

School of Allied Health

# **The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum**

by

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This thesis is presented  
to fulfil the requirements for the degree of  
Doctor of philosophy  
of  
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## DECLARATION

I certify that to the best of my knowledge and belief, this thesis does not:

- Incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education.
- Contain any material previously published or written by another person except where due reference is made in the text.
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This thesis contains published work and work prepared for publication, some of which has been co-authored. The bibliographical details of published work and statements of contribution are presented in the preface for each paper.

The work involved in designing the studies described in this thesis was performed primarily by Bahareh Afsharnejad (PhD scholar). The thesis outline and randomised controlled design was developed and executed by the PhD scholar in consultation with Professor Sonya Girdler, Dr. Marita Falkmer, Professor Sven Bölte and Dr. Belinda Craig (the scholar's supervision team). Dr. Belinda Craig left the team in 2016. Dr. Melissa Black then joined the supervisory team in 2020. The PhD scholar was responsible for participant recruitment, data collection, data management, data analysis and preparing manuscripts.

The candidate drafted the original thesis, with Professor Sonya Girdler, Dr. Marita Falkmer, Melissa Black and Professor Sven Bölte providing feedback on drafts until the examinable version was finalised.

Bahareh Afsharnejad

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## **DEDICATION**

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## STATEMENT OF CONTRIBUTION

All authors have validated the nature and extent of the intellectual input by the candidate and co-authors:

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## **ABSTRACT**

Adolescence is a time marked by puberty and transition from childhood to adulthood characterised by exploration of one's identity within their everyday social context. Socialising and developing relationships with peers becomes increasingly important during this period, shaping their identity and assisting youth in finding their role in the world. Like their neurotypical (NT) peers, autistic adolescents have a strong desire to develop meaningful social relationships. However, persistent challenges in the domains of social interaction and communication can limit their socialisation and opportunities for practising their social skills. In the long term, limited socialisation opportunities can significantly affect autistic adolescents' mental health, further decreasing their participation in major life areas when transitioning to adulthood (e.g., education, employment, and independent living).

Consistent with international reports, Australia has an estimated overall population prevalence rate of 0.8% (1 in 125) for autism spectrum disorder (ASD), representing a 25% increase from 2015 to 2018. According to the Australian Government's National Disability Insurance Scheme (NDIS), autistic individuals are the largest category of health service consumers, making up 29% of those accessing their services. Nearly half of autistic individuals accessing the NDIS (45%) are between 10 and 19 years of age, indicating an unprecedented demand for evidence-based services supporting autistic youth. Social skills group training (SSGT) interventions are amongst the most frequently used interventions for autistic individuals. Aiming to improve social competence, SSGT is usually delivered weekly to a small group of participants with average or above-average cognitive abilities across twelve 90-minute sessions. Despite the variety of SSGT interventions currently available to autistic youth, there is a lack of evidence-based SSGT interventions for Australian autistic adolescents. The efficacy of existing SSGT interventions has been appraised primarily via parents' proxy reports of their child's social knowledge and skills compared to either waitlist or no-treatment control groups. These limitations highlight the need to capture autistic adolescents self-reported improvements of social competence and clarify whether perceived progress stems from learning and

practising social skills as part of an SSGT or results simply from being exposed to a supportive social context.

The overall aim of this thesis was to investigate the efficacy of an SSGT, KONTAKT®, in supporting autistic adolescents to achieve their personally meaningful social goals within an Australian context. Due to the complexity of SSGT interventions, this thesis utilised the Medical Research Council (MRC) framework to guide its three phases: development, feasibility and evaluation.

Employing a systematic review and meta-analysis, Phase I (development) synthesised recent studies exploring the efficacy of the SSGT assessed via a randomised controlled trial (RCT) design. Findings demonstrated that although these interventions have modest effects in improving autistic adolescents' social skills, the designs of the studies evaluating these interventions had notable limitations. Additionally, the level of intervention fidelity (the extent to which interventions were delivered as intended) was unclear, limiting the findings' reliability and validity. These limitations likely constrained the generalisation of research findings to clinical contexts, highlighting the need for more rigorous research examining the efficacy of SSGT programs (Chapter 2).

Our review of the literature highlighted that KONTAKT® was a manualised evidence-based SSGT intervention delivered to autistic youth, demonstrating efficacy in the Swedish context. Given that the cultures of Sweden and Australia share broad similarities, being western cultures with European origins, it was anticipated that KONTAKT® would demonstrate similar efficacy in Australian autistic youth as it had previously in Swedish autistic youth. However, it was recognised that cultural norms significantly influence social skills and appropriate behavioural norms and that any attempt to evaluate an SSGT program in another country should initially consider the cross-cultural transferability of the intervention.

In line with this stance, and following translation of the KONTAKT® manuals to English, Phase II assessed the feasibility and cross-cultural acceptability of KONTAKT® to 17 Australian autistic youth across sixteen 90-minute sessions (Chapter 3). Findings

demonstrated the acceptability of the intervention and robustness of the measurement framework in Australian autistic youth, with only minor cultural modifications required.

Phase III focused on evaluating the efficacy of KONTAKT® via a pragmatic, two-armed RCT design. A total of 90 autistic adolescents were randomised to receive either KONTAKT® or an active control group (an interactive cooking group of the same dosage, Super Chef) to control for the effect of social context (Chapter 4). Both groups were delivered within a community service provider setting, employing an adolescent-centric approach to capture autistic adolescents' social performance (Chapter 5). Findings indicated that although exposure to a socially supportive group context may be beneficial to autistic adolescents, sustained improvement in social competence may depend on receiving explicit social skills training. Overall, KONTAKT® was more efficacious in supporting autistic adolescents in achieving their personally meaningful social goals than the active control group. During the RCT, the feasibility of the experience sampling method (ESM), a novel approach for collecting autistic adolescents' emotional states, was explored (Chapter 6). This proof-of-concept study demonstrated the feasibility of ESM in autistic adolescents and suggested that autistic adolescents accurately report their emotional states as referenced by their parents.

Interviews were subsequently conducted with adolescents in the KONTAKT® group and their parents. These interviews provided an in-depth understanding of the program's perceived social benefits and the participants' views of the intervention's content and structure (Chapter 7). Findings revealed that both adolescents and their parents were satisfied with the program, noting improvements in adolescents' social understanding, communication and relationships while being more empowered dealing with a social context. These findings reiterated the benefits observed from the primary and secondary outcome measures.

Overall, this thesis makes a unique contribution to research, demonstrating that explicit SSGT shows great efficacy in improving Australian autistic youth's social outcomes compared to an interactive control cooking group. Given the current

unprecedented growth in the number of Australian youth diagnosed with ASD, delivering an evidence-based SSGT intervention focussing on improving their social outcomes is not only timely, but a social imperative. This thesis's findings also highlighted the importance of taking a systematic approach to assessing SSGT via a holistic adolescent-centric approach, utilising a standardised multi-informant measurement framework complemented by qualitative methods while accounting for possible adverse events. This thesis finally concluded that maintaining methodological rigour while delivering an SSGT in a community-based setting is possible, adding substantial knowledge to this field.

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## LIST OF ABBREVIATIONS

AA	Autistic adolescents
AC	Autistic children
AAWA	Autism Association of Western Australia
ABA	Applied behaviour analysis
ABAS-II	Adaptive Behaviour Assessment System - version II
ABS	Australian Bureau of Statistics
ADHD	Attention deficit hyperactivity disorder
ADI-R	Autism Diagnostic Interview-Revised
ADOS	Autism Diagnostic Observation Schedule
ADOS-2	Autism Diagnostic Observation Schedule - 2nd edition
AIHW	Australian Institute of Health and Welfare
AKQ	Autism Knowledge Questionnaire
ANCOVA	Analysis of covariance
ANOVA	Analysis of variance
ANZCTR	Australian New Zealand Clinical Trials Registry
AOI	Areas of interest
APA	American Psychiatric Association
APA (Style)	American Psychological Association
AS	Asperger syndrome
ASBS	Adolescent Social Behaviour Scale
ASD	Autism spectrum disorder
ASDS	Asperger Syndrome Diagnostic Scale
ASSQ	Autism Spectrum Screening Questionnaire

AUD	Australian Dollars
BDI	Beck Depression Inventory
CASI-Anx	Child and Adolescent Symptom Inventory-4 - Anxiety scale
CASS	Contextual Assessment of Social Skills
CBCL	Child Behaviour Checklist
CBT	Cognitive behaviour therapy
CDI	Child Depression Inventory
CGI-S	OSU Autism Clinical Global impression–Severity
CHU9D	Child Health Utility 9D
CiS	Children in Stress
CNV	Copy number variations
Con	Control group
CONSORT	Consolidated Standards of Reporting Trials
CSIE	Circumplex Scale of Interpersonal Efficacy
DCA	Deductive Content analysis
DD-CGAS	Developmental Disabilities Children’s Global Assessment
DIKJ	Depressioninventar fur Kinder- und Jugendliche
DSM-5	Diagnostic and Statistical Manual of Mental Disorders - Version 5
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders - Version 4
EHWA-VABS	Korean version of the Vineland Adaptive Behaviour Scale
EQ	Emotion Quotient
ERP	Event-related potential
ERSSQ	Emotion Regulation and Social Skills Questionnaire
ES	Effect size

ESM	Experience sampling method
Exp	Experiment group
F	Female
FQS	Friendship Qualities Scale
G	Group sessions
GAS	Goal attainment scaling
HLM	Hierarchical linear modelling
HR	High responder
IBM	International Business Machines
ICC	Intraclass correlation
ICD-10	International Statistical Classification of Diseases and Related Health Problems - 10 <sup>th</sup> Edition
ICER	Incremental Cost-Effectiveness Ratio
ICF	International Classification of Functioning, Disability and Health
ICF-CY	International Classification of Functioning, Disability and Health–Child and Youth
IF	Intervention fidelity
In	Individual sessions
IQ	Intelligence quotient
K-BIT	Kaufman Brief Intelligence Scale
LR	Low responder
LSDQ	Loneliness and Social Dissatisfaction Questionnaire
M	Male
MANOVA	Multivariate Analysis of Variance
MASSI	Multimodal Anxiety and Social Skill Intervention

MDD	Major depression disorder
MFD	Memory for faces - Delayed
MFI	Memory for faces - Immediate
MQ	Methodological Quality
MRC	Medical Research Council
NDIS	National Disability Insurance Scheme
NEQ	Negative Incidents and Effects of Psychological Treatment
NR	Not reported
NT	Neurotypical
NTA	Neurotypical adolescents
OCD	Obsessive-compulsive disorder
PAA	Parent of autistic adolescent
PALS	Perth Aloneness Scale
PARS	Pediatric Anxiety Rating Scale
PDD-NOS	Pervasive developmental disorder - Not otherwise specified
PedsQL™- 4.0	Pediatric Quality of life Inventory - Fourth edition
PEERS®	Program for the Education and Enrichment of Relationship Skills
PIP	The Peer Interaction Paradigm
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis
PSS	Perceived Stress Scale
PwP	PEERS® with peers
QALY	Quality-Adjusted Life Years
QoL	Quality of life

QPQ	Quality of Play Questionnaire
QSQ	Quality of Socialization Questionnaire
R	Research team
RCT	Randomised controlled trial
RED	Remote Eye-Tracker Device
R-UCLA	Revised UCLA Loneliness Scale
SA	Social anxiety
SCQ	Social Communication Questionnaire
SDAC	Survey of Disability, Aging and Carers
SDARI	Sociodramatic Affective Relational Intervention
SDQ	Strength and Difficulties Questionnaire
SIAS	Social Interaction Anxiety Scale
SIOS	Social Interaction Observation System
SMCS	Social Motivation and Competencies Scale
SMI	SensoMotoric Instruments
SPSS	Statistical Package for the Social Sciences
SRS	Social Responsiveness Scale
SRS-2	Social Responsiveness Scale - Second edition
SSGT	Social skills group training
SSIS	Social Skills Improvement Scale
SSRS	Social Skills Rating System
STAI-C	The Trait Anxiety Inventory - Children
START	Social Tools and Rules for Teens
SS	Sample Size



T	Teacher
TASSK-R	Test of Adolescent Social Skills Knowledge - Revised
TD	Typically developing
TIC-P	Treatment Inventory of Costs in Patients
ToM	Theory of mind
TSS-2	Treatment Satisfaction Scale - Second edition
USN	University School of Nashville
WASI	Wechsler Abbreviated Scale of Intelligence
WASI-II	Wechsler Abbreviated Scale of Intelligence - Second edition
WAIS	Wechsler Adult Intelligence Scale
WISC	Wechsler Intelligence Scale for Children



# **CHAPTER 1 - INTRODUCTION**



“Life is a journey that must be travelled, no matter how bad the roads and accommodations.”

-Oliver Goldsmith

## PREFACE

This research was funded by the Stan Perron Charitable Foundation, established in 1978. To date, the foundation has substantially funded hundreds of causes and organisations, aiming to support and improve Western Australian youth’s health and wellbeing (Stan Perron Charitable Trust, n.d.). The generosity of Mr Perron in funding this research made this research possible. It has been a privilege and an honour to have been entrusted with so much.

This thesis explored the efficacy of an evidence-based manualised Social Skills Group Intervention (SSGT), KONTAKT®, to promote Australian autistic adolescents’ social capabilities. Within the thesis, the term ‘autism spectrum disorder (ASD)’ refers to individuals diagnosed with the condition based on the Diagnostic and Statistical Manual for Mental Disorders (5<sup>th</sup> ed.; DSM-5; American Psychiatric Association [APA], 2013). DSM-5 is the most comprehensive and critical resource currently available, updated from a previous version (DSM-IV) published in 1994. Under DSM-IV (APA, 1994), ASD was diagnosed under a number of conditions, including autistic disorder, pervasive developmental disorder-not otherwise specified (PDD-NOS), and Asperger syndrome (AS). As this thesis focused on adolescents as the targeted population, participants were probably diagnosed under both DSM-IV and DSM-5. Despite this variability of terminology, ‘individual with ASD’ has been the most frequently used terminology amongst health professionals (APA, 2013). However, it should be

acknowledged that within the community, there is a debate about how ASD should be described. According to a study seeking autistic people, parents and their broader support network's preferences for describing ASD in the UK, 'autistic individual' has been nominated as the preferred term amongst the autistic population (Kenny et al., 2016). As such, throughout this thesis, the term 'autistic' refers to this group unless otherwise required by the publishing journal.

## STATEMENT OF PROBLEM

### AUTISM SPECTRUM DISORDER

According to the DSM-5, ASD is a lifelong neurodevelopmental condition with symptoms presenting early in childhood, not specific to a particular group and occurring in individuals from all ethnicities, races, and economic groups (APA, 2013). The pillars of ASD as described by DSM-5, are underpinned by ongoing daily challenges in social communication and social interaction, including socio-emotional exchanges, understanding nonverbal communications, and establishing and maintaining relationships across multiple contexts, and restricted, repetitive patterns of behaviour (e.g., physical, verbal/nonverbal, attention, sensory), interest or activities (APA, 2013).

Autism is an extremely heterogeneous condition, with individuals presenting with varying levels of support needs, specified based on the severity of social communication impairment and restricted, repetitive patterns of behaviours (see Figure 1.1). Historically males have been more frequently diagnosed with ASD than females, especially those without cognitive impairment (Dean, 2017). Recent research suggests that this difference was, at least in part, attributable to girls' ability to camouflage their symptoms with compensatory behaviours (Gould, 2017). While Australian children are commonly diagnosed with ASD after 24 months of age (Bent et al., 2020), many individuals are diagnosed later in life. Although ASD symptoms are usually observable from the early years in life, they can be masked by previous strategies one has learned to deal with social situations, contributing to a late diagnosis (APA, 2013). The complexity of ASD and its heterogeneity, the level of parental awareness and concerns, availability of sensitive screening tools, geographic region and sociodemographic and or clinical characteristics can further delay diagnosis (Davidovitch et al., 2015).

**Figure 1.1**

*Severity Levels of Autism Spectrum Disorder (Derived from DSM-5; APA, 2013, p.52)*



*Note.* APA = American Psychiatric Association; DSM-5 = Diagnostic and Statistical Manual for Mental Disorders.

Everyday challenges associated with ASD can significantly affect an individuals' daily functioning across various life areas, including their social context (APA, 2013), making them more susceptible to poor adult psychosocial outcomes, including poor mental health (Cage et al., 2018) and adaptive skills (Kanne & Mazurek, 2011) along with lower self and parent-proxy reported quality of life (Kuhlthau et al., 2011; Sheldrick et al., 2012). Compared to other disabilities, autistic youth are three times less likely to experience independent living and employment and two times less likely to pursue educational qualifications beyond high school (APA, 2013; Australian Bureau of Statistics [ABS], 2019; Ballaban-Gil et al., 1996). These outcomes are even poorer when referenced to their neurotypical (NT) peers, with autistic youth being four times less likely to live independently and eight times less likely to be employed than their NT peers (ABS, 2019).

