g. bad breath, addiction, cancers)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b.</td>
<td>How many children your child's age actually smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c.</td>
<td>What you would prefer your child to do if he or she is offered a cigarette</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d.</td>
<td>Ways your child could refuse offers of cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e.</td>
<td>The risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f.</td>
<td>What you would prefer your child to do if he or she is offered alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>g.</td>
<td>Ways your child could refuse offers to drink alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
The following questions ask about your opinions. Decide whether you agree or disagree with each of the following statements. Circle one number only for each statement.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>There is a lot of parents can do to reduce the chances their children will smoke cigarettes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>If parents smoke cigarettes their children are likely to do the same.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>Children know their parents' opinions about smoking cigarettes - they don't need to be told again.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>Parents who smoke cigarettes should give advice to their children about smoking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>Parents don't need to teach their Year 6 children ways to refuse offers to drink alcohol because the children are too young.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>Having clear family rules about cigarettes reduces the chance that children will take up smoking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26.</td>
<td>Talking with Year 6 children about smoking cigarettes is more important than talking with them about illegal drugs such as heroin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27.</td>
<td>Parents who drink alcohol should not give advice to their children about drinking alcohol.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>Talking with Year 6 children about alcohol makes them curious about drinking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29.</td>
<td>Talking with Year 6 children about the risks of illegal drugs (such as heroin and amphetamines) is more important than talking with them about the risks of alcohol.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30.</td>
<td>Year 6 is too early for parents to teach their children ways to refuse offers to smoke cigarettes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The following questions are about your Year 6 child and cigarettes.

31. **Do you believe your Year 6 child has tried smoking cigarettes?**

   Circle one number only

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1</td>
</tr>
<tr>
<td>Yes - just a few puffs.</td>
<td>2</td>
</tr>
<tr>
<td>Yes - a whole cigarette.</td>
<td>3</td>
</tr>
<tr>
<td>Yes - more than a whole cigarette.</td>
<td>4</td>
</tr>
<tr>
<td>I don't know.</td>
<td>5</td>
</tr>
</tbody>
</table>

32. **Before the end of this year, do you believe your Year 6 child will smoke a cigarette?**

   Circle one number only

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1</td>
</tr>
<tr>
<td>Yes - just a few puffs.</td>
<td>2</td>
</tr>
<tr>
<td>Yes - a whole cigarette.</td>
<td>3</td>
</tr>
<tr>
<td>Yes - more than a whole cigarette.</td>
<td>4</td>
</tr>
<tr>
<td>I don't know.</td>
<td>5</td>
</tr>
</tbody>
</table>
The next questions are about your Year 6 child and alcohol.

By alcohol we mean things like:
- beer, champagne, cider or wine
- fortified wines (Eg, sherry or port) and liqueurs (Eg, Baileys)
- soft drinks or fruit juice that contain alcohol (Eg, alcoholic sodas)
- ready-mixed spirits (Eg, UDL cans)
- spirits (Eg. rum, brandy, vodka, gin, whisky, etc.)

For these questions one drink of alcohol means one whole drink at any one time. Do not add up any sips of alcohol and call this one whole drink.
Each one of the drinks below equals one whole drink.

![](image)

33. Which of the following sentences best describes how much alcohol your Year 6 child has had in his or her whole life?

**Note:** do not add up sips of alcohol that your child has had on different occasions.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>My child has never had a drink of alcohol</td>
<td>1</td>
</tr>
<tr>
<td>My child has only ever had sips of alcohol with the family</td>
<td>2</td>
</tr>
<tr>
<td>My child has had one whole drink of alcohol is his or her life</td>
<td>3</td>
</tr>
<tr>
<td>My child has had two to five whole drinks of alcohol in his or her life</td>
<td>4</td>
</tr>
<tr>
<td>My child has had six to 10 whole drinks of alcohol in his or her life</td>
<td>5</td>
</tr>
<tr>
<td>My child has had more than 10 whole drinks of alcohol in his or her life</td>
<td>6</td>
</tr>
<tr>
<td>I don't know how much alcohol my child has had</td>
<td>7</td>
</tr>
</tbody>
</table>

34. Before the end of this year, will your Year 6 child drink more than sips of alcohol with your family?

(Circle one number only)

| Yes                        | 1                      |
| No                         | 2                      |
| I don't know              | 3                      |
35. Since the beginning of Term Two this year (April) have you participated in any drug education activities for parents, OTHER THAN reading the Children and Drugs coloured Information Sheets? (For example, meetings at school, reading, etc.)

Circle one number only
No........................................ 1... Go to question 36
Yes........................................ 2... Go to question 35b
I can't remember..................... 3... Go to question 36

35b. In which of the following types of drug education for parents did you participate?