## **PREVALENCE**

The latest global report in 2010 estimated that 0.76% of the population (1 in 132 people) were diagnosed with ASD (Baxter et al., 2015). More recent reports of the prevalence of ASD from countries such as China (0.4%; Wang et al., 2018) and the USA (2%; Zablotsky et al., 2015) suggest that the prevalence of ASD varies across countries and depends on the year of reporting (Wang et al., 2018). In 2018, ABS reported that about 0.8% of the Australian population were diagnosed with ASD, a 25.1% increase from 2015, with the most significant increase occurring during late adolescence (see Figure 1.2). While males are diagnosed approximately 3.5 times more than females, evidence suggests that females are underdiagnosed because of the differences in their autistic symptomatology (National Disability Insurance Scheme [NDIS], 2020b), including greater subtlety in their social interaction and communication challenges and the ability to mask their symptoms from others (Gould, 2017).

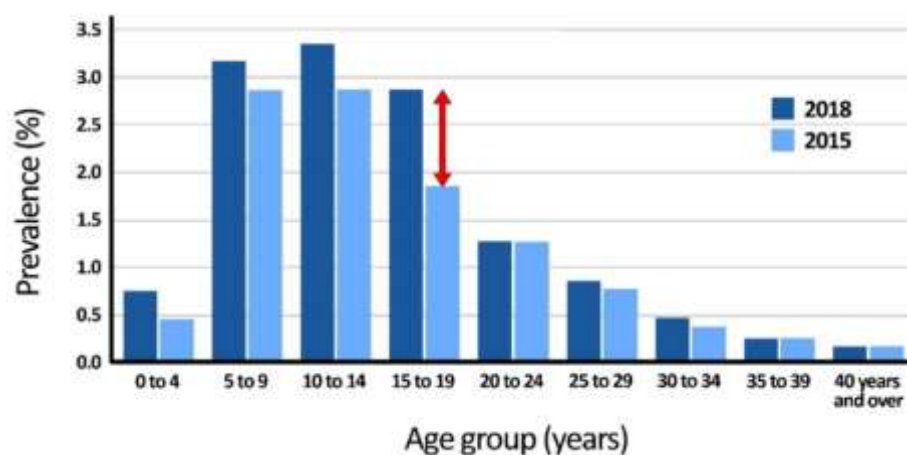
Since 2013, individuals with disabilities, including those who are autistic, have transitioned to receiving funding through the Australian Government's National Disability Insurance Scheme (NDIS, 2020a). This scheme provides funding to support the needs associated with a 'permanent and significant' disability, enabling



individuals and their carers to choose the service provider, goods, or intervention they desire (NDIS, 2020a). Autistic individuals constitute the largest group of health service consumers in Australia, with approximately 29% accessing NDIS services in 2018, having a primary diagnosis of ASD (NDIS, 2020b).

**Figure 1.2**

*Prevalence of Autism Spectrum Disorder in Australia in 2018 and 2015 (ABS, 2019)*



## CO-OCCURRING CONDITIONS

Autistic individuals commonly experience psychiatric symptoms that are not part of their primary diagnosis, with 70% experiencing one and 40% experiencing two or more co-occurring conditions (Antshel et al., 2013). These conditions are mainly observed in domains of either neurodevelopmental conditions such as attention deficit hyperactivity disorder (ADHD; 31-95%; Antshel et al., 2013), developmental coordination disorder (50-73%; Pan et al., 2009) and learning difficulties (6-73%; Ibrahim, 2020) or mental health conditions such as anxiety (11-84%; Van Steensel & Heeman, 2017) and depression (1-76%; Hudson et al., 2019).

Anxiety is one of the most common co-occurring conditions among autistic individuals (Kerns & Kendall, 2012), with many experiencing anxiety in their everyday lives (Van Steensel & Heeman, 2017). Autistic children and adolescents are twice as likely as their NT peers to experience anxiety (Costello et al., 2005). The intensity varies according to age, severity of autistic symptomology, degree of social

challenges, and cognitive abilities (White & Roberson-Nay, 2009). Social anxiety (SA) is the most prevalent type of anxiety among autistic youth (Spain et al., 2018), manifesting as a fear of social situations stemming from a fear of being negatively judged by others, leading to an avoidance of social situations (APA, 2013). For autistic individuals, limitations in their social skills, derived from the hallmark characteristics of ASD coupled with the experience of peer rejection, contribute to the development of SA (Spain & Blainey, 2015). Frequent exposure to anxiety-provoking social situations may condition autistic youth to avoid these situations, decreasing the number of social situations they engage in (Bellini, 2006). Limited exposure to social situations negatively impacts autistic adolescents' opportunities for developing coping and problem-solving strategies, further increasing their SA and avoidance of social contexts, potentially initiating a negative cycle of social withdrawal (Bellini, 2006; White & Schry, 2011).

## **ADOLESCENCE AND SOCIAL DEVELOPMENT**

Adolescence is defined by the transition from childhood to adulthood and is demarcated by the phases of early (ages 10–13 years old), middle (ages 14–17 years old) and late adolescence (age 18 to early twenties; Erikson, 1968). Marking a decade physical (e.g., puberty) and psychological (e.g., the formation of self and identity) (Erikson, 1968) growth, adolescence is a time when individuals discover who they are, how they are different from others and where they fit into their social world (Masten et al., 1995). During this time, youth evaluate their self-worth across various domains (e.g., academic, athletic, appearance and social relations) within their social context and conceptualise their self-concept (DuBois et al., 1998; Smetana et al., 2006). Adolescents draw their self-esteem from their perceptions of parental approval, the support they get from their peers, and their success at school, assisting them in forming new peer relationships and developing their group identity (DuBois et al., 1998; Smetana et al., 2006).

Typically, adolescents spend considerable time with their peers (White & Roberson-Nay, 2009), who influence their academic commitment and prosocial behaviours

(Lynch et al., 2013). During adolescence, peer relationships are often based on belonging to a 'tribe' defined by reputations or stereotypes (e.g., sporty, nerds, brains, popular). An adolescent's perception of their position within these newly formed social networks shapes their identity, establishing new norms which influence their self-esteem (Brown & Larson, 2009). Aligning themselves with peers with similar behaviours, attitudes, and identities, adolescents increasingly value their peers' opinions (Fehr, 2008; McNelles & Connolly, 1992). An adolescent's ability to form close and intimate friendships depends on their social skills, including their ability to initiate social interactions, self-disclose, and support others (Collins, 2002). These skills develop through conversations and engagement in shared activities (Dubois, 1994). During adolescence, intimacy fosters a sense of belonging and self-worth (Erikson, 1968), encouraging self-exploration and identity formation (Buhrmester, 1998). Restricted intimate friendships limit adolescents' chances of practising their social skills to improve their social competence (Bukowski et al., 1996), hampering their opportunities for expanding their interpersonal and intrapersonal relationships (Buhrmester, 1998).

Like their NT peers, autistic youth appreciate and desire intimate friendships but often struggle to make and keep these friends (O'Hagan & Hebron, 2017). During this time, peer relationships between females become more complex maturing to mutual sharing, emotional support and social problem solving (Nichols et al., 2009). In contrast, male peers tend to 'do rather than talk', spending most of their shared time engaged in mutual interest activities (Nichols et al., 2009). It has been suggested that the additional physical, emotional, social and sexual issues experienced by autistic individuals during adolescence may result in fewer meaningful friendships (Cridland et al., 2014).

## **SIGNIFICANCE OF THIS THESIS**

In 2019, the Australian Bureau of Statistics reported that approximately half of the Australian autistic youth experienced profound restrictions in their cognitive, emotional, and communicational skills, impacting their ability to make friends, maintain relationships, interact, or communicate with family, friends, and strangers

or regulate their feelings. The additional challenges faced by autistic youth can make adolescence a particularly stressful time for this group (Bauminger et al., 2003). Limited social interactions may contribute to autistic youth becoming isolated, limiting their opportunities to practise social skills in everyday contexts (Spain & Blainey, 2015). In turn, this may lead to delayed social development, increased negative peer relationship experiences, social failure, anxiety, depression (White et al., 2010; White & Roberson-Nay, 2009) and decreased quality of life (Bauminger et al., 2003). There is a significant need for interventions to improve autistic adolescents' social capabilities, increasing their opportunities to form friendships and improving their mental health and self-esteem (Bollmer et al., 2005; Smetana et al., 2006). Based on the latest reports from the Australian Institute of Health and Welfare (AIHW) in 2017, four out of five autistic individuals accessing the NDIS are under 25 years old. As most interventions and services available through NDIS target children in primary school or younger (NDIS, 2020), older Australian adolescents' needs remain largely unmet, and there remains an urgent need to develop or evaluate evidence-based interventions targeting this age group.

SSGT programs are amongst the most frequently used evidence-based interventions for autistic individuals (Gates et al., 2017). Aimed at promoting autistic youth's social competence (Gates et al., 2017), SSGT is delivered to small groups of 4 to 8 school-aged autistic youth with average or above-average cognitive ability ( $IQ > 70$ ) across a minimum of twelve 90-minute weekly sessions. Previous reviews of studies exploring the efficacy of SSGT via an RCT design have suggested a modest overall effect for improving autistic youth's social skills (Gates et al., 2017; Wolstencroft et al., 2018). Despite using a rigorous approach, these studies have several notable limitations (Gates et al., 2017), restricting their generalisability. To date, the majority of studies assessing the efficacy of SSGT interventions for autistic adolescents have been undertaken outside Australia, with most samples being drawn from middle class European or North American backgrounds (Kumpfer et al., 2002). Culture can significantly impact how a person behaves and interacts within social contexts (Villagran et al., 2012). Due to the lingual and cultural diversity of a country such as Australia, the cross-cultural transferability of SSGT for autistic youth should be

evaluated (Radley et al., 2015). Additionally, appraisals of previous SSGT have relied mainly on parents' proxy-reports, and it did not differentiate whether social gains were related to knowledge, performance or both (Sheldrick et al., 2012).

Given that adolescents are increasing in independence and spend most of their time away from their parents (Carter et al., 2013), neglecting autistic adolescents' self-reported gains from attending SSGT is cause for concern (Gates et al., 2017). Finally, existing evaluations of SSGT have been compared to either waitlist or no-treatment control groups (Gates et al., 2017). As such, it remains unclear whether reported effects were the result of learning and practising social skills or exposure to a supportive social context.

## OVERVIEW OF THE THESIS

Initially, this thesis systematically reviewed the existing SSGT literature, informing an adolescent-centric approach to exploring the efficacy of an SSGT (KONTAKT®), addressing the limited availability of evidence-based SSGT interventions delivered to autistic adolescents within an Australian context. Importantly, this approach captured autistic adolescents' self-perceived changes in their social performance, social knowledge and emotional states while attending an SSGT intervention, utilising the following novel measurement framework:

- Goal attainment scaling (as the primary outcome measure) investigating whether the SSGT supported autistic adolescents in achieving personally meaningful social goals (performance).
- Experience sampling methodology exploring how the intervention influenced the adolescents' daily emotional states during the intervention time and follow-up period (emotional impact).
- Emotion recognition task and eye-tracking, exploring autistic adolescents' changes in emotion recognition skills (knowledge) and gaze behaviours (performance).

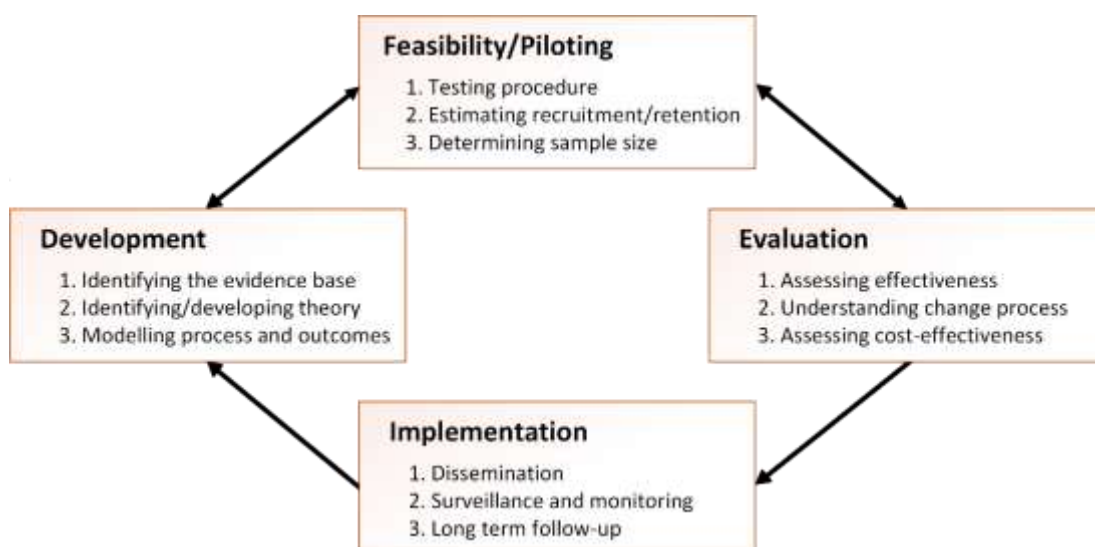
## AIM OF THIS THESIS

The overall aim of this thesis was to explore the efficacy of an SSGT (KONTAKT®), supporting Australian autistic adolescents to improve their social skills evaluated by a *gold standard* approach guided by the Consolidated Standards of Reporting Trials (CONSORT; Moher et al., 2010).

SSGT is a complex intervention comprised of inter-related components such as role-plays, opportunities for practising learned skills and providing reinforcement. As such, evidence aiming to evaluate their efficacy should closely consider issues relating to study design (e.g., setting, sample, time, outcome measures, and type of control group) and intervention delivery (Craig et al., 2008). Given the inherent complexity of SSGT interventions, in evaluating the efficacy of an SSGT such as KONTAKT®, this project was guided by the first three phases of the Medical Research Council (MRC) systematic guidelines for the development, feasibility and piloting and evaluation of complex interventions (Craig et al., 2008). The MRC addresses issues pertaining to the standardisation and delivery of complex interventions while employing appropriate evaluation approaches (Moher et al., 2010; see Figure 1.3).

**Figure 1.3**

*Key Elements of the Development and Evaluation Process of a Complex Intervention (Craig et al., 2008, P. 8)*



## PHASES AND OBJECTIVES OF THIS THESIS

### PHASE 1 - DEVELOPMENT

In meeting the aims of this research, a review of the existing evidence-based literature was deemed necessary to synthesise the current understanding of SSGT interventions and their limitations (Craig et al., 2008). Findings from this review informed a theoretical understanding of previous research's strengths and limitations, including the measurement frameworks employed, informing the modelling of an appropriate design for efficacy evaluation via randomised controlled trial (e.g., sample size, outcome measures; Craig et al., 2008). Research objectives of Phase 1 included:

**Objective 1:** To undertake a systematic literature review and meta-analysis, examining existing SSGT targeting autistic adolescents evaluated via an RCT design. More specifically, the aims were to:

- Understand the similarities and differences between the interventions.
- Systematically assess the methodological quality of interventions.
- Systematically assess the intervention fidelity within each study.
- Explore the outcome measures used in evaluating changes in social outcomes.
- Summarise the overall outcomes and limitations of the interventions.

**Objective 2:** To prepare an SSGT for delivery to autistic adolescent within an Australian context. More specifically, the aims were to:

- Translate and adapt an SSGT (KONTAKT®) to an Australian context.
- To train service providers (health professionals) in delivering the SSGT intervention.

## PHASE 2 - FEASIBILITY AND PILOTING

Building on findings from phase 1, phase 2 focused on assessing the feasibility of the SSGT through testing the measurement framework, estimating recruitment/retention, and determining the sample size needed (Eldridge et al., 2004). Additionally, this phase informed the cross-cultural adaptability and acceptability of the SSGT intervention within an Australian context (Craig et al., 2008). Research objectives of this phase included:

**Objective 3:** To conduct a feasibility study, assessing the cultural appropriateness and acceptability of the SSGT (KONTAKT®). More specifically, the aims were to:

- Assess the robustness of the measurement framework.
- Capture the experience of autistic adolescents, their parents, and the health professionals running the intervention.
- Modify the intervention in preparation for efficacy evaluation in Phase 3 based on the two previous steps.