Circle all that apply

<table>
<thead>
<tr>
<th>Type of Education</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I attended a drug education presentation at the school. E.g., ‘Drugs in Perspective’ or Life Education</td>
<td>1</td>
</tr>
<tr>
<td>I attended a drug education presentation at a venue other than the school. E.g., community centre or church</td>
<td>1</td>
</tr>
<tr>
<td>I read pamphlets (other than the Children and Drug coloured Information Sheets)</td>
<td>1</td>
</tr>
<tr>
<td>I read information sent home by the school (other than the Children and Drugs coloured Information Sheets)</td>
<td>1</td>
</tr>
<tr>
<td>I read information in magazines or newspapers</td>
<td>1</td>
</tr>
<tr>
<td>I watched a video or television show to educate myself about drugs...</td>
<td>1</td>
</tr>
<tr>
<td>Other, please describe...</td>
<td>1</td>
</tr>
</tbody>
</table>

36. Since the beginning of Term two this year (April) have you participated in a parenting skills course?

Circle one number only
No........................................ 1
Yes........................................ 2
I can't remember..................... 3

You have reached the end of the survey. Thank you for participating in this research.

Please place the survey in the envelope it came in and return it to the school via your Year 6 child by Monday 6 September 1999. Your child’s name will automatically be entered into a draw for one of four $50 vouchers from Woolworths.
Appendix 14

Randomised Comparison Trial:
Student follow-up questionnaire
Practice Question

Which of the following is not a state of Australia?

Circle one number only

Western Australia.............................. 1
Queensland................................. 2
Tasmania........................................ 3
New Zealand................................. 4
Victoria......................................... 5
I don't know................................. 6

1. Which parent talks with you about smoking (or not smoking) cigarettes?

You can circle more than one number

My mother................................. 1
My father................................. 1
My stepmother............................... 1
My stepfather............................... 1
Neither of my parents...................... 1
My guardian.................................. 1

2. Which parent talks with you the MOST about smoking (or not smoking) cigarettes?

Circle one number only

My mother................................. 1
My father................................. 2
My stepmother............................... 3
My stepfather............................... 4
My guardian.................................. 5
Someone else............................... 6
(Please describe who this is)
3. Which parent talks with you about drinking (or not drinking) alcohol?

You can circle more than one number

My mother ........................................... 1
My father ........................................... 1
My stepmother ..................................... 1
My stepfather ....................................... 1
Neither of my parents ............................ 1
My guardian ....................................... 1

(23-28)

4. Which parent talks with you the MOST about drinking (or not drinking) alcohol?

Circle one number only

My mother ........................................... 1
My father ........................................... 2
My stepmother ..................................... 3
My stepfather ....................................... 4
My guardian ....................................... 5
Someone else ....................................... 6
(Please describe who this is)

(29)

5. OVERALL, who talks with you the MOST about cigarettes and alcohol?

Choose an adult who you live with most of the time.

Circle one number only

My mother ........................................... 1
My father ........................................... 2
My stepmother ..................................... 3
My stepfather ....................................... 4
My guardian ....................................... 5
Someone else ....................................... 6
(Please describe who this is)

(30)

THE REST OF THE QUESTIONS ARE ABOUT YOU AND YOUR MOTHER

PLEASE ANSWER THE REST OF THE QUESTIONS WITH THIS PERSON IN MIND
6. In the LAST TWO WEEKS, which of the following topics has this person talked about with you?  

Circle one number only on each line  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Has this person talked with you about the risks of smoking cigarettes (for example, bad breath, addiction, cancers, etc)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Has this person talked with you about how many children your age actually smoke cigarettes?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Has this person talked with you about what he or she wants you to do if you are offered a cigarette?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Has this person talked with you about ways you could refuse offers to smoke cigarettes?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. Has this person talked with you about the risks of drinking too much alcohol (for example, vomiting, fighting or other embarrassing things)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f. Has this person talked with you about what he or she wants you to do if you are offered alcohol?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>g. Has this person talked with you about ways you could refuse offers to drink alcohol?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

(31-37)

7. When was the LAST time this person talked with you about smoking (or not smoking) cigarettes?  

Circle one number only  

<table>
<thead>
<tr>
<th></th>
<th>0-1 month ago</th>
<th>2-3 months ago</th>
<th>4-5 months ago</th>
<th>He or she has never talked to me about this</th>
<th>I don't remember</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(38)
8. Think about the last time this parent talked with you about smoking (or not smoking) cigarettes. How LONG did the talk last?

   Circle one number only
   Less than five minutes........................................ 1
   About five minutes............................................. 2
   More than five minutes but less than 10 minutes... 3
   More than 10 minutes........................................ 4
   He or she has not talked to me about this.............. 5
   I don’t remember............................................... 6

9. The LAST time this person talked with you about smoking (or not smoking) cigarettes, did he or she ask you for your opinion?

   Circle one number only
   Yes................................................................. 1
   No........................................................................... 2
   I don’t remember................................................. 3
   He or she has not talked to me about smoking cigarettes............................................. 4

10. When this person talks with you about smoking (or not smoking) cigarettes, what usually happens?

    Circle one number only
    He or she talks and I listen................................. 1
    We both talk and we both listen to each other...... 2
    A mixture of both of the above............................ 3
    I don’t remember................................................. 4

11. When was the LAST time this person talked with you about drinking (or not drinking) alcohol?

    Circle one number only
    0-1 month ago.................................................... 1
    2-3 months ago.................................................. 2
    4-5 months ago.................................................. 3
    He or she has never talked to me about this........... 4
    I don’t remember............................................... 5
12. Think about the last time this person talked with you about drinking (or not drinking alcohol). How LONG did the talk last?

Circle one number only

Less than five minutes ............................................. 1
About five minutes .................................................. 2
More than five minutes but less than 10 minutes .... 3
More than 10 minutes ................................................ 4
He or she has not talked to me about this .......... 5
I don’t remember ..................................................... 6

13. The LAST time this person talked with you about drinking (or not drinking) alcohol, did he or she ask you for your opinion?

Circle one number only

Yes .................................................................................. 1
No ................................................................................. 2
I don’t remember ......................................................... 3
He or she has not talked to me about drinking alcohol ..................................................... 4

14. When this person talks with you about drinking (or not drinking) alcohol, what usually happens?

Circle one number only

He or she talks and I listen ............................................. 1
We both talk and we both listen to each other ... 2
A mixture of both of the above .................................. 3
I don’t remember ..................................................... 4

15. OVERALL, who talks with you the MOST about cigarettes and alcohol?

Choose an adult who you live with most of the time.

Circle one number only

My mother .......................................................... 1
My father ............................................................ 2
My stepmother .................................................... 3
My stepfather ....................................................... 4
My guardian ........................................................ 5
Someone else ....................................................... 6
(Please describe who this is)

No one ................................................................. 7
16. **In the NEXT TWO MONTHS how likely is it that this person will talk with you about the following topics?**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Very Likely</th>
<th>Likely</th>
<th>Not Likely</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (for example, bad breath, addiction, cancers, etc)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. How many children your age actually smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. What he or she wants you to do if you are offered a cigarette</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Ways you could refuse offers to smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (for example, vomiting, fighting or other embarrassing things)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. What he or she wants you to do if you are offered alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Ways you could refuse offers to drink alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

(47-58)

17. **Which of the following topics would you like to talk about with this person?**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The risks of smoking cigarettes (for example, bad breath, addiction, cancers, etc)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. How many children your age actually smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. What he or she wants you to do if you are offered a cigarette</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>d. Ways you could refuse offers to smoke cigarettes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>e. The risks of drinking too much alcohol (for example, vomiting, fighting or other embarrassing things)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>f. What he or she wants you to do if you are offered alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>g. Ways you could refuse offers to drink alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

(54-80)
The next questions are about cigarettes and are more personal. Neither your teacher or parents will see your answers.

18. Have you ever smoked a cigarette?

<table>
<thead>
<tr>
<th>Choice</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1</td>
</tr>
<tr>
<td>Yes - just a few puffs.</td>
<td>2</td>
</tr>
<tr>
<td>Yes - I have smoked a whole cigarette</td>
<td>3</td>
</tr>
<tr>
<td>Yes - I have smoked more than a whole cigarette.</td>
<td>4</td>
</tr>
</tbody>
</table>

19. Before the end of this year, do you think you will smoke a cigarette?

<table>
<thead>
<tr>
<th>Choice</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>1</td>
</tr>
<tr>
<td>Yes - just a few puffs.</td>
<td>2</td>
</tr>
<tr>
<td>Yes - I will smoke a whole cigarette</td>
<td>3</td>
</tr>
<tr>
<td>Yes - I will smoke more than a whole cigarette.</td>
<td>4</td>
</tr>
<tr>
<td>I don’t know.</td>
<td>5</td>
</tr>
</tbody>
</table>

20. How many Year 6 students in your class do you think have tried smoking cigarettes (even just a few puffs)?

<table>
<thead>
<tr>
<th>Choice</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of them.</td>
<td>1</td>
</tr>
<tr>
<td>A few of them.</td>
<td>2</td>
</tr>
<tr>
<td>About half of them.</td>
<td>3</td>
</tr>
<tr>
<td>Most of them.</td>
<td>4</td>
</tr>
<tr>
<td>All of them.</td>
<td>5</td>
</tr>
<tr>
<td>I don’t know.</td>
<td>6</td>
</tr>
</tbody>
</table>

21. Before the end of this year, how many Year 6 students in your class do you think will smoke cigarettes (even just a few puffs)?