## PHASE 3 - EVALUATION

Randomised Controlled Trials have long been recognised as the *gold standard* approach in evaluating the efficacy of an intervention (Craig et al., 2008). However, while randomisation limits selection bias (Moher et al., 2010), the reliability of findings from an RCT depends on aspects relating to their design, delivery, and reporting. Employing an active control group in the RCT can further provide valuable information about the efficacy of an intervention such as SSGT (Temple & Ellenberg, 2000). Given this context, Phase 3 undertook a two-armed parallel RCT, evaluating the efficacy of KONTAKT® in comparison to an active control group. The protocol for this study was registered (Australian New Zealand Clinical Registry [ANZCTR] = ACTRN12617001117303; Clinicaltrials.gov = NCT03294668) and published (Chapter 4) prior to completion of the RCT, specifying the primary and secondary outcomes and primary analysis point (Moher et al., 2010). Finally, complementing the efficacy



evaluation of KONTAKT®, a process evaluation provided an in-depth understanding of the experiences and perceptions of autistic adolescents and their parents receiving KONTAKT® (Oakley et al., 2006).

**Objective 4:** To evaluate the efficacy of the SSGT (KONTAKT®) for Australian autistic youth. More specifically, the aims were to:

- Develop an active control group enabling control for a supportive group context (Super Chef).
- Evaluate the efficacy of the SSGT (KONTAKT®) compared to an active control cooking group (Super Chef), supporting autistic adolescents' achievement of their personally meaningful social goals.
- Explore the adverse effects associated with attending the SSGT (KONTAKT®).
- Provide evidence of autistic youth's ability to self-report on their emotions.

**Objective 5:** To assess autistic adolescents and their parents' experiences and perceptions of receiving SSGT within an Australian context, exploring possible facilitators and barriers to its implementation. More specifically, the aims were to:

- Describe autistic adolescents and their parent's experiences with the SSGT (KONTAKT®).
- Explore factors contributing to improved skills post attending the SSGT (KONTAKT®).
- Identify perceived barriers and facilitators of attending the SSGT (KONTAKT®).

## STUDY SETTING

This project was undertaken in partnership with an industry partner, the Autism Association of Western Australia (AAWA). The organisation is Australia's largest

specialist organisation delivering services to autistic Australians across all ages (AAWA, 2020). AAWA is located in Perth, Western Australia and has many metropolitan centres across Perth. In 2019, AAWA supported 7,148 autistic individuals, 20% being school-aged youth. In 2016, AAWA reported high demand for interventions targeting adolescents. Due to the scarcity of evidence-based interventions for this age group in Australia, AAWA partnered with the research team to address this pressing need.

## OVERVIEW OF THE THESIS STRUCTURE

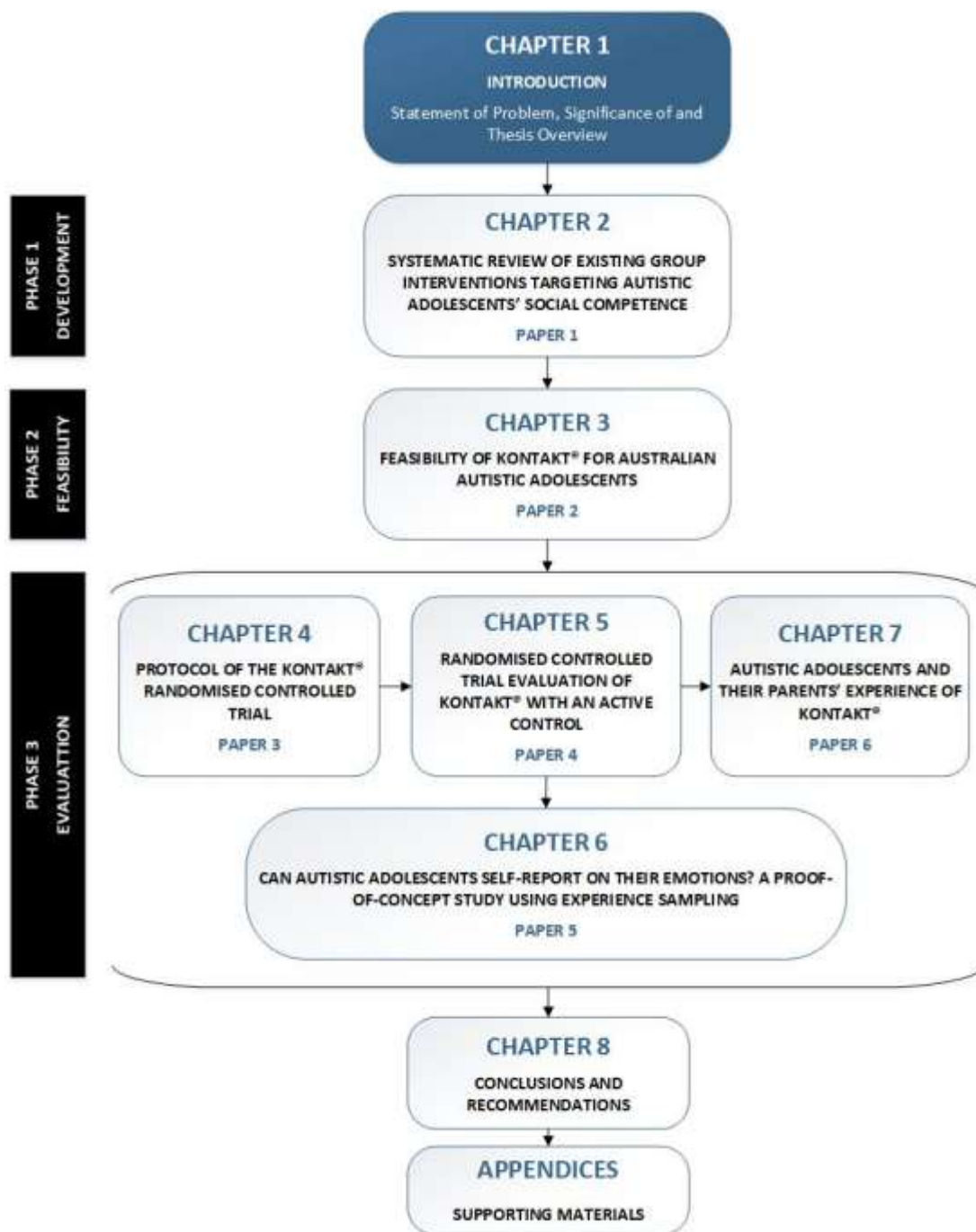
This thesis is delivered in a hybrid format with chapters comprised of papers either published, submitted or awaiting submission (see Table 1.1).

### **Chapter 1 - Introduction**

This chapter depicts an introduction to ASD and adolescence and an overview of the studies' overall objectives in this thesis, including their significance, aims, methodological approach, and contribution, outlining a summarised description of this thesis's eight chapters (see Figure 1.4).

### **Chapter 2 - Systematic Review and Meta-Analysis of Existing Interventions Targeting Autistic Adolescents' Social Competence (Paper 1 - In Preparation)**

This systematic review and meta-analysis explored published research examining the efficacy of SSGT delivered to autistic youth via an RCT design. This chapter aimed to investigate the methodological quality of these studies, their intervention fidelity and the outcome measures used to assess change in social competence, identifying limitations associated with these studies. Paper 1 contributed to this thesis by justifying the necessity of following the CONSORT framework (Moher et al., 2010; Appendix 1) when utilising an adolescent-centric approach to deliver a *gold standard* evaluation of an existing SSGT (KONTAKT®).

**Figure 1.4***The Overall Structure of the Thesis Project***Chapter 3 - Feasibility of KONTAKT® for Australian Autistic Adolescents (Paper 2)**

Employing a single group pretest/posttest design, this chapter aimed to explore the feasibility and cross-cultural adaptability of an SSGT (KONTAKT®) delivered to Australian autistic adolescents in relation to its acceptability, demand,

implementation, practicality, adaptation, integration, expansion, and efficacy (Bowen et al., 2009). Accounting for the influence of context on the evaluation of the SSGT (KONTAKT®; Bernal et al., 2009), Paper 2 contributed to this thesis by capturing stakeholders views (adolescents, parents and trainers) on the cultural modifications required to KONTAKT® before evaluating its efficacy in an RCT.

**Paper 2 - Published in Journal of Autism and Developmental Disorders; Impact Factor 3.047.**

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Lenhard, F., Fridell, A., Coco, C., Milne, K., Chen, N. M. T., Bölte, S., & Girdler, S. (2020). Cross-cultural adaptation to Australia of the KONTAKT® SSGT program for youth with autism spectrum disorder: A feasibility study. *Journal of Autism and Developmental Disorders*.  
<https://doi.org/10.1007/s10803-020-04477-5>

**Chapter 4 - Protocol of the KONTAKT® Randomised Controlled Trial (Paper 3)**

This chapter details the protocol for delivering the RCT evaluating the efficacy of the SSGT (KONTAKT®), entailing design, randomisation process, sample size calculation, active control characteristics, blinding process, primary and secondary outcomes, data collection and data analysis process. Paper 3 contributed to this thesis by preparing the SSGT (KONTAKT®) to be evaluated within an Australian context via a *gold standard* design guided by the CONSORT framework (Moher et al., 2010).

**Paper 3 - Published in Trials; Impact Factor 1.975.**

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Lenhard, F., Fridell, A., Coco, C., Milne, K., Chen, N. M. T., Bölte, S., & Girdler, S. (2019). KONTAKT® for Australian adolescents on the autism spectrum: Protocol of a randomized controlled trial. *Trials*, 20, 687.  
<https://doi.org/10.1186/s13063-019-3721-9>

## **Chapter 5 - Randomised Controlled Trial Evaluation of KONTAKT® With an Active Control (Paper 4)**

This chapter reports on the efficacy of the SSGT (KONTAKT®) supporting Australian autistic adolescents towards achieving their self-reported personally meaningful social goals (primary outcome) and reducing their social anxiety (secondary outcome) in comparison to an interactive control cooking group (Super Chef). Subsequently, the chapter detailed the benefits of exposure to a supportive social context within each group (KONTAKT®/Super Chef). These benefits were demonstrated by the study's outcome measures, including achievement of social goals (primary), social anxiety, autism-related symptoms, interpersonal efficacy, quality of life, emotional states, friendship, gaze patterns and emotion recognition. Paper 4 contributes to this thesis by investigating the efficacy of the SSGT (KONTAKT®) for improving Australian autistic adolescents' social competence while accounting for any possible adverse effects associated with attending such interventions.

### **Paper 4 - Under Review in European Child & Adolescent Psychiatry; Impact Factor 3.74.**

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Fridell, A., Coco, C., Milne, K., Bölte, S., & Girdler, S. (2020). *KONTAKT® SSGT supports autistic adolescents in achieving their personally meaningful social goals: A randomised actively controlled trial* [Unpublished manuscript]. School of Allied Health, Curtin University.

## **Chapter 6 - Can Autistic Adolescents Self-Report on Their Emotions? A Proof-of-Concept Study Using Experience Sampling (Paper 5 - In Preparation)**

Utilising the experience sampling methodology (ESM), this chapter explored the similarities and discrepancies between adolescents' self-reports and their parents' proxy-reports of their emotional states during the RCT. Paper 5 contributed to this thesis by exploring autistic adolescents' ability to reliably self-report their feelings, supporting the application of an adolescent-centric approach for evaluating an SSGT.

## **Chapter 7 - Autistic Adolescents and Their Parents' Experience of KONTAKT® (Paper 6)**

Employing a qualitative approach, this chapter explores the experiences and perceptions of KONTAKT® from the perspectives of autistic adolescents attending the SSGT (KONTAKT®) and their parents, exploring their opinions of the intervention's structure and content and whether it had improved the adolescent's social competence. Paper 6 contributed to the thesis by emphasising the acceptability and efficacy of the SSGT (KONTAKT®) from a consumer perspective, enabling further improvement of the intervention and generalisation of its results to a broader Australian context (Moore et al., 2015).

### **Paper 6 - Under Review by Journal of Autism and Developmental Disorders; Impact Factor 3.047.**

Afsharnejad, B., Falkmer, M., Picen, T., Black, M. H., Alach, T., Fridell, A.,  
Coco, C., Milne, K., Bölte, S., & Girdler, S. (2020). 'I met someone like  
me!': Autistic adolescents and their parent's experience of the  
KONTAKT® social skills group training. *Journal of Autism and  
Developmental Disorders*. [https://doi.org/10.1007/s10803-021-0545-](https://doi.org/10.1007/s10803-021-0545-1)

1

## **Chapter 8 - Conclusions and Recommendations**

This final chapter delivers conclusions derived from summarising and synthesising previous chapters' findings, enabling appraisal of their limitations and strengths and suggesting future research recommendations. This chapter contributed to the existing body of knowledge by highlighting the relevancy of the SSGT (KONTAKT®) for improving autistic youths' social competence if delivered within a community service delivery system, addressing an existing immediate demand for such interventions within an Australian context (NDIS, 2020b).

**Table 1.1***Summary of Research Methods Used in Each Paper*

Paper	Paper 1	Paper 2	Paper 3	Paper 4	Paper 5	Paper 6
Study design	Systematic review and meta-analysis	One group pretest/posttest design; Focus group design	Protocol of RCT	Pragmatic two-armed RCT design with an active control	Experience sampling method	Deductive qualitative approach via semistructured interviews
Description	Evaluating the methodological quality and intervention fidelity of current studies evaluating SSGT interventions via an RCT	Investigating the feasibility and cultural validity of KONTAKT® for Australian autistic adolescents	Detailing the design of the RCT utilised for assessing the efficacy of KONTAKT®	Evaluating the efficacy of KONTAKT® as compared to an active control group (Super Chef)	Exploring similarities and difference of adolescents self and parent proxy-reported emotional states during KONTAKT®	Exploring the lived experiences of autistic adolescents and their parents with KONTAKT®
Sample	$k = 17$ studies	$N = 17$ (AA)	N/A	$N = 90$ (AA) KONTAKT®: $n = 46$ Super Chef: $n = 44$	$N = 63$ (AA and PAA dyads)	KONTAKT®: $n = 34$ (AA); $n = 35$ (PAA)  Super Chef: $n = 27$ (AA); $n = 31$ (PAA)
Data analysis	A meta-analysis of outcomes, assessing the methodological quality	Random effects regression model	N/A	A random-effects regression model	Multilevel analysis	Frequency, content analysis, triangulation

*Note.* This table provides an overview of the papers included in this thesis and their methodology. AA = autistic adolescents; PAA = Parents of autistic adolescents.

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**CHAPTER 2 -  
SYSTEMATIC REVIEW  
OF EXISTING GROUP  
INTERVENTIONS  
TARGETING AUTISTIC  
ADOLESCENTS' SOCIAL  
COMPETENCE**





“We are what we repeatedly do. Excellence, then, is not an act but a habit.”