<table>
<thead>
<tr>
<th>Choice</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of them.</td>
<td>1</td>
</tr>
<tr>
<td>A few of them.</td>
<td>2</td>
</tr>
<tr>
<td>About half of them.</td>
<td>3</td>
</tr>
<tr>
<td>Most of them.</td>
<td>4</td>
</tr>
<tr>
<td>All of them.</td>
<td>5</td>
</tr>
<tr>
<td>I don’t know.</td>
<td>6</td>
</tr>
</tbody>
</table>
The next questions are about alcohol and are personal. Remember, neither your teacher or parents will see your answers.

By alcohol we mean things like:
- beer, champagne, cider or wine
- fortified wines (e.g. sherry or port) and liqueurs (e.g. Baileys)
- soft drinks or fruit juice that contain alcohol (e.g. alcoholic sodas)
- ready-mixed spirits (e.g. UDL cans)
- spirits (e.g. rum, brandy, vodka, gin, whisky, etc.)

For these questions one drink of alcohol means one whole drink at any one time. Do not add up any sips of alcohol you may have had and call this one whole drink. Each one of the drinks below equals one whole drink.

- 1 MIDDY (285 mL) Full-strength Beer (4-6% alcohol/volume)
- 1 SMALL GLASS (100 mL) Wine (10-14% alcohol/volume)
- 1 GLASS (60 mL) Fortified Wine (Port, sherry) (17-19% alcohol/volume)
- 1 SHOT (30 mL) Spirits (37-43% alcohol/volume)

22. In your whole life, how much alcohol have you had? Circle one number only
   - I have never had a drink of alcohol............................................. 1
   - I have only ever had sips of alcohol with my family ...................... 2
   - I have had one whole drink of alcohol in my life.......................... 3
   - I have had two to five whole drinks of alcohol in my life............... 4
   - I have had six to ten whole drinks of alcohol in my life.............. 5
   - I have had more than 10 whole drinks of alcohol in my life...... 6

23. Before the end of this year, do you think you will drink more than sips of alcohol with your family?
   Circle one number only
   - Yes............................................. 1
   - No............................................. 2
   - I don't know......................... 3

The End
Thank you for doing this survey
Appendix 15

Randomised Comparison Trial:
Parent second follow-up questionnaire
1. In the LAST TWO MONTHS have you talked with your Year 6 child about the following topics? (Circle one answer only for each topic)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. the risks of smoking cigarettes (e.g. bad breath, addiction, cancer)</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>b. how many children your child's age actually smoke cigarettes</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>c. when you would prefer your child to do</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>if he or she is offered a cigarette?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. ways your child could refuse offers of cigarettes</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>e. the risks of drinking too much alcohol (e.g. vomiting, fighting or other embarrassing things)</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>f. what you would prefer your child to do if he or she is offered alcohol?</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>g. ways your child could refuse offers to drink alcohol</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

2. Are you male or female? (Circle one number only)

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

3. What is the relationship between you and your child in Year 6? (Circle one number only)

   | I am his/her mother | 1 |
   | I am his/her father | 2 |
   | I am his/her stepmother | 3 |
   | I am his/her stepfather | 4 |
   | I am his/her legal guardian | 5 |
   | Other (Please describe) | 6 |

4. Would you like to receive a summary of the findings of the Children and Drugs Research Project? (Please note that this will not be available until Autumn 2000)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Please put this postcard in the mail by the last Friday of this term [17 December 1999].
Appendix 16

Randomised Comparison Trial:
Newsletter item for school Principals
A message for parents who have a child in Year 6

Shelley Beatty (the Coordinator of the Children and Drugs research study that is being undertaken by the Centre for Health Promotion Research at Curtin University) has asked us to thank the parents of our Year 6 students for participating in this important study. She said that the response from parents was wonderful. The study aims to help parents talk with children about drugs and has been conducted in 20 primary schools in Perth in 1999. Over 1500 parents and their Year 6 children have been involved. The results of this research will be made available to parents in 2000.

All parents who returned the second survey were placed into a draw for one of four $50 shopping vouchers from Woolworths. Parents from Ballajura, Connolly, Forest Crescent and Marangaroo Primary School won these vouchers.

Ms Beatty has asked us to remind parents who received the final postcard survey to complete the four questions on the back of the postcard and place the postcard in the mail. If parents do not wish to complete the questions they should still put the postcard in the mail. Parents who return the postcard survey by 17 December will go into the draw for one of six $50 vouchers from Coles.