-Aristotle

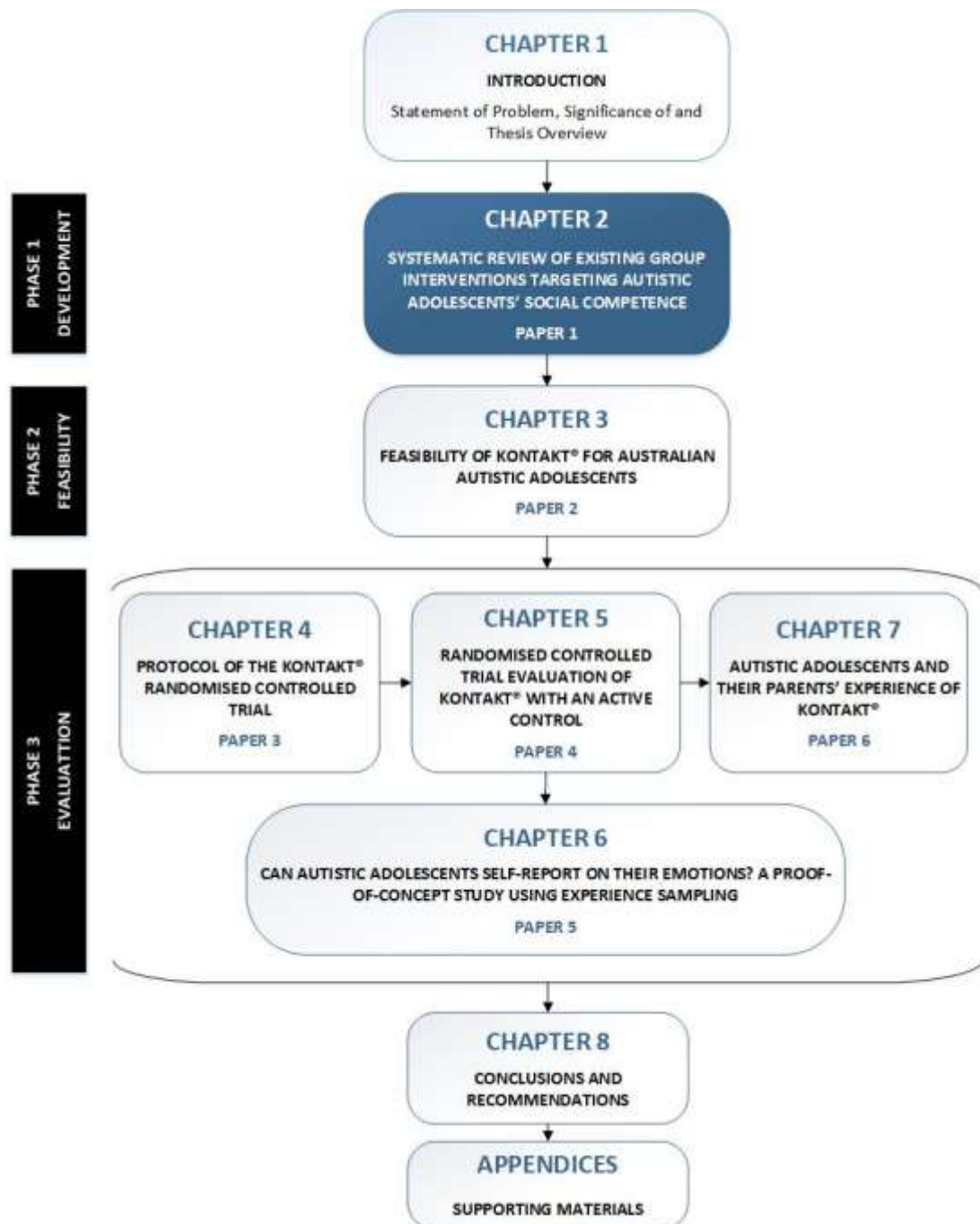
## PREFACE

As described in Chapter 1, the social communication and interaction challenges experienced by autistic youth likely negative impact their opportunities to practice and improve their social skills. In autistic youth, poor social skills can lead to social isolation and withdrawal, increasing their risk of poor mental health outcomes (Bauminger & Kasari, 2003; Bauminger & Shulman, 2003). While various SSGT interventions (Lamash et al., 2019) have been developed with the goal of improving autistic youths' social capabilities and everyday social participation (such as leisure; Carter et al., 2016; Fernandez et al., 2018; Ratcliff et al., 2018) it is difficult to discern from published reports of the efficacy of these programs if these interventions were delivered as initially intended. The evaluation of these programs' efficacy is further complicated by variations in the stated aims of research studies and the wide range of measures employed in assessing outcomes (Gates et al., 2017), making the comparison of effects across SSGT interventions challenging. This chapter addresses these key limitations, presenting a systematic review and meta-analysis of SSGT interventions delivered to autistic youth assessed via RCT design. This systematic review explored the methodological quality of existing SSGT studies, assessing the extent to which they adhered to their initial protocol (fidelity), investigating possible design and intervention limitations. The meta-analyses assessed the impact of SSGT interventions in improving autistic adolescents' autistic symptomology, behavioural/emotional challenges, adaptive functioning and social outcomes.

Findings from this chapter highlighted the need for future research to evaluate the efficacy of SSGT interventions using more rigorous approaches (Moher et al., 2010) and the need to evaluate the fidelity of delivery to intervention protocols.

**Figure 2.1**

*Overview of the Thesis Structure, Chapter 2*



## AUTHOR CONTRIBUTION STATEMENT - CHAPTER 2

As co-authors of the paper entitled, 'A systematic review and meta-analysis of group interventions targeting the social competence of autistic adolescents.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MB, MF, SB);
- Assistance with choosing assessments (SG, MB, MF, SB)
- Assistance with analysis and interpretation (SG, MB, MF, SB)
- Review and editing of the manuscript (SG, MB, MF, SB)

Signature	Sonya Girdler	Date: 11/12/2020
Signature	Marita Falkmer	Date: 11/12/2020
Signature	Sven Bölte	Date: 26/02/2021
Signature	Melissa H. Black	Date: 11/12/2020

**CHAPTER 3 -  
FEASIBILITY OF  
KONTAKT® FOR  
AUSTRALIAN AUTISTIC  
ADOLESCENTS**



“What are you planting today to harvest tomorrow?”

- Lailah Gifty Akita

This chapter presents a paper published in the *Journal of Autism and Developmental Disorders*, **impact factor 3.047**:

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Lenhard, F., Fridell, F., Coco, C., Milne, K., Chen, N. T. M., Bölte, S., & Girdler, S. (2020). Cross-Cultural Adaptation to Australia of the KONTAKT® Social Skills Group Training Program for Youth with Autism Spectrum Disorder: A Feasibility Study. *Journal of Autism and Developmental Disorders*, [HTTPS://DOI.ORG/10.1007/S10803-020-04477-5](https://doi.org/10.1007/s10803-020-04477-5)

## PREFACE

The preceding chapters highlighted the need for evidence-based SSGT interventions to improve the outcomes for autistic adolescents. The systematic review of SSGT interventions (evaluated via an RCT design) presented in Chapter 2 demonstrated that although these interventions demonstrate modest efficacy in improving the social skills knowledge of autistic youth, the body of evidence gained through RCTs demonstrates several notable fidelity and design limitations. Of note is the failure of the majority of SSGT interventions to account for the effect of culture. Socialising is heavily context-based and significantly affected by one’s culture. Any SSGT intervention must account

for this variability. To date, no studies have evaluated SSGT intervention for Australian autistic adolescents. Due to similarities of Australian and European contexts, the purpose of this chapter was first to integrate findings of the previous chapter, informing the adaptation of KONTAKT® for an Australian context. This chapter further presents an assessment of the feasibility of KONTAKT® to Australian autistic adolescents examining its acceptability, demand, implementation, practicality, adaptation, integration, expansion, and preliminary efficacy (Bowen et al., 2009) in assisting Australian autistic adolescents to achieve their personally meaningful social goals.

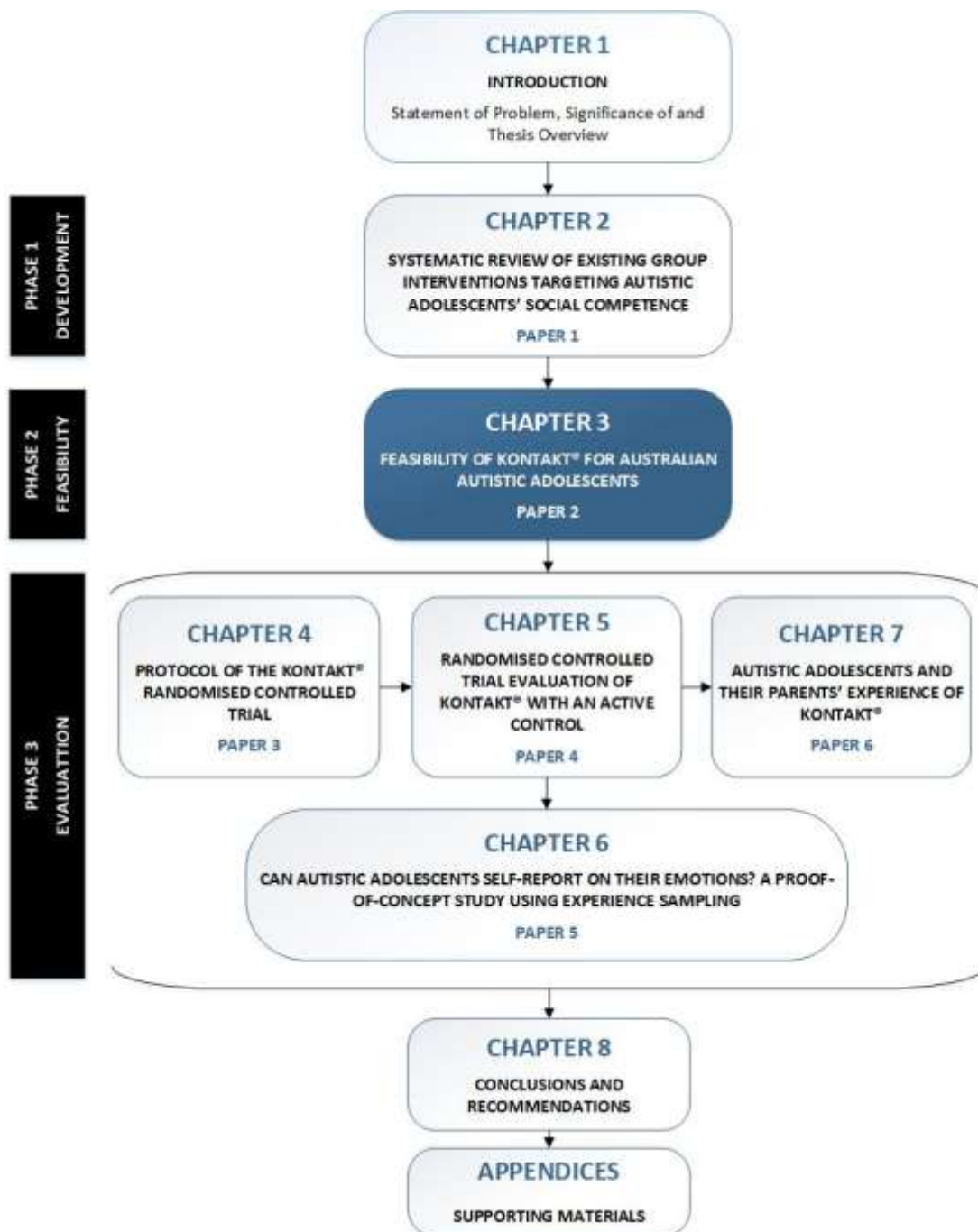
**Note:** While this paper has been published according to the style guide of the Journal of Autism and Developmental Disorders, in this thesis, it is presented according to APA publication guidelines for consistency.

**Note:** throughout this chapter, in line with the Journal of Autism and Developmental Disorders guidelines, autistic youth are referred to as ‘youth with ASD’ and the NT youth as ‘typically developing youth’.

**Note:** An extended discussion has been added to this chapter, detailing the modifications made to KONTAKT® prior to its evaluation via an RCT.

Figure 3.1

Overview of the Thesis Structure, Chapter 3





## AUTHOR CONTRIBUTION STATEMENT - CHAPTER 3

As co-authors of the paper entitled, 'Cross-cultural adaptation to Australia of the KONTAKT® social skills group training program for youth with Autism Spectrum Disorder: A feasibility study.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MF & SB);
- Assistance with choosing assessments (SG, MF, MB, SB)
- Assistance with analysis and interpretation (SG, MF, MB, SB)
- Review and editing of the manuscript (SG, MF, MB, SB)

Signature	Sonya Girdler	Date: 11/12/2020
Signature	Marita Falkmer	Date: 11/12/2020
Signature	Sven Bölte	Date: 26/02/2021
Signature	Melissa H. Black	Date: 11/12/2020

Our contribution to the paper was consistent with the role of co-author and involved the following contribution:

- Assistance with conceptualisation and design of the research (TA);
- Administration of groups and clinical support (TA & KM)
- Assistance with choosing assessments (FL, AF, CC & NC)
- Assistance with analysis and interpretation (NC)
- Review and editing of the manuscript (FL, CC, AF, TA, NC & KM)

Signature	Tasha Alach	Date: 23/11/20
Signature	Kelly Milne	Date: 23/11/20
Signature	Anna M. Fridell	Date: 18/02/2021
Signature	Christina Coco	Date: 23/02/2021
Signature	Fabien Lenhard	Date: 15/12/2020
Signature	Nigel T. Chen	Date: 18/02/21



## EXTENDED DISCUSSION

This study demonstrates the importance of considering the cross-cultural feasibility of SSGT interventions prior to implementation. Several modifications to the KONTAKT® program were required to ensure its suitability to the Australian context and address the feedback from adolescents, parents and trainers captured through the focus groups. Appendix 9 details all modifications made following this study. Key modifications made to the program included adding a pre-KONTAKT® session delivered one-on-one with the adolescent, assisting trainers in building rapport with the participants, setting goal attainment scale (GAS) goals and identifying their needs and required level of support. A further manual for setting GAS goals was added to the trainers' workbook. Two scripted Microsoft PowerPoint presentations, one for the adolescents and one for the parents, were developed to be delivered by trainers prior to the first KONTAKT® session. Discussion activities within each session were modified to commence with a short video clip introducing and framing the topic for the week. A framework for participant-led sessions was also developed and included in the participant workbooks with the goal of supporting participants in organising the delivering of these sessions. Addressing adolescents' feedback, a new discussion topic was added to the program entitled, 'Talking to someone you like'. Further resources including visual guides, cards and instructions, were developed to support the delivery of sessions. Five games common among Australian youth (emotion game, heads up, 20 questions, charades, question ball) were added to the trainers' workbook. Role-play scripts were further revised and rewritten to reflect the daily routines of Australian adolescents. Homework assignments were renamed as 'missions' and were modified to align with each participant's personal goals. New resources were added to the parent workbook, informing them of the agenda for each session and how they could assist their adolescent child with assignments.

**CHAPTER 4 -  
PROTOCOL OF THE  
KONTAKT®  
RANDOMISED  
CONTROLLED TRIAL**



“Someone is sitting in the shade today because someone planted a tree a long time ago.”

-Confucius

This chapter presents a paper published open access in *Trials* journal, **impact factor 1.975**:

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Lenhard, F., Fridell, A., Coco, C., Milne, K., Chen, N. T. M., Bölte, S., & Girdler, S. (2019). KONTAKT® for Australian adolescents on the autism spectrum: Protocol of a randomised control trial. *Trials*, 20, 687. <https://doi.org/10.1186/s13063-019-3721-9>

## PREFACE

Findings from the previous chapters of this thesis highlighted a need for a culturally acceptable evidence-based SSGT intervention to support Australian autistic youth in developing their social competence and managing the core challenges associated with ASD. As mentioned in previous chapters, socialising is heavily context-based and significantly affected by one’s culture. Any SSGT intervention must account for this variability. As such employing Bowen et al. (2009) framework, the feasibility and cross-cultural validity of KONTAKT® in assisting Australian autistic youth achieving personally meaningful social goals was assessed. The current chapter describes the protocol for assessing the efficacy of KONTAKT® with Australian autistic adolescents via an RCT, addressing many of the limitations of previous research identified in Chapter 2, including limited investigation of the efficacy of SSGT interventions in

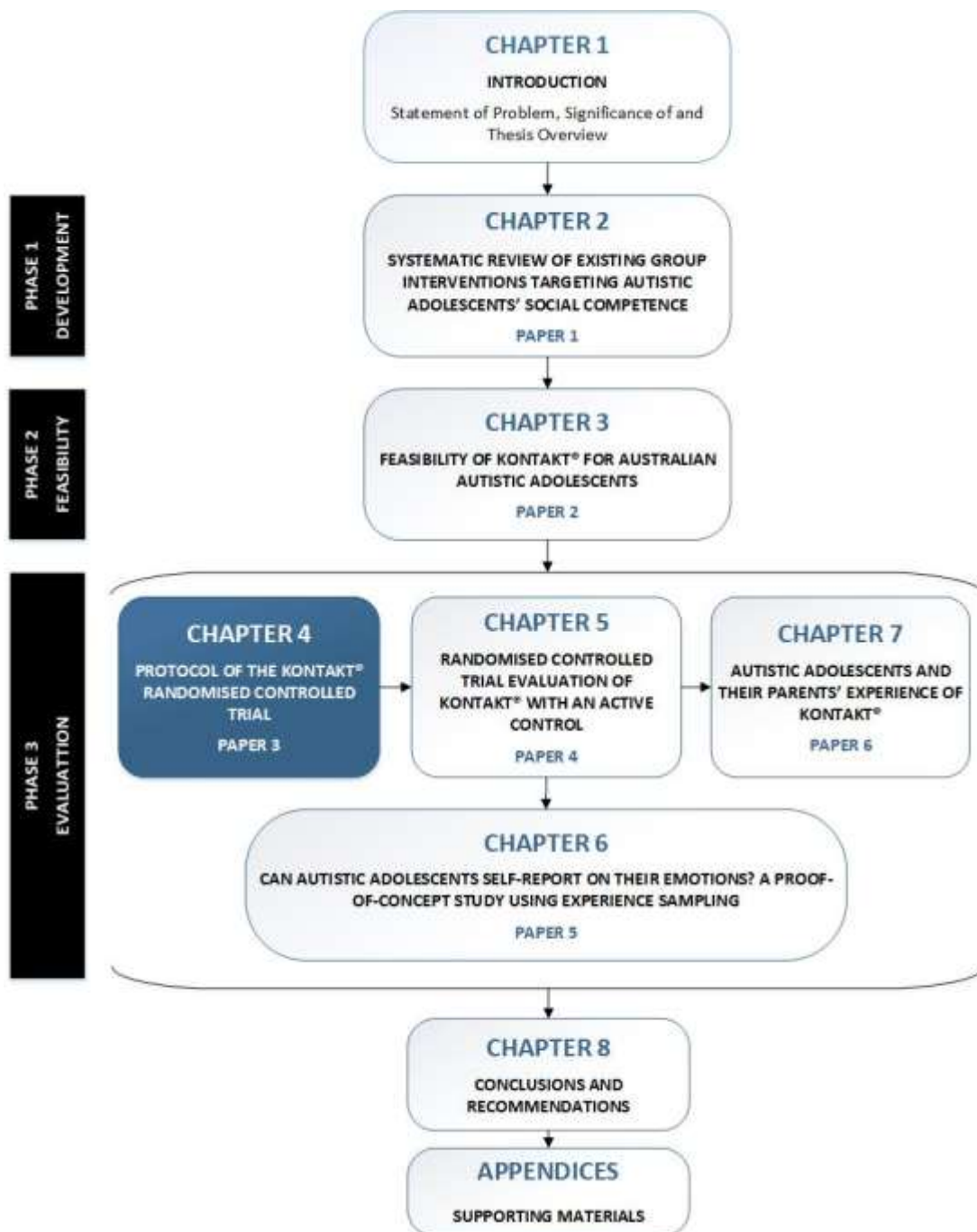
comparison to an active control as control group or blinded assessment of outcomes, limited investigation of adolescent-self report and the possible adverse effect of SSGT interventions.