Further information can be obtained by contacting Ms Beatty (Phone 9266 2752, fax 9266 2958 or email beatty.s@health.curtin.edu.au).
Appendix 17

Randomised Comparison Trial:
Teacher questionnaire
Thank you for participating in the Parent Drug Education Research Project. This study is being conducted by the Centre for Health Promotion Research at Curtin University. The aim of this research has been to help parents talk with their children about drugs. The purpose of this survey is to collect feedback from school staff about how the research has been conducted.

I have asked you to identify your name and school on the front page of this survey. This is to ensure I have your consent to be in this evaluation. When you return this survey the front page will be separated from your responses. This survey has an identification code. This is to allow me to match the information you provide with the surveys completed by your students and their parents. All identifying information will remain strictly confidential.

This survey will take approximately 10 minutes to complete. When you have finished please return it in the reply-paid envelope provided. All teachers who return the survey by Friday 26 November 1999 will go in a draw for one of four $50 Coles shopping vouchers.

If you have any questions about the survey, please contact Shelley Beatty (telephone 9266 2752, fax 9266 2958 or e-mail beattys@health.curtin.edu.au).

Thank you for your help.

Shelley Beatty MPH
Research Coordinator

CONSENT OF SCHOOL STAFF MEMBER (Please print)

I have read the above information about this study and any questions I have asked have been answered to my satisfaction.

__________________________________________ of
First name   Surname

__________________________________________ School name

agree to participate in this research study, realising that I may withdraw at any time without prejudice. I agree that the research data gathered by this survey may be published, provided my name and the school's name is not used.

__________________________________________ Signature

__________________________________________ Date
1. **What is your role at the school?**
   - Teacher of Year 6 students: 1
   - Deputy Principal and a teacher of Year 6 students: 2
   - Other, please describe: 3

2. **What is the Year level/s of the class you teach in 1999?**
   - Year 6 only: 1
   - Split Year 5/6: 2
   - Split Year 6/7: 3
   - Other, please describe: 4

3a. **Have you been teaching this class all this year?**
   - Yes: 1. Go to question 4
   - No: 2. Go to question 3b

3b. **When did you start teaching this class?**
   - Term 2: 1
   - Term 3: 2
   - Term 4: 3
   - Other, (please describe): 4
4. Approximately how many drug education classroom lessons have your Year 6 students received since the beginning of Term two ('Drug education' includes alcohol, tobacco, medicines, etc.)?

<table>
<thead>
<tr>
<th>Option</th>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1</td>
</tr>
<tr>
<td>One or two 30 minute lessons</td>
<td>2</td>
</tr>
<tr>
<td>Three or four 30 minute lessons</td>
<td>3</td>
</tr>
<tr>
<td>Five or six 30 minute lessons</td>
<td>4</td>
</tr>
<tr>
<td>Seven or eight 30 minute lessons</td>
<td>5</td>
</tr>
<tr>
<td>More than eight 30 minute lessons</td>
<td>6</td>
</tr>
<tr>
<td>Unsure</td>
<td>7</td>
</tr>
</tbody>
</table>

5. What is your teaching status in 1999?

<table>
<thead>
<tr>
<th>Option</th>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>1</td>
</tr>
<tr>
<td>Part time/tandem</td>
<td>2</td>
</tr>
<tr>
<td>Other, (please describe)</td>
<td>3</td>
</tr>
</tbody>
</table>

6. Including this year, for how many years have you been teaching?

Write in the box below

[ ] years

7. What is your sex?

<table>
<thead>
<tr>
<th>Option</th>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
</tr>
</tbody>
</table>

8. What is your age?

<table>
<thead>
<tr>
<th>Option</th>
<th>Circle one number only</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29 years</td>
<td>1</td>
</tr>
<tr>
<td>30-39 years</td>
<td>2</td>
</tr>
<tr>
<td>40-49 years</td>
<td>3</td>
</tr>
<tr>
<td>50-59 years</td>
<td>4</td>
</tr>
<tr>
<td>60 years and over</td>
<td>5</td>
</tr>
</tbody>
</table>
9. The following statements are about providing drug education for parents. Please indicate how important you consider each statement to be by writing a number from the key below in each box.

Key:  
1 = Very important  
2 = Somewhat important  
3 = Not important  
4 = Unsure

Write one number in each box

a. Involving parents in the school drug education curriculum.................  

b. Providing drug educational materials for parents at the same time their children are learning about drugs in school.................................  

c. Providing parents of Year 6 children with information about how to talk with their child about alcohol.........................................................  

d. Providing parents of Year 6 children with information about how to talk with their child about cigarettes.........................................................  

c. Trying to discover an effective way of providing drug education for parents.................................................................................................