*Note:* While this paper has been published according to the style guide of the Journal of Autism and Developmental Disorders, in this thesis, it is presented according to APA publication guidelines for consistency.

*Note:* Supplementary files published with this chapter in the *Trials* journal have been updated for this thesis and presented in Chapter 2.

Figure 4.1

Overview of the Thesis Structure, Chapter 4



# AUTHOR CONTRIBUTION STATEMENT - CHAPTER 4

As co-authors of the paper entitled, 'KONTAKT® for Australian adolescents on the Autism spectrum: Protocol of a Randomized Control Trial.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MF & SB);
- Assistance with choosing assessments (SG, MF, MB & SB)
- Assistance with analysis and interpretation (SG, MF, MB & SB)
- Review and editing of the manuscript (SG, MF, MB & SB)

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Signature	Sven Bölte	Date: 26/02/2021
Signature	Melissa H. Black	Date: 11/12/2020

Our contribution to the paper was consistent with the role of co-author and involved the following contribution:

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- Assistance with choosing assessments (FL, AF, CC & NC)
- Assistance with analysis and interpretation (NC)
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**CHAPTER 5 -  
RANDOMISED  
CONTROLLED TRIAL  
EVALUATION OF  
KONTAKT<sup>®</sup> WITH AN  
ACTIVE CONTROL**



"A dream doesn't become a reality through magic. It takes sweat, determination, and hard work."

-Colin Powell

This chapter presents a paper submitted to journal of European Child & Adolescent Psychiatry, **impact factor 3.94**:

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Lenhard, F., Fridell, A., Coco, C., Milne, K., Bölte, S., & Girdler, S. (2020). *Social skills group training supports autistic adolescents in achieving their personally meaningful social goals: A randomised actively controlled trial of KONTAKT®* [Unpublished material]. School of Allied Health, Curtin University.

## PREFACE

Previous chapters of this thesis confirmed the preliminary efficacy and acceptability of KONTAKT® for Australian autistic youth aged 12–17 years old (Chapter 3) then present a detailed protocol of a two-armed, parallel RCT designed to evaluate the efficacy of KONTAKT® guided by the CONSORT statement (Moher, 2010) in assisting Australian adolescents to achieve their personally meaningful social goals compared to a manualised active control group (Super Chef cooking group) controlling for the effect of social context (Chapter 4). The current chapter describes the implementation of the RCT and assessment of its outcomes via a measurement framework previously tested for robustness in the feasibility study (Chapter 3). This measurement framework assessed change in the adolescents' autistic traits, quality

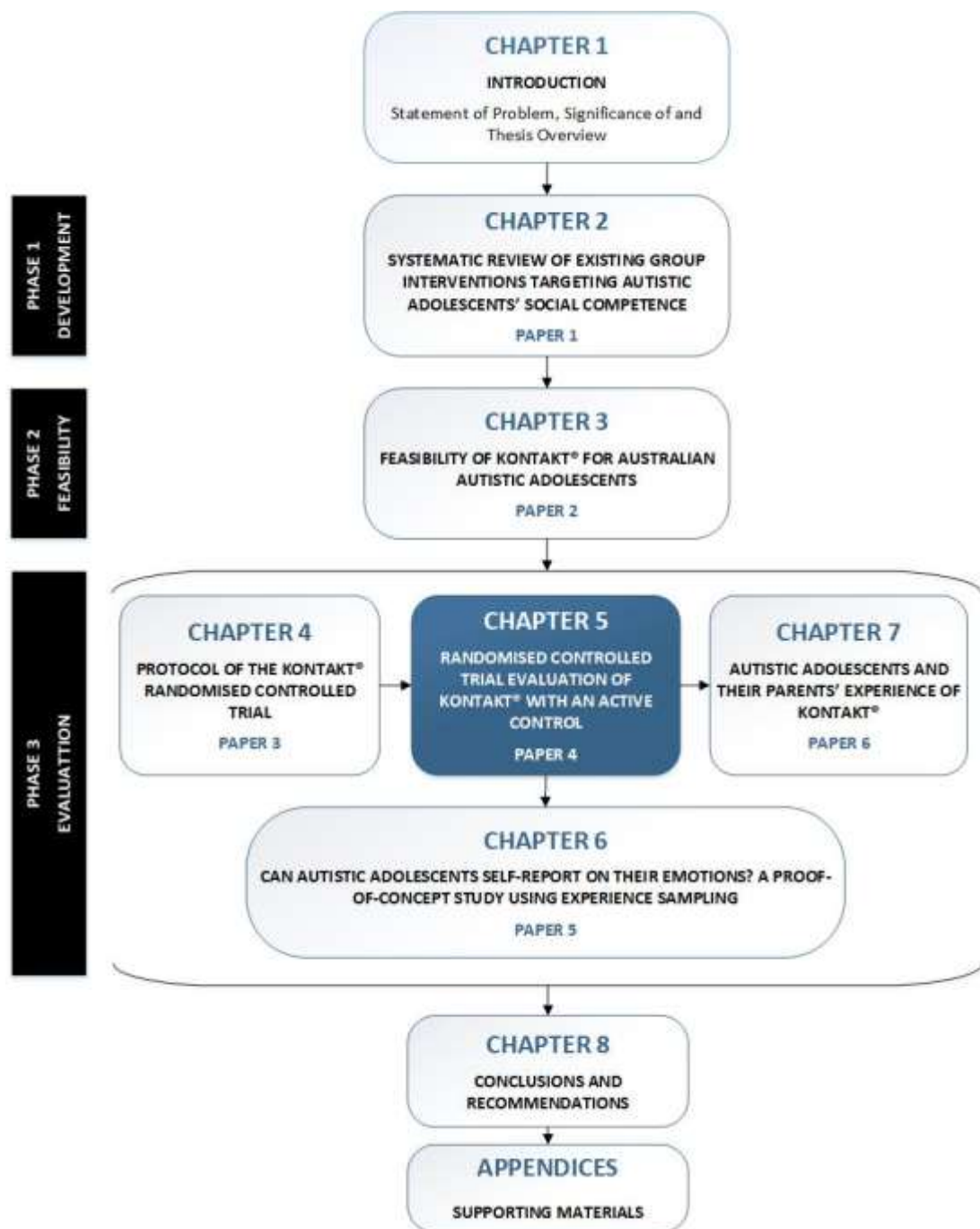


of life, facial emotion recognition skills, social anxiety, and loneliness from baseline to post-intervention and follow-up, with the latter being the primary endpoint.

*Note:* To present a better visualisation of the interventions used in this chapter, online resources 1 (as submitted to the journal) is now presented as Table 5.1 and Table 5.2.

Figure 5.1

Overview of the Thesis Structure, Chapter 5



## AUTHOR CONTRIBUTION STATEMENT - CHAPTER 5

As co-authors of the paper entitled, 'KONTAKT® social skills group training supports autistic adolescents in achieving their personally meaningful social goals: A randomised actively Controlled Trial.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MF & SB);
- Assistance with choosing assessments (SG, MF, MB & SB)
- Assistance with analysis and interpretation (SG, MF, MB & SB)
- Review and editing of the manuscript (SG, MF, MB & SB)

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- Assistance with choosing assessments (FL, AF & CC)
- Review and editing of the manuscript (FL, CC, AF, TA & KM)

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**CHAPTER 6 - CAN  
AUTISTIC  
ADOLESCENTS SELF-  
REPORT ON THEIR  
EMOTIONS? A PROOF-  
OF-CONCEPT STUDY  
USING EXPERIENCE  
SAMPLING**



"I'm small, I'm young - and I'm so different. You've always respected that difference, and you've always trusted it. Trust me now."

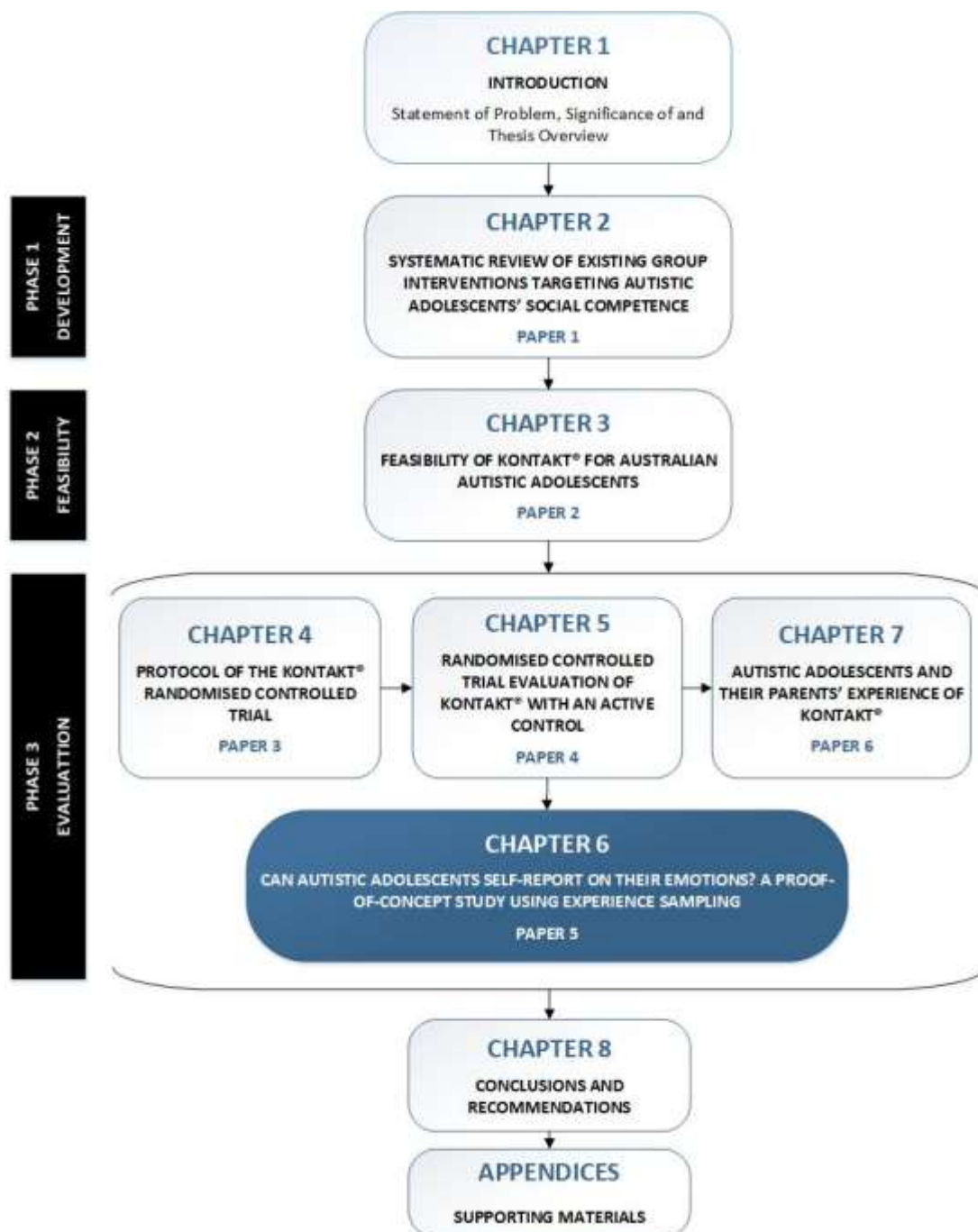
-Dean Koontz

## PREFACE

Chapter 5 employed an RCT exploring the efficacy of KONTAKT®, an SSGT intervention, compared to an active control cooking group (Super Chef). Findings demonstrated that within an Australian context, KONTAKT® was significantly more efficacious in helping autistic youth achieve their personally meaningful goals. Importantly, it was revealed that although exposure to a supportive social group such as a cooking group delivered by health professionals improved autistic youth's progress towards their personally meaningful social goals, these outcomes were not sustained at 12 weeks follow-up. This finding highlighted the long-term maintenance effects of explicit social skills training strategies for autistic adolescents, such as those provided in KONTAKT®. KONTAKT® participants also demonstrated significant reductions in their anxiety compared to Super Chef participants. With the exception of anxiety, no further between-group effects on secondary outcomes were detected. The ESM was one of the secondary outcome measures employed in the RCT. ESM is a novel approach used in the present study to assess the effect of exposure to the SSGT intervention and the active control on the participants' emotional states obtained via adolescent self-report and their parent dyads' proxy reports. In Chapter 5, adolescents from both study groups self-reported that during the intervention period, that is time they were attending the groups (KONTAKT® and cooking group

active control), they were happier, but less calm and more anxious, lonely, and scared compared to the 12 weeks following the completion of their group. Despite the valuable knowledge gained from this data, the reliability of the findings is unclear as some studies question autistic youths' ability to self-report, particularly in regard to their emotional states (Mazefsky et al., 2011). Using a proof-of-concept study, Chapter 6 details the methodology employed in exploring the feasibility of the ESM for obtaining autistic adolescents' self-reported emotional states and their parents' proxy reports across the study period. To investigate autistic youths' capability to self-report, Chapter 6 explores the similarities and discrepancies of adolescents' self-reported emotional states and their parents' proxy reports throughout the RCT trial (seven months).

Figure 6.1

*Overview of the Thesis Structure, Chapter 6*

## AUTHOR CONTRIBUTION STATEMENT - CHAPTER 6

As co-authors of the paper entitled, 'Can autistic adolescents self-report on their emotions? A proof of concept using the experience sampling method' reports of autistic youths' emotional states across a randomised controlled trial of KONTAKT®.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MF, MB, SB);
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Signature \_\_\_\_\_ Christina Coco Date: 23/02/2021



**CHAPTER 7 - AUTISTIC  
ADOLESCENTS AND  
THEIR PARENTS'  
EXPERIENCE OF  
KONTAKT®**



"Quality in a service or product is not what you put into it. It is what the client or customer gets out of it."

-Peter Druker

This chapter presents a paper has been submitted to *Journal of Autism and Developmental Disorders*, **impact factor 3.047**:

Afsharnejad, B., Falkmer, M., Black, M. H., Alach, T., Picen, T., Fridell, A., Coco, C., Milne, K., Bölte, S., & Girdler, S. (2020). "I met someone like me!": Autistic adolescents and their parents' experience of the KONTAKT® social skills group training. *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-021-0545-1>

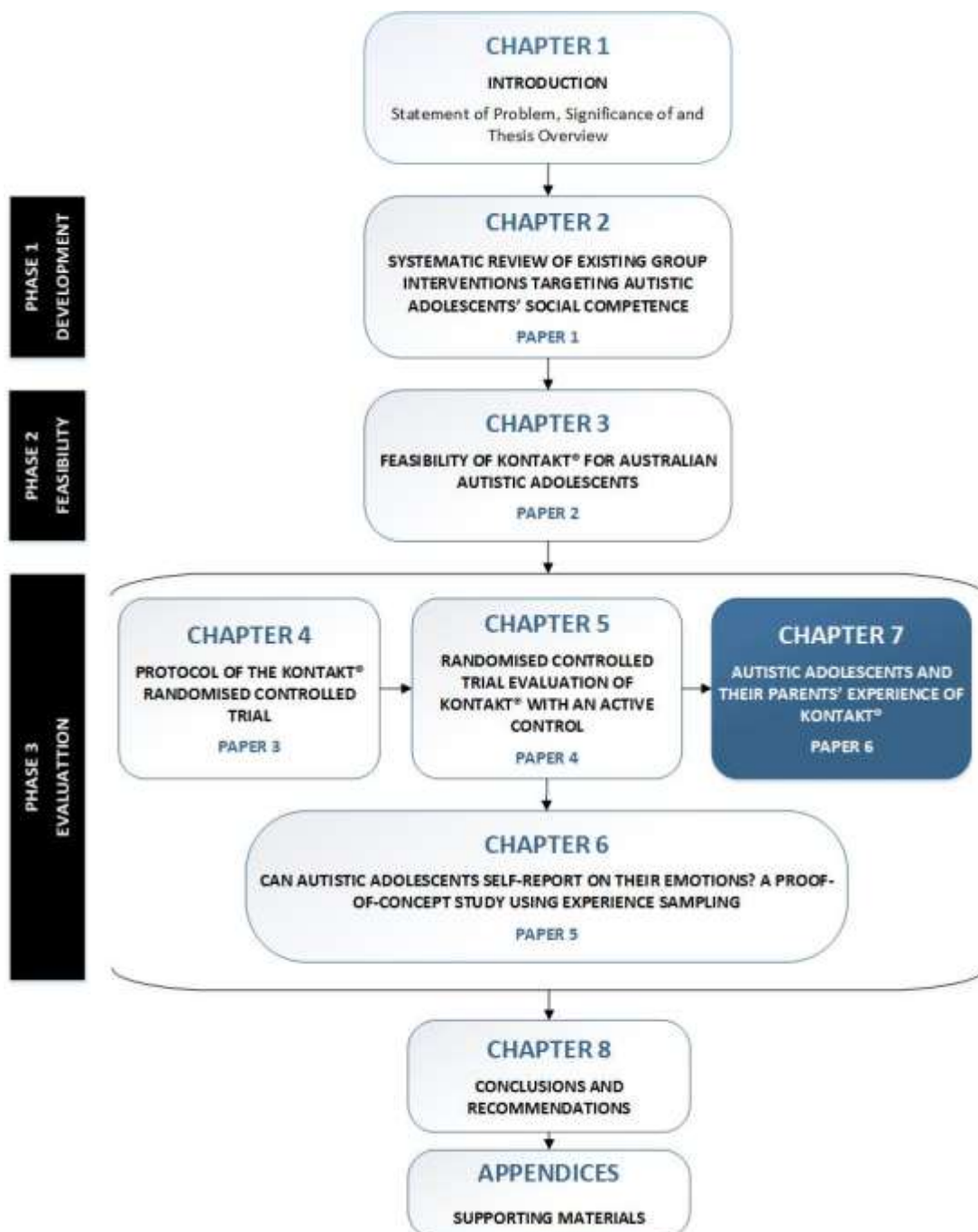
## PREFACE

Findings presented in chapter 5 demonstrated the efficacy of KONTAKT® in comparison to an active control group (Super Chef cooking group) in helping autistic youth achieve personally meaningful social goals while reducing their social anxiety during interactions. While additional secondary measures did not show any further significant intervention gains, they indicated within-group benefits for both the KONTAKT® and active control participants. While the adolescents' satisfaction with KONTAKT® provides an understanding of the acceptability of the intervention, qualitative data collection methods allow a deeper insight into participations perceptions of KONTAKT®. This chapter aimed to explore the perceived efficacy and appropriateness of KONTAKT® from the perspective of its participants (adolescents

and their parents), including factors related to the program (structure and content) and the adolescents (increased social capabilities) and factors hindering or facilitating adolescents skill development, addressing a current paucity of knowledge in the literature (Bölte, 2014).

**Figure 7.1**

*Overview of the Thesis Structure, Chapter 7*



## AUTHOR CONTRIBUTION STATEMENT - CHAPTER 7

As co-authors of the paper entitled, "I met someone like me!": Autistic adolescents and their parent's experience of the KONTAKT<sup>®</sup> social skills group training.' We confirm that Bahareh Afsharnejad has been the principal research and has made the following contributions:

- Conceptualisation and design of the research;
- Data collection, analysis and interpretation;
- Writing the manuscript and critical appraisal of the findings;

Our contribution to the paper was consistent with the role of supervisors and involved the following contributions:

- Assistance with conceptualisation and design of the research (SG, MF, MB & SB);
- Assistance with choosing assessments (SG, MF, MB & SB)
- Assistance with analysis and interpretation (SG, MF, MB & SB)
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Our contribution to the paper was consistent with the role of co-author and involved the following contribution:

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Signature	Jill Perry	Date: 23/11/20

# **CHAPTER 8 - CONCLUSIONS AND RECOMMENDATIONS**





“Quality is never an accident. It is always the result of intelligent effort.”

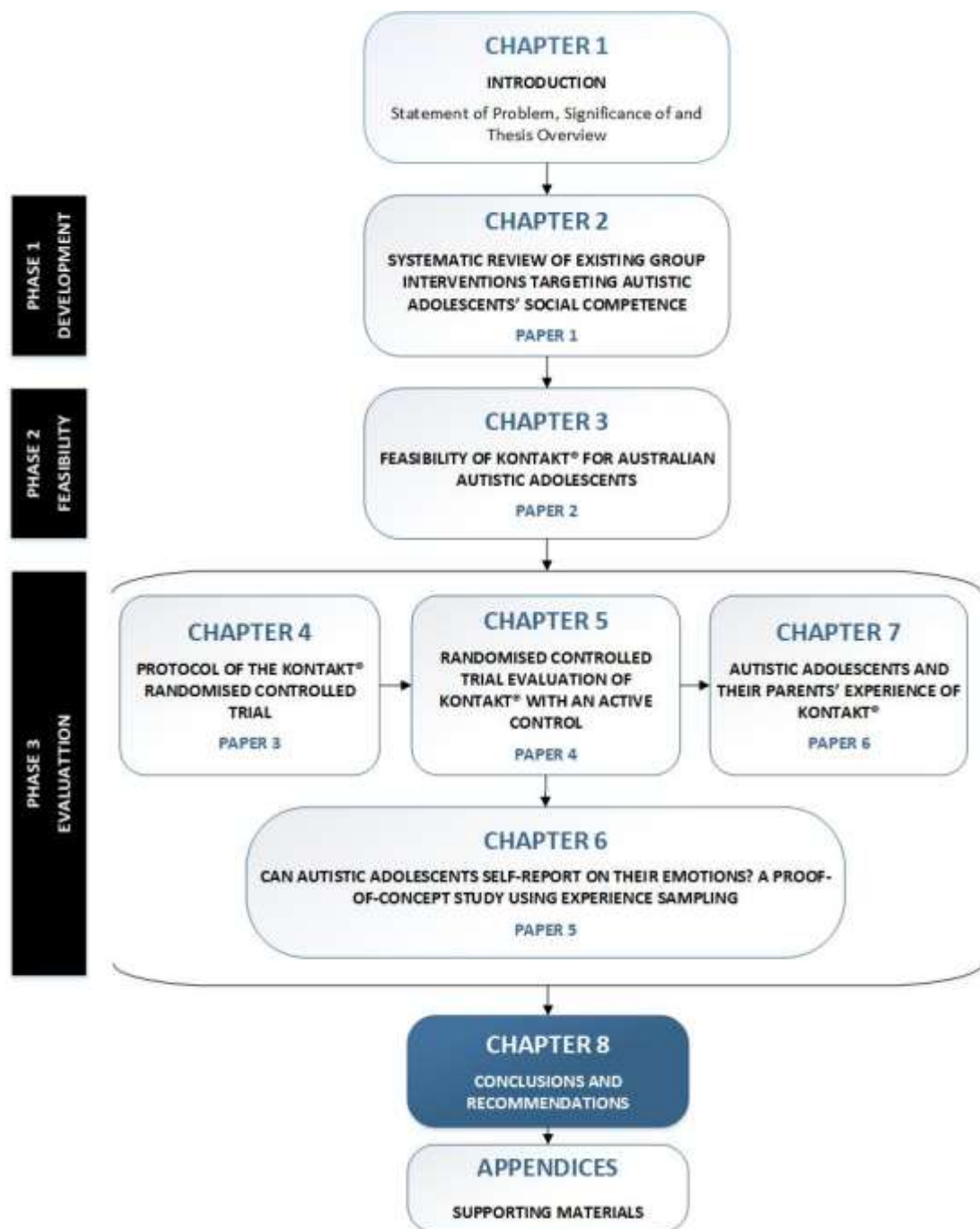
-John Ruskin

## PREFACE

Synthesising and summarising the findings of prior chapters, Chapter 8 critically reviews the strengths and limitations associated with this thesis for overall contributions, further detailing implications for practice and recommendations for future research into the efficacy of SSGT interventions for autistic adolescents.

Figure 8.1

Overview of the Thesis Structure, Chapter 8





## OVERVIEW

Limited social skills knowledge and application of these skills in everyday life is a key feature associated with ASD (APA, 2013), negatively affecting autistic adolescents' daily participation across multiple contexts and activities (Askari et al., 2015). These challenges in the short term can affect autistic youths' relationships, resulting in low-quality friendships, peer rejection and isolation (Bauminger et al., 2003). In adulthood, the challenges associated with ASD can influence outcomes limiting independence, further education and employment opportunities (Howlin & Magiati, 2017). These short and long-term challenges can significantly affect an autistic youth's quality of life (Mason et al., 2018) and increase their risk of developing secondary mental health issues (Howlin & Magiati, 2017). These negative outcomes, along with the unprecedented increase in the prevalence of ASD in Australia (ABS, 2019), highlight the need for interventions supporting autistic adolescents. Guided by the MRC framework for developing complex interventions (Craig et al., 2008), the overall aim of this thesis was to examine the efficacy of SSGT interventions in advancing autistic youth's social capabilities. This process was delivered in three phases, supporting the modification, assessment of feasibility, and evaluation of the efficacy of the KONTAKT® SSGT program delivered to Australian autistic adolescents targeting the improvement of social competence.

## KEY FINDINGS AND IMPLICATIONS

### EVIDENCE-BASED SOCIAL SKILLS GROUP TRAINING

#### INTERVENTIONS FOR AUTISTIC ADOLESCENTS (PAPER 1)

Phase 1 of this thesis aimed to review the literature for existing SSGT interventions targeting autistic adolescents, assessing their efficacy, intervention fidelity, methodological quality and identifying possible research gaps (Chapter 2). Utilising a systematic review and meta-analysis approach, Chapter 2 critically appraised the methodological quality, intervention fidelity and outcomes of studies using an RCT design to evaluate the efficacy of SSGT interventions developed for autistic youth.

Adding to the current body of knowledge, findings from the evaluation of intervention fidelity revealed that not all studies provide a clear picture of how closely the delivery of the SSGT intervention aligned with RCT protocols. Low intervention fidelity seriously threatens the reliability and validity of the SSGT intervention efficacy reports, particularly when they are delivered in a community context by facilitators from varied professional backgrounds as the researchers' are constrained in their ability to control the service delivery context (Horner et al., 2005; Santacroce et al., 2004; Smith et al., 2007; Wells et al., 2012).

Further, findings from the meta-analysis revealed that SSGT interventions have been moderately effective in improving social outcomes for autistic adolescents (Gates et al., 2017). However, in contrast to previous reviews, the present meta-analysis found that SSGT interventions did not significantly affect the autistic-related symptoms or behavioural and emotional challenges of autistic adolescents (Gates et al., 2017; Wolstencroft et al., 2018). Despite the medium effect and good methodological quality of the identified studies evaluating SSGT efficacy for autistic youth via an RCT, the findings of Chapter 2 highlighted several consistent design and intervention limitations limiting the generalisability of the reported results.

Specifically, design limitations were mainly related to (a) ambiguity in complying with the CONSORT statement (Moher et al., 2010), (b) employing small sample sizes, (c) not employing single or double-blinding, (d) failing to conduct interviews enabling triangulation of the quantitative and qualitative findings, (e) an over-reliance on parent reports to explore the impact of the SSGT, (f) not accounting for the influence of a supportive social context, (g) failing to account for the effect of intervention dosage (i.e. the number of sessions), (h) unclear reporting of the context in which the intervention was delivered, and finally, (i) a lack of clarity in randomisation processes (Afsharnejad et al., 2019). Comparison across studies was also limited by designs failing to nominate a primary outcome measure (Boutron et al., 2008).

Intervention limitations stemmed from publications failing to detail the information necessary in assessing adherence to intervention protocols (Borrelli et al., 2005). These limitations predominantly included: (a) not reporting the percentage of

adherence to the protocol, (b) an unclear process of how SSGT providers were trained and supervised (e.g., trainers, coaches), (c) whether the social skills learnt as a result of attending the SSGT intervention were assessed within the SSGT group context or in everyday life, (d) not reporting nonspecific intervention effects such as therapeutic alliance or adverse events associated with attending the program, and (e) not considering person and context-related cultural factors (Ravindran & Myers, 2012).

Overall, Chapter 2 questions the generalisability of findings from existing evaluations of the efficacy of SSGT interventions, pointing to a need for more rigorous research to adopt an adolescent-centric approach in assessing the effects of SSGT programs. Chapter 2 finally supported the conclusion that given the culture of Australia and Sweden are broadly similar, the evidence-based, manualised SSGT KONTAKT® (Bölte, 2018) could be tailorable to the Australian context. Previous studies of short (12 sessions) and long (24 sessions) variants of KONTAKT® in Sweden had previously demonstrated the efficacy of this program to Swedish autistic children and adolescents (Choque Olsson et al., 2017; U Jonsson et al., 2018), with the latter demonstrating greater effect in reducing parent-reported autistic symptoms. The greater efficacy of the long variant (Chapter 2) suggested that dosage was an important consideration in tailoring this SSGT intervention to the Australian context.

### **CROSS-CULTURAL ACCEPTABILITY AND FEASIBILITY OF KONTAKT® IN AN AUSTRALIAN CONTEXT (PAPER 2)**

Findings from Phase 1 provided evidence for the efficacy of SSGT interventions in improving the social capabilities of autistic youth. Phase 2 (Chapter 3) aimed to explore the cross-cultural acceptability and feasibility of delivering KONTAKT® within an Australian community-based service delivery system (Craig et al., 2008) in relation to acceptability, demand, implementation, adaptation, integration, expansion and efficacy (Bowen et al., 2009). The measurement framework piloted in this study further adopted an adolescent centric approach addressing a noted limitation of previous research (Chapter 2). Chapter 3 detailed the cultural adjustments made to KONTAKT® and the preparation of a 16-session (medium-length) variant for

preliminary efficacy testing. Chapter 3 described the standardised process (further described in Chapters 4 and 5) employed in training, assessing and supervising KONTAKT® trainers (integration). Consistent with previous findings in Sweden (Choque Olsson et al., 2016), interviews conducted with stakeholders (autistic adolescents, their parents and the trainers leading KONTAKT® groups) revealed stakeholders were highly satisfied with KONTAKT® (acceptability). Further, trainers exhibited a high level of intervention fidelity in delivering KONTAKT® (implementation), suggesting only minor modifications to the programs content and some tailoring to align with their service context (*Expansion*). Findings in Chapter 3 also demonstrated numerous adolescent reports of social goal achievement and improved daily emotional states, combined with parent reports of decreased autism-related symptoms in their adolescent child (efficacy; Choque Olsson et al., 2017; Jonsson et al., 2018), providing further evidence of KONTAKT®'s adaptability to an Australian context (adaptation). Expressions of interest received during this feasibility study for a prospective evaluation of KONTAKT® via an RCT demonstrated the high level of demand amongst Australian families with an autistic adolescent seeking evidence-based interventions (demand; AIHW, 2017). Findings echoed previous research (Choque Olsson et al., 2017; Jonsson et al., 2018), providing preliminary evidence of the efficacy of KONTAKT® within an Australian community service delivery context further contributing to existing knowledge of the positive effects of SSGT interventions. Demonstrating the robustness of the measurement framework employed in this study, Chapter 3 also contributed to existing knowledge about autistic adolescents' capability of providing self-reports (Eldridge et al., 2004).