10. Read the following questions and write a number from the key below to indicate your answer.

Key:  
1 = Yes  
2 = No  
3 = I don't know  
4 = I don't remember

Write one number in each box

a. Since the beginning of Term two this year, have Year 6 students in your class been given any drug education information or activities for parents other than those provided by Curtin University as part of the Children and Drugs Project?.........................................................  

b. Since the beginning of Term two this year, have parents of Year 6 students in your class been invited to attend a drug education evening or seminar at the school?.................................................................  

(17-21)
11a. Do you recall receiving class sets of large envelopes marked "Children and Drugs" from Curtin University for distribution to parents of your Year 6 students?

Circle one number only

Yes.......................... 1....  Go to question 11b
No................................ 2....  Go to question 12
Unsure......................... 3....  Go to question 12

11b. Were these envelopes distributed to your Year 6 students?

Circle one number only

Yes.......................... 1....  Go to question 11c
No................................ 2....  Go to question 12
Unsure......................... 3....  Go to question 12

11c. How many of the sets of Children and Drugs envelopes were distributed to your Year 6 students? (Note: There were five sets of envelopes to distribute)

Circle one number only

Five sets...................... 1
Four sets..................... 2
Three sets.................... 3
Two sets...................... 4
One set....................... 5
Unsure....................... 6

(24)

(25)

(26)
12. Please indicate your level of satisfaction with the following aspects of the parent Drug Education Research Project by writing a number from the key below in each box.

Key: 1=Very satisfied  2=Satisfied  3=Dissatisfied  4=Very dissatisfied  5=Unsure

Write one number in each box

a. How the materials for parents were packaged (ie, in large envelopes personally addressed to each parent).

b. Time required to distribute the parent materials to students.

c. Time required to collect materials from students (ie, feedback sheets from parents and surveys from parents).

d. Incentives provided for students (ie, stickers and raffle prizes)

e. The instructions given about how to distribute the materials (ie memos for teachers)

f. Written communication from the researcher (ie, memos, faxes, Updates/newsletters)

g. School visits by the researcher.

(27-33)

13. The following statements are about the sustainability of the Parent Drug Education Research Project. Please indicate the extent to which you agree or disagree with each statement by writing a number from the key below in each box.

Key: 1=Strongly agree  2=Agree  3=Neither agree nor disagree  4=Disagree  5=Strongly disagree  6=Unsure

Write one number in each box

a. I think the Children and Drugs Information Sheets would work well in other primary schools.

b. I would encourage my school to use the Children and Drugs Information Sheets for next year's Year 6 parents.

c. Distributing the Children and Drugs Information Sheets takes too much time to include them as part of our normal drug education curriculum.

(34-36)
14. Would you participate in this project again?

Circle one number only

Yes.......................... 1...... Go to question 16.

No........................... 2...... Go to question 16.

Yes, in a modified form..... 3...... Go to question 15.

Unsure.......................... 4...... Go to question 16.

15. Which aspects of this project would you keep the same or change?  (Circle one number for each aspect listed below. If you recommend a change, please write your suggestions in the space provided.)

<table>
<thead>
<tr>
<th></th>
<th>Keep the same</th>
<th>Unsure</th>
<th>Change</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Informing parents first</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>b.</td>
<td>Providing five drug education Information Sheets for parents to read</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>c.</td>
<td>The timing of the five Information Sheets for parents (i.e. one Information Sheet every three weeks for 15 weeks)</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>d.</td>
<td>Providing incentives for students to deliver Information Sheets to parents</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>e.</td>
<td>Providing incentives for parents to participate</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>f.</td>
<td>Personally addressing envelopes to each participating parent</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>g.</td>
<td>Including feedback sheets for parents to complete</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>h.</td>
<td>Providing incentives for teachers</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>i.</td>
<td>Teachers distribute materials to students who deliver them to their parents</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>j.</td>
<td>Teachers collect feedback sheets from parents</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>k.</td>
<td>Providing teachers with class lists to keep track of returned materials</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
<tr>
<td>l.</td>
<td>Providing teachers with newsletters to keep them informed of progress</td>
<td>1</td>
<td>2</td>
<td>3 →</td>
</tr>
</tbody>
</table>
Please read the following statements and then circle the most appropriate response for each statement.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Always</th>
<th>Sometimes</th>
<th>Never</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I like to be one of the first in my school to try a new idea.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b.</td>
<td>I'm always looking for something new for the parents of my students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c.</td>
<td>I enjoy being the first in my school to try something new.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d.</td>
<td>I prefer using materials, programs and strategies I have used in the past.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e.</td>
<td>I prefer to try new materials for parents after seeing other teachers successfully use them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f.</td>
<td>I usually go along with most of my colleagues' recommendations about what materials to provide to parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g.</td>
<td>I prefer to try new materials for parents after other teachers have said they are worthwhile.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h.</td>
<td>I wait until I am required by the school or EDWA before I send drug education material home for parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>i.</td>
<td>Pressure from others is the only reason I would send drug education materials home for parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>j.</td>
<td>I prefer to wait until a new approach is thoroughly tested before trying it myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>k.</td>
<td>I like to try new health/drug education ideas for parents that I hear or read about.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>l.</td>
<td>If I don't know what to do I am comfortable asking someone for advice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>m.</td>
<td>I am uncomfortable using parent education materials that I have not used before.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>n.</td>
<td>I only use tried and true methods for educating the parents of my students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