### **THE PROTOCOL OF KONTAKT®: THE RCT DESIGN (PAPER 3)**

Highlighting the importance of considering cultural context in delivering SSGT interventions, findings from Phase 2 lead to further modifications of the Swedish version of KONTAKT®, ensuring its alignment with the Australian context and standardisation for evaluation in Phase 3. Addressing many of the limitations of previous research, Phase 3 detailed the evaluation process of KONTAKT® for Australian autistic youth (Chapters 4–7). Aiming to provide a protocol for evaluating

the 16-session variant of KONTAKT® and guided by the CONSORT guidelines (Moher et al., 2010), Chapter 4 provided an overview of the preferred (Craig et al., 2008) *gold standard* RCT design used to evaluate KONTAKT®. Focusing on capturing autistic adolescents' perceived value of an SSGT intervention, Chapter 4 described the measurement framework, measuring participants' achievement of personally meaningful goals (primary outcome) and daily sampling of emotional states, enabling an adolescent-centric approach to assessing outcomes. This chapter outlined the contributions of the RCT study to the existing literature by (a) Employing an active control group (Super Chef cooking group), controlling for the possible influence of exposure to a supportive control context; (b) Collecting all data via an assessor blinded to group allocation; and, (c) Gaining a deep understanding of KONTAKT® effects via combining both qualitative and quantitative approaches.

### **EXPLORING THE EFFICACY OF KONTAKT® FOR AUSTRALIAN AUTISTIC YOUTH: A RANDOMISED ACTIVELY CONTROLLED TRIAL (PAPER 4)**

Utilising the RCT design described in Chapter 4, Chapter 5 aimed to explore the efficacy of KONTAKT® via a pragmatic RCT design compared to an active control cooking group (Super Chef) in helping autistic adolescents to achieve their personally meaningful social goals. Chapter 5 made important contributions to research by focusing on autistic adolescents' self-reported improvements in social outcomes in evaluating the efficacy of an SSGT intervention (Lerner et al., 2012; White, 2011). The nomination of the 12-week follow-up as the primary endpoint highlighted the efficacy of KONTAKT® beyond the intervention period when controlling for exposure to a socially supportive group context (Choque Olsson et al., 2017; Jonsson et al., 2018). Findings from Chapter 5 revealed that attending KONTAKT® had supported adolescents' progress towards their personally meaningful social goals while reducing their social anxiety. As outlined in Chapter 5, the increased social competence reported by KONTAKT® and Super Chef participants highlighted the importance of context, revealing that attending supportive social groups delivered by

health professionals experienced in working with autistic adolescents can be beneficial.

Daily collection of emotional states during the trial provided insight into how a social context can affect autistic adolescents. Interestingly, these findings indicated a decrease in participant happiness during the follow-up period, supporting autistic adolescents' interest in socialising portrayed in Chapter 2. Addressing a further gap in existing research, findings of Chapter 6 reiterated the importance of capturing adverse events during evaluations of SSGT interventions and the need for considering the potential harm caused by attending an SSGT intervention. Regular monitoring of adverse effects throughout the intervention, along with timely, individualised management strategies, is likely to improve the benefits of attending such programs (Parimbelli et al., 2018). This knowledge can also inform further adjustments required to the intervention delivering a more individually tailored approach to improve social outcomes (Parimbelli et al., 2018; Warren et al., 2010). Finally, findings from Chapter 6 add to the current understanding of a dose-response effect of SSGT, demonstrating the superiority of longer variant (24 sessions) of KONTAKT® compared to the shorter and medium variants (Choque Olsson et al., 2017; Jonsson et al., 2018). These findings align with previous research, noting the benefits of longer interventions (Wolstencroft et al., 2018) in consolidating the social skills of autistic youth (Jonsson et al., 2018).

### **CAPTURING ADOLESCENTS' DAILY EMOTIONAL STATES VIA EXPERIENCE SAMPLING METHOD: A PROOF-OF-CONCEPT (PAPER 5)**

Chapter 6 addressed an existing absence of knowledge, being the first and largest proof-of-concept trial, exploring the feasibility of ESM for collecting information about the emotional states of autistic youth from both adolescents and their parents across a long period (210 days). The participants' high response rate to ESM signals, despite the required long-term commitment, supported the acceptability of using mobile phones to collect ESM data. Collecting data via ESM has many noted

strengths, including removing the recall bias associated with more global measures assessing emotional states (Kubey et al., 1996). Comparison of adolescents' self-reported emotions to their parent dyad's proxy reports during the seven-month RCT trial demonstrated a small significant difference, suggesting autistic adolescents' are capable of self-reporting their emotions (Meyer et al., 2006). Findings from Chapter 6 highlight the importance of obtaining multi-informant reports in capturing the transitory emotional states of autistic adolescents (Tseng et al., 2014; White et al., 2014).

### **LIVED EXPERIENCE OF ADOLESCENTS AND THEIR PARENTS DURING KONTAKT®: A RESPONDER ANALYSIS (PAPER 6)**

Finally, to address the limited knowledge about participants' lived experience while attending an SSGT intervention, Chapter 7 employed a deductive, qualitative approach exploring the views and opinions of autistic adolescents and their parents' of KONTAKT®. Overall findings of Chapter 7 demonstrated high levels of satisfaction with the intervention and its components. Both parents and adolescents perceived positive changes in adolescents' social competence while reporting possible factors that might have affected their experience, providing a holistic understanding of KONTAKT®'s true effects on participants' everyday lives (Pellicano et al., 2014). Reiterating quantitative findings demonstrating the efficacy of KONTAKT®, Chapter 7 highlighted the SSGT intervention's capacity to improve adolescents' relationship skills, empowering them to be more self-reliant and approach social situations with confidence. Grouping the adolescents based on progress towards their social goals in Chapter 7 enabled a deeper understanding of the effect of KONTAKT® on the participants. Contrasting reports from high responders and low responders demonstrated that regardless of response level, stakeholders' perceived improvements in adolescents everyday social skills attributed to KONTAKT®, describing facilitators and barriers to participating in the program. Findings of Chapter 7 indicated that despite low and high responders describing similar improvements, the latter reported more engagement in KONTAKT® activities and homework assignments. As this higher perceived engagement coincided with

parents' more frequently reporting improved conversational skills, Chapter 7 emphasised the importance of merging fun and implicit teaching techniques to increase adolescents' engagement in such activities.

## KEY CONCLUSIONS

### **Explicit Social Skills Group Training Demonstrates Efficacy in Improving Autistic Youth's Social Outcomes.**

Findings of this thesis demonstrated that an SSGT employing explicit social skills teaching methods combined with implicit modality was more efficacious than a performance-based interactive control cooking group in enabling autistic adolescents to reach their personally meaningful social goals. As previously reported (Jonsson et al., 2018), the significantly higher achievement of goals sustained 12 weeks post attending the SSGT, along with reduced social interaction anxiety, further attests to the maintenance effects of receiving explicit social skills training. While evidence suggests immersive activities (e.g., social games) utilised via an implicit modality supports the development of social skills (Guivarch et al., 2017), the use of an active control provided clear evidence that mere exposure to a supportive social context alone is less likely to improve autistic youths' social outcomes. These findings, echoing previous research, provided a high level of evidence for utilising explicit teaching strategies (e.g., discussions) within SSGT interventions for autistic youth (Gates et al., 2017; Wolstencroft et al., 2018), significantly adding to the current body of knowledge.

### **Systematic Planning Is Imperative in Evaluating Social Skills Group Training interventions.**

Findings from this thesis highlighted the complexity of assessing the efficacy of SSGT and the extensive planning and commitment required to appropriately adapt such interventions to a target population. This thesis demonstrated the importance of increasing the generalisability of outcomes by seeking and addressing limitations of previous literature, accounting for cross-cultural adaptability and feasibility, and adopting a rigorous approach with a robust measurement framework in assessing the



efficacy of an SSGT intervention (Craig, 2008). This thesis was the first to assess an SSGT compared to an active control group, employing a blinded assessment of autistic adolescents' social outcomes, including novel measures such as progress towards their personally meaningful goals and collecting their daily emotional states, contributing significantly to the growing body of evidence supporting the efficacy of SSGT for autistic youth.

**An Adolescent-Centric Approach With Multi-Informant Measurement Framework Is a Necessity in Evaluating Social Skills Group Training Interventions.**

Being a pioneer in the field, findings from this thesis highlighted the utility of an adolescent-centric approach with robust multi-informant outcome measures in evaluating the efficacy of SSGT for autistic youth. This approach contributes significantly to understanding the efficacy of SSGT from the perspective of adolescents themselves, with the vast majority of studies relying on either parent proxy-report or the research team's observations (Afsharnejad et al., 2019; Chapter 2). The measurement framework employed in the RCT allowed insight into adolescents' self-determined personally meaningful outcomes, their daily emotional experiences while attending an SSGT and how their gaze patterns might change in response to SSGT during emotion recognition tasks.

**Employing a Holistic Approach Is Essential.**

The overall positive social outcomes reported in this thesis were gathered utilising a 'concurrent embedded strategy' enabling triangulation of data collected from two robust qualitative and quantitative studies (Creswell, 2018). This approach facilitated the integration of data gained from the RCT and the lived experiences studies, providing an in-depth understanding of how KONTAKT® influenced autistic youth, unpacking the salient active ingredients required for SSGT interventions. This thesis took a holistic view of SSGT outcomes, contributing to a limited understanding of not only how autistic youth and their parents experience attending an SSGT, but also how the components of an SSGT program may have influenced autistic adolescents' everyday lives and social skills outcomes.

**Methodological Rigour While Delivering Social Skills Group Training Programs in a Community-Based Service Delivery Context Is Possible.**

Findings from this thesis add to the current body of knowledge, suggesting that it is possible to deliver and evaluate the efficacy of an SSGT in the community-based health service delivery system. The design of this thesis addresses a noted limitation and possible bias of previous studies assessing the efficacy of SSGT interventions in controlled environments. Uniquely, this thesis presents a line of research culminating in a *gold standard* RCT with a community-based service provider, which maintained a high intervention fidelity and methodological quality. It should be noted that this research was made possible because of the collegial relationship developed between the service provider and the researcher, and funding received from the 'Stan Perron Charitable Trust'.

**Monitoring for Adverse Events Is Critical.**

Findings from this thesis highlighted that while autistic adolescents may be satisfied with an SSGT, involvement in the intervention may, at times, lead to adverse events. Given the paucity of evidence examining the adverse events triggered by attending SSGT programs, it remains unclear how the challenge of learning new social skills potentially affects autistic youth's other outcomes, such as anxiety levels (Linden & Schermuly-Haupt, 2014; Jonsson et al., 2014). This thesis presents one of the few studies to systematically assess the potential negative effects attributable to attending SSGT for autistic adolescents (Choque Olsson et al., 2017; Jonsson et al., 2014).

**Considering Dosage Is Important.**

Findings from this thesis reiterate the importance of considering dosage when developing an SSGT intervention for autistic youth, contributing to evidence supporting the benefits of longer SSGT interventions in improving outcomes (Jonsson et al., 2019). While research examining the efficacy of variants (short and long) of the same SSGT program is scarce, it is likely that longer SSGT programs provide more opportunities for participants to practise and consolidate their social skills (Jonsson

et al., 2019). Future research should further investigate the relative costs of short and long SSGT variants, enabling insight into both their efficacy and cost-effectiveness.

### **Improving the Social Outcomes of Autistic youth Is a Social Imperative.**

Given the current unprecedented increase in the number of Australian youth diagnosed with ASD and their associated social challenges, improving their social capabilities through evidence-based interventions is a social imperative. The evidence for the efficacy of KONTAKT® provided through this thesis is timely. Further research should investigate the longer-term impact of SSGT interventions in improving long term social participation and mental health outcomes.

## **LIMITATIONS**

This part of the thesis will focus on how this research process could be improved if it were to be repeated, informing considerations for future research. These limitations provide an overview of the research design employed in this thesis and SSGT interventions in general.

### **RESEARCH DESIGN**

Conducting a two-armed RCT enabled control of the effect of social context in comparing KONTAKT® to the Super Chef active control group, making a robust argument for its efficacy in improving autistic youths' social competence (Moher et al.). While a significant difference emerged between the study groups on the primary outcome at the primary data collection point, with KONTAKT® participants demonstrating significantly more progress in achieving their personally meaningful social goals, the mirroring of many results across the two study groups may have reflected expectancy bias (McMahon et al., 2013) constraining the statistical power of the RCT (Gross, 2005). A three-armed RCT may have helped capture the superiority of KONTAKT® compared to an active control group, with a third treatment-as-usual arm, further controlling for attention and expectation bias (Freedland et al., 2011). This approach could also enable a comparison of the efficacy of KONTAKT® to other available SSGT interventions evaluated via an RCT.

**Coproduction With Autistic Youth**

Cultural adjustments of KONTAKT® to an Australian context were informed by input from all stakeholders involved in the study, via focus group methodology and assessing the intervention's feasibility. This inclusive approach was key in tailoring and standardising KONTAKT® prior to efficacy testing in the RCT. The design of the RCT; however, took a research-driven approach, guided by the CONSORT statement (Moher et al., 2010). Future studies should consider more actively co-producing SSGT interventions with autistic adolescents, encouraging them to actively contribute topics relevant to their everyday social needs (Björling & Rose, 2019) and their views on meaningful outcomes (Sangill et al., 2019).

**Double-Blinded Assessment**

Blinded assessment of all outcome measures was employed in the RCT, exploring the efficacy of KONTAKT®, increasing the reliability of findings and decreasing the researchers' expectancy bias. Assessment of the attendance across both study groups revealed a higher attendance in the KONTAKT® group, which may have resulted from the value adolescents and their parents placed on attending the Super Chef groups, recognising it as an active control group rather than an SSGT program. As such, future research employing a double-blinded approach to group allocation, concealing group allocation to the participants, is likely to decrease type II errors and increase the validity of the findings (Boutron et al., 2008).

**Cost Analysis**

Findings from this thesis further emphasised the importance of dosage in understanding the efficacy of SSGT (Jonsson et al., 2018; Wolstencroft et al., 2018), with the longer, 24-session variant of KONTAKT® demonstrating twice the effect of the short (12-session) and medium, (16-session) variants (Choque Olsson et al., 2017; Jonsson et al., 2018). In the absence of cost studies, it is difficult for service providers to plan for the resources required for varied doses. In addressing this limitation, it is imperative that future research considers the cost of delivering both KONTAKT® and Super Chef in fiscally constrained service delivery contexts (Wolstencroft et al., 2018). Research obtaining both cost and efficacy data would enable understanding of the

economic costs and dose benefits of SSGT interventions, facilitating the further interpretation of dose-response.

### **Setting**

According to a recent review by the Australian Bureau of Statistics (2019), a considerable number of Australians live outside the major cities (<30%). Although delivered across multiple centres, participants in the current study came from suburbs around the major city, Perth. While the findings of this thesis are likely generalisable to other autistic adolescents living in Australian metropolitan areas, future research should examine the efficacy of SSGT programs tailored to meet the service delivery contexts of rural and remote locations (AIHW, 2020). To address this need, especially during the COVID-19 pandemic, telehealth services have become a popular platform, delivering services via video or telephone (Australian Digital Health Agency, 2020). A recent review suggested a range of benefits for interventions delivered to autistic youth via telehealth platforms (Sutherland et al., 2018). Further research should investigate the relative efficacy of SSGT delivered via Telehealth in comparison to face-to-face instruction in promoting autistic adolescents' social outcomes.

Despite the fidelity reports indicating the similarity of delivery across centres, and data analysis revealing no significant effect for a particular centre, it is possible that therapeutic alliance between the participants and the trainer running the group might have influenced findings of the RCT study (Lerner et al., 2012). As such, future research should examine the effect of therapeutic alliance on outcomes.

Employing a 12-week follow-up as the primary endpoint addressed a lack of knowledge about the maintenance and generalisability of SSGT effects (Gates et al., 2017). However, the long-term maintenance of these effects remains unclear (Mandelberg et al., 2014). It has been argued that SSGT interventions delivered in a clinical setting, unlike those delivered at school, restrict autistic youths' opportunities to practise their learned skills in a natural social context comprised of both autistic and NT peers, limiting the generalisability of skills to the real world (Sutton et al., 2018).

### **Control Group**

The present thesis presents findings from a two-armed RCT employing an active control group contributing understanding of the positive effects of a social context on the social and emotional outcomes of autistic adolescents. Within-group changes in the active control group included reduced ASD symptomology and increased engagement in social behaviours immediately following completion of the groups and feeling happier, calmer and less angry, afraid and anxious during the intervention compared to the follow-up period. Super Chef was a manualised cooking program delivered in a supportive group context and did not explicitly focus on or teach social skills. While the structure of Super Chef (e.g., dose, number of participants and duration) was aligned with the structure of KONTAKT®, the feasibility and acceptability of the program were not systematically assessed prior to the RCT. Failure to cross-check the reliability of fidelity reports of Super Chef trainers self-assessed via a checklist with video recordings of sessions may have affected the reliability of the fidelity finding for the active control arm of this study. Future research employing RCT designs with an active control group should pay equal attention to measuring intervention fidelity in both the intervention and control groups.