(50-63)
17a. Do you recall receiving a set of post cards marked “Children and Drugs” from Curtin University for distribution to parents of your Year 6 students? (Please note that only some schools were randomly selected to distribute the post cards.)

Circle one number only

Yes.............................. 1.... Go to question 17b

No............................... 2.... Go to question 18

Unsure.......................... 3.... Go to question 18

17b. Were these postcards distributed to your Year 6 students?

Circle one number only

Yes.............................. 1

No............................... 2

Unsure.......................... 3

18. This has been a research project aimed to evaluate the use of self-help materials (ie, Information Sheets) as a way to help parents to talk to their children about drugs. Given you have participated in this research, can you suggest another way/s of helping parents to talk to their children about drugs?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

(66-67)

You have reached the end of this survey. Thank you for supporting this research. Please place this survey in the reply-paid envelope provided and return it by Friday 26 November 1999 to go into the draw for one of four $50 shopping vouchers from Coles.
Appendix 18

Randomised Comparison Trial:
Parent feedback sheet
**Feedback Sheet:**

*Tell Us What You Thought*

Please complete the questions below and return this page to your Year 6 child’s teacher by Monday 9 August.

1. **How much of this pamphlet did you read?**  
   (Circle one number only)  
   - I read all of it.......................... 1  
   - I read some of it........................ 2  
   - I read none of it....................... 3  

2. **How much of this pamphlet did you like?**  
   (Circle one number only)  
   - I liked all of it.......................... 1  
   - I liked some of it........................ 2  
   - I liked none of it....................... 3  

3. **How much of this pamphlet did you find useful?**  
   (Circle one number only)  
   - All of it.................................. 1  
   - Some of it................................ 2  
   - None of it................................. 3  

4. **How many of the strategies described in the pamphlet have you tried with your Year 6 child?**  
   (Circle one number only)  
   - All of them................................ 1  
   - Some of them.............................. 2  
   - None of them............................. 3  

5. **Do you want to be entered in the draw for a $50 shopping voucher from Coles?**  
   (Circle one number only)  
   - Yes........................................ 1  
   - No......................................... 2  

Please re-use the envelope to return this page to the school. The coloured pamphlet is yours to keep. Do not return the pamphlet to the school.

(«ID»/«School»/«Teacher»/Wk 1/Book «First pref»)
Appendix 19

Randomised Comparison Trial:
Validity feedback sheet
EXPERT PANEL INTERVENTION FEEDBACK SHEET

1. In your opinion, is the information in this booklet correct?
   Yes ☐   No ☐

   If you answered ‘No’, please indicate which information is incorrect on the draft of the booklet.

2. Should any information be added to or deleted from this booklet?
   Yes ☐   No ☐

   If you answered ‘Yes’, please indicate which information could be added or deleted on the draft of the booklet.

3. Are the activities/tasks for parents included suitable?
   Yes ☐   No ☐
If you answered ‘No’, please indicate which activities could be changed on the draft of the booklet.

4. **Could the title of the booklet be improved?**

   Yes ☐   No ☐

   If you answered ‘Yes’, please write any suggestion on the draft of the booklet.

5. **Is the information free from gender bias and stereotypes?**

   Yes ☐   No ☐

   If you answered ‘No’, please indicate what information could be changed on the draft of the booklet.

6. **Do you have any other general comments on this booklet?** For example, length, tone, use of jargon, suitability for parents, etc?

   Yes ☐   No ☐
If you answered “Yes”, please write any additional comments and/or suggestions on the draft of the booklet or on the back of this page.
Appendix 20

Randomised Comparison Trial:
Reliability letter to parents
Parent Drug Education Research Project

As you know, the aim of this project is to help parents talk with their children about drugs. During term two, the parents of your Year 6 children will be provided with some pamphlets to read. The pamphlets contain information about things parents can do to try and protect their children from being harmed by drugs.

During term two, your Year 6 students will take home one pamphlet every two weeks. These pamphlets will be provided by the Centre for Health Promotion Research at Curtin University. You will also receive a copy of the pamphlets so you know what parents are getting.

The parents of your Year 6 children are being offered a choice regarding which pamphlets they would like to read.

What to do

1. Distribute the enclosed envelopes to your Year 6 students. Ask the students to deliver the envelope to the person to whom the envelope is addressed. (The envelopes are personally addressed to the person each student chose when they completed the student survey recently.) A copy of the letter being sent to parents is enclosed for your information. If a student in your class does not have an envelope to deliver, it is because they arrived at the school after this research project began or their parents did not consent to their involvement.

2. Collect the parents' replies and have them ready at the front office for collection on Thursday 1 April.

3. Praise each student who returns the sheet from their parents and give him or her two stickers (enclosed).

More information

If you would like more information please contact me (telephone 9266 2752 or e-mail beatty@health.curtin.edu.au or fax 9 266 2958)

Shelley Beatty
Project Coordinator
22 March 1999
To the «Parent_competed» of «First» «Surname»

CHILDREN AND DRUGS

Thank you for continuing to take part in the children and Drugs Project. During term three your child Year 6 will bring home some pamphlets for you to read. An important part of this research is to find out how parents feel about these pamphlets. Therefore, I need to contact some parents by phone to collect this information. If you agree to this and your name is randomly selected I will phone sometime during term four. You would only be contacted once for a brief telephone interview. The interview would take approximately three minutes.

Please tick one of the boxes below and return this page to your Year 6 child’s teacher by Thursday June.

I am happy to be contacted ............ □ I do not wish to be contacted ....... □

Please provide your contact details in the chart below

<table>
<thead>
<tr>
<th>Your first name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Your surname</td>
<td></td>
</tr>
<tr>
<td>Your telephone number</td>
<td></td>
</tr>
<tr>
<td>The best time to call (Eg, dinner, evening, etc.)</td>
<td></td>
</tr>
<tr>
<td>Your signature</td>
<td></td>
</tr>
</tbody>
</table>

I need as many parents as possible to agree to be contacted and I hope you can help me. If you would like more information, please contact me (telephone 9266 2752 or e-mail beattys@health.curtin.edu.au or fax 9266 2958)

Yours sincerely

Shelley Beatty
Project Coordinator
Monday 31 May 1999
«ID»/«School»/«Teacher»
Appendix 21

Randomised Comparison Trial:
Telephone interview protocol
### Introduction:
Hello, may I speak to the _______________ of
(parent who completed pre-test)
______________________________?
(student)

My name is Shelley Beatty. I work in the Centre for Health Promotion Research at Curtin University.

### Explanation:
As you probably already know, I am conducting a study designed to help parents talk with their children about drugs.

In April I sent a letter home with your Year 6 child asking your permission to phone you about pamphlets we have been sending to you and other parents. At the time you signed the permission form and gave your phone number.

### Confirm Consent:
Would it be okay for me to take three minutes of your time now to ask you seven brief questions?
Questionnaire:

1. What is your relationship to ____________? (student's name)

   I am his/her mother.................. 1
   I am his/her father............... 2
   I am his/her stepmother............. 3
   I am his/her stepfather.......... 4
   I am his/her legal guardian........ 5
   Other (Please describe)............ 6

2. In the last two weeks did your child in Year 6 bring home a Children and Drugs pamphlet for you to read?

   Yes | 1 | Go to Q 3 | Go to Q 4 | Code
   ---|---|-----------|-----------|---
   No | 2 | Prompt see * | End of interview |
   Can't remember | 3 | Prompt see * | End of interview |

* Your child in Year 6 was given an envelope addressed to the _________ of _____________. The envelope contained a _________ pamphlet and a feedback sheet.

Thank you for your time.

End of interview
3. What colour was this pamphlet? __________________________

If correct go to question 4.

If incorrect or can’t remember - prompt with the colour.

If still can’t remember, thank them for their time and explain your child in Year 6 was given an envelope addressed to the _________ of __________.
The envelope contained a __________ pamphlet and a feedback sheet.

End of interview.

I will now read you some questions that have a choice of three answers. Please choose one of the answers for each question.

4. How much of this pamphlet did you read?

<table>
<thead>
<tr>
<th>I read all of it</th>
<th>1</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>I read some of it</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I read none of it</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

5. How much of this pamphlet did you like?

<table>
<thead>
<tr>
<th>I liked all of it</th>
<th>1</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>I liked some of it</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I liked none of it</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

6. How much of this pamphlet did you find useful?

<table>
<thead>
<tr>
<th>All of it</th>
<th>1</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some of it</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None of it</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

7. How many of the strategies described in the pamphlet have you tried with your Year 6 child?

<table>
<thead>
<tr>
<th>All of them</th>
<th>1</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some of them</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>None of them</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your time.
End of interview