### **SAMPLE**

The power calculation for the RCT (Chapter 4) was underpinned by findings drawn from previous KONTAKT® efficacy studies conducted in Sweden (Choque Olsson et al., 2017; Jonsson et al., 2018). Given these studies were delivered in a different context, evaluated the efficacy of KONTAKT® in comparison to a treatment-as-usual control group, and delivered interventions of different doses (12 and 24-session variants), the sample of 90 participants may have been insufficient in capturing the effects of the 16-session variant of KONTAKT® compared to an active control group (Gross, 2005). Future research should continue to explore the efficacy of KONTAKT® in comparison to an active control employing a larger sample size, ensuring sufficient power. Although homogenously sampled, it is plausible that adolescents expressing their interest in participating in the RCT were limited to those motivated to pursue

either a cooking group or SSGT. This factor, along with the research criteria excluding adolescents with IQ < 70, low motivation to participate, or behavioural challenges, likely limit to some extent the generalisability of KONTAKT® effects to the broader autistic population.

## OUTCOME MEASURE

This thesis utilised a comprehensive measurement framework for assessing the multidimensional nature of autistic adolescents social skills. This information was gathered via multiple informants, including autistic adolescents' themselves, parent proxy and observer-reports with group allocation masked from the observers. This measurement framework entailed novel approaches, investigating adolescent changes in social performance, social knowledge and emotional states while attending an SSGT intervention, including GAS, ESM and an emotion recognition task accompanied by tracking the adolescents' gaze patterns. Although these measures contribute significantly to the current body of knowledge, it might be argued that they are limited in their sensitivity and objectivity in capturing social skills-related change in autistic youth. While the line of research presented in this thesis paid considerable attention to assessing the feasibility of these measures, establishing their psychometric properties in this population (Afsharnejad et al., 2020) and demonstrating autistic youths' ability to self-report on their progress towards personally meaningful social goals and emotional states, future research may benefit from further assessing the sensitivity of these measures in evaluating the efficacy of SSGT programs.

While this thesis employed eye-tracking to assess changes in the eye gaze patterns of autistic adolescents, this thesis did not employ neuroimaging approaches (e.g., EEG and fMRI) or genetic testing. Including these measures in future research could provide insight into the sources of heterogeneity impacting SSGT outcomes. Finally, while the measurement framework employed in this study provided insights into adolescents perceptions of the effects of KONTAKT®, it is unclear if adolescents implemented their newly acquired skills across multiple contexts, including at school.

Findings from the RCT revealed that adolescents participating in the KONTAKT® group did not report any significant improvements in their levels of loneliness, questioning whether these participants generalised their new skills to everyday contexts.

## RECOMMENDATIONS FOR FUTURE RESEARCH

This thesis delivers an evidence-based understanding of the efficacy of an SSGT intervention (KONTAKT®) tailored to Australian culture, underpinned by autistic adolescents self-reports, while accounting for the confounding effect of a supportive social context. The knowledge presented in this thesis indicates that SSGT interventions delivered in a community setting have the potential to support autistic adolescents in achieving their personally meaningful social goals. In the context of the findings of this research, the following section makes recommendations for service delivery providers, developers of SSGT programs and those designing future evaluations studies.

### RECOMMENDATIONS FOR SERVICE PROVIDERS

The findings of this thesis confirm previous literature suggesting the efficacy of SSGT interventions for autistic youth. The sample recruited to this study represented autistic adolescents who were screened for ASD and an IQ > 70. Further trainers were supervised and monitored in regard to their level of adherence to the KONTAKT® intervention manuals. Therefore, the findings of this research are most likely generalizable to the service delivery context considering implementing these approaches. Future research should evaluate the efficacy of KONTAKT® in more heterogeneous, clinically sourced samples.

As highlighted in Chapter 7, completing homework assignments and engaging in KONTAKT® activities optimised the benefits of participating in KONTAKT®. Translating KONTAKT® into practice service providers should consider approaches and strategies that encourage autistic youth to complete these tasks (Choque Olsson et al., 2016).



## RECOMMENDATIONS FOR SSGT INTERVENTIONS

As outlined in Chapter 2, the majority of evidence-based SSGT interventions published to date take a structured didactic approach to teaching social skills. Some evidence suggests that autistic youth prefer implicit, performance-based approaches to social skills training (Kasari & Patterson, 2012). Given the heterogeneous nature of ASD (APA, 2013), it is important to take an individualised approach to intervention planning, incorporating autistic adolescents' strengths and interest into an SSGT intervention (Ke et al., 2017; Koegel et al., 2012). As outlined in this thesis, KONTAKT® employs an individualised approach to its implementation. While KONTAKT® participants generally expressed satisfaction with this structure, they also expressed a desire for more implicit social skills training components (i.e., more outings) to be included within the sessions. As such, it is recommended that future SSGT interventions consider incorporating more opportunities for implicit teaching and practice of social skills. Additionally, given the benefits of attending Super Chef and increased friendship opportunities associated with autistic adolescents engaging together in an activity of shared interest (Carter et al., 2013), it is recommended that future SSGT interventions consider combining social skills training with autistic adolescents' shared interests (Koegel et al., 2012).

In accordance with the findings of Chapters 2, 5 and 6 and previous research examining the effect of the long, 24-session variant of KONTAKT® (Jonsson et al., 2018), opportunities for autistic adolescents to practice their social skills within the group (e.g., moderating a session) or in community contexts (e.g., café) was a key factor contributing to participant outcomes. Future modifications of an SSGT intervention should consider including more in vivo opportunities for practising social skills within a naturalistic setting.

Findings from Chapter 7 was the first to provide preliminary evidence regarding environmental barriers and facilitators affecting attendance of an SSGT intervention. To further advance knowledge in this field, future research should focus on systematically assessing environmental factors influencing societal inclusion in school

and society based on available guidelines such as the International Classification of Functioning, Disability and Health–Child and Youth (ICF-CY; WHO, 2001).

Although the present thesis makes a significant step towards understanding the efficacy of SSGT interventions from the perspective of autistic adolescents themselves, no research to date has evaluated the efficacy of an SSGT intervention co-produced with autistic youth. A co-production approach to designing SSGT programs would actively collaborate with autistic adolescents and their parents across all stages of developing and evaluating an SSGT program (Hawkins et al., 2017). Apart from acknowledging the capabilities of the autistic population, this strength-based approach would likely increase the acceptability and efficacy of SSGT interventions for autistic youth.

## RECOMMENDATIONS FOR FUTURE RESEARCH

Transparent reports of RCTs deliver the most reliable evidence of the efficacy of an intervention. Appraisal of the quality of these reports is only possible if the design, delivery and analysis process of the RCT are clearly and thoroughly described (Boutron et al., 2008). As outlined in Chapter 3, future RCTs should follow *gold standard* guidelines such as the MRC framework and CONSORT statement in addressing existing design and intervention limitations associated with delivering an RCT study (Craig et al., 2008; Moher et al., 2010). Future research could also seek to develop standardised assessment tools and measures that are sufficiently sensitive in measuring the social skills of autistic youth. More standardised approaches employing tools sensitive to changes in autistic adolescents' social skills would support understanding the effects of these interventions and compare their efficacy across various approaches and doses (Wolstencroft et al., 2018).

Findings from Chapter 7 indicated greater compliance in completing homework tasks was associated with higher improvements in the participants' conversational skills. Multiple factors likely influence higher levels of compliance with the prescribed SSGT tasks. Given the widely recognised clinical and etiological variability underpinning ASD, future research should consider the likely benefits of SSGT interventions based

on individuals' profiles (Loth et al., 2016). A more holistic approach to profiling the biopsychosocial aspects of individuals with ASD, as offered by the ICF-CY (WHO, 2001), would enable a more in-depth understanding of the possible genetic, epigenetic (Beversdorf, 2016), environmental (e.g., therapeutic alliance [Kang et al., 2020], adverse events [Rozenental et al., 2016]), personal factors (e.g., intrinsic motivation [Koegel & Koegel, 2007], and personality traits [Hektner, 2007]) influencing the outcomes of SSGT interventions for autistic adolescents. Knowledge gained from these studies could then inform further tailoring of SSGT interventions to the needs of individual participants (Loth et al., 2016).

## SUMMARY AND CONCLUSIONS

In summary, SSGT interventions are the most frequently employed interventions aiming to increase the social capabilities of autistic youth (Gates et al., 2017). Given adequate reporting, RCTs are a rigorous method for assessing the efficacy of SSGT interventions (Moher et al., 2010). KONTAKT® is the first SSGT intervention to be assessed via a well-designed RCT through an adolescent-centric lens. The findings presented in this thesis have important implications for both research and practice, including highlighting the importance of providing opportunities for autistic youth to develop and practice their social skills in supportive naturalistic settings. Further, KONTAKT® demonstrated efficacy in helping autistic youths achieve their personally meaningful social goals while reducing their social anxiety. These findings make some progress towards addressing the current lack of evidence-based interventions targeting the social skills of Australian autistic adolescents (NDIS, 2020). While further research is needed, it is plausible that attending an SSGT program such as KONTAKT® during adolescence could act as a stepping stone for autistic youth, improving their future outcomes and mental health. As articulated by Alan Rosales:

*"We need to learn to accept and celebrate our differences, and we need to continue our research in autism spectrum disorder in order to understand how we can best lend a helping hand."*

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*Note:* Images used at the beginning of each chapters, have been purchased from Shutterstock.com

# APPENDICES

## **Appendix 1 - Kmet Quality**

## Moher and colleagues (2010): CONSORT Checklist

Table 1: CONSORT 2010 checklist of information to include when reporting a randomised trial\*

Section/Topic	Item No	Checklist Item	Reported on page No
Title and abstract	1a	Identification as a randomised trial in the title	
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT The abstracts <sup>(1, 10)</sup> )	
<b>Introduction</b>			
Background and objectives	2a	Scientific background and explanation of rationale	
	2b	Specific objectives or hypotheses	
<b>Methods</b>			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	
Participants	4a	Eligibility criteria for participants	
	4b	Settings and locations where the data were collected	
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	
	6b	Any changes to trial outcomes after the trial commencement, with reasons	
Sample size	7a	How sample size was determined	
	7b	When applicable, explanation of any interim analyses and stopping guidelines	
<b>Randomisation</b>			
Sequence generation	8a	Method used to generate the random allocation sequence	
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	
	11b	If relevant, description of the similarity of interventions	
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	
<b>Results</b>			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	
	13b	For each group, losses and exclusions after randomisation, together with reasons	
Recruitment	14a	Dates defining the periods of recruitment and follow up	
	14b	Why the trial ended or was stopped	
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	
Adverse analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms <sup>(9)</sup> )	
<b>Discussion</b>			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	
<b>Other information</b>			
Registration	23	Registration number and name of trial registry	
Protocol	24	Where the full trial protocol can be accessed, if available	
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	

\*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials,<sup>(11)</sup> non inferiority and equivalence trials,<sup>(12)</sup> non pharmacological treatments,<sup>(13)</sup> herbal interventions,<sup>(14)</sup> and pragmatic trials.<sup>(15)</sup> Additional extensions are forthcoming. For these and the up-to-date references relevant to this checklist, see [www.consort-statement.org](http://www.consort-statement.org).

## **Appendix 2 - Kmet Quality Assessment**



	Criteria	YES (2)	PARTIAL (1)	NO (0)	N/A
1	Question / objective sufficiently described?				
2	Study design evident and appropriate?				
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?				
4	Subject (and comparison group, if applicable) characteristics sufficiently described?				
5	If interventional and random allocation was possible, was it described?				
6	If interventional and blinding of investigators was possible, was it reported?				
7	If interventional and blinding of subjects was possible, was it reported?				
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? means of assessment reported?				
9	Sample size appropriate?				
10	Analytic methods described/justified and appropriate?				
11	Some estimate of variance is reported for the main results?				
12	Controlled for confounding?				
13	Results reported in sufficient detail?				
14	Conclusions supported by the results?				

## **Appendix 3 - Intervention Fidelity Scale**

B. Borrelli

Treatment fidelity in clinical trials

## Appendix I Treatment fidelity assessment and implementation plan

Treatment Fidelity Strategies, Grouped by Category

Rate: Present, Absent but should be present, and Not Applicable. If present, describe the strategy used for that component.

### Treatment Design

1. Provide information about treatment dose in the intervention condition
  - a) Length of contact (minutes)
  - b) Number of contacts
  - c) Content of treatment
  - d) Duration of contact over time
2. Provide information about treatment dose in the comparison condition
  - a) Length of contact (minutes)
  - b) Number of contacts
  - c) Content of treatment
  - d) Duration of contact over time
  - e) Method to ensure that dose is equivalent between conditions.<sup>1</sup>
  - f) Method to ensure that dose is equivalent for participants within conditions<sup>1</sup>
3. Specification of provider credentials that are needed.
4. Theoretical model upon which the intervention is based is clearly articulated.
  - a) The active ingredients are specified and incorporated into the intervention<sup>1</sup>
  - b) Use of experts or protocol review group to determine whether the intervention protocol reflects the underlying theoretical model or clinical guidelines<sup>1</sup>
  - c) Plan to ensure that the measures reflect the hypothesized theoretical constructs/mechanisms of action<sup>1</sup>
5. Potential confounders that limit the ability to make conclusions at the end of the trial are identified.<sup>1</sup>
6. Plan to address possible setbacks in implementation (i.e., backup systems or providers)<sup>1</sup>
7. If more than one intervention is described, all described equally well.<sup>1</sup>

### Training Providers

1. Description of how providers will be trained (manual of training procedures)
2. Standardization of provider training (especially if multiple waves of training are needed for multiple groups of providers).
3. Assessment of provider skill acquisition.
4. Assessment and monitoring of provider skill maintenance over time
5. Characteristics being sought in a treatment provider are articulated a priori. Characteristics that should be avoided in a treatment provider are articulated a priori.
6. At the hiring stage, assessment of whether or not there is a good fit between the provider and the intervention (e.g., ensure that providers find the intervention acceptable, credible, and potentially efficacious<sup>1</sup>
7. There is a training plan that takes into account trainees' different education and experience and learning styles.<sup>1</sup>

### Delivery of Treatment

1. Method to ensure that the content of the intervention is delivered as specified.
2. Method to ensure that the dose of the intervention is delivered as specified.
3. Mechanism to assess if the provider actually adhered to the intervention plan or in the case of computer delivered interventions, method to assess participants' contact with the information.
4. Assessment of nonspecific treatment effects.
5. Use of treatment manual.
6. There is a plan for the assessment of whether or not the active ingredients were delivered.<sup>1</sup>
7. There is a plan for the assessment of whether or not proscribed components were delivered. (e.g., components that are unnecessary or unhelpful)<sup>1</sup>
8. There is a plan for how will contamination between conditions be prevented<sup>1</sup>
9. There is an a priori specification of treatment fidelity (e.g., providers adhere to delivering >80% of components).<sup>1</sup>

### Receipt of Treatment

1. There is an assessment of the degree to which participants understood the intervention.
2. There are specification of strategies that will be used to improve participant comprehension of the intervention.
3. The participants' ability to perform the intervention skills will be assessed during the intervention period.
4. A strategy will be used to improve subject performance of intervention skills during the intervention period.
5. Multicultural factors considered in the development and delivery of the intervention (e.g., provided in native language; protocol is consistent with the values of the target group).<sup>1</sup>

### Enactment of Treatment Skills

1. Participant performance of the intervention skills will be assessed in settings in which the intervention might be applied.
2. A strategy will be used to assess performance of the intervention skills in settings in which the intervention might be applied.

This checklist is adapted from: Borrelli, B., Sepinwall, D., Ernst, D., Belg, A.J., Czajkowski, S., Bregier, R., DeFrancesco, C., Levesque, C., Sharp, D.S., Ogedegbe, G., Resnick, B., Orwig, D. (2005). A New Tool to Assess Treatment Fidelity and Evaluation of Treatment Fidelity Across Ten Years of Health Behavior Research. *Journal of Consulting and Clinical Psychology*, 73(5), 852-860.

<sup>1</sup>Revisions made by B. Borrelli February, 2010.

## **Appendix 4 - KONTAKT®**

### **Overall Agenda**

### Course Structure for KONTAKT Australia

Session	Participants	Group exercise	Themed discussion	Mission assignments
1	Participant and Parents	I am good at...	Presentation of KONTAKT, review of privacy, goals and milestones  Advanced. How to introduce yourself	Doing a functional analysis table, finding their strengths
2	Participant	Spin the bottle  Optional. Alphabet sentences	Group rules  Advanced. How do I 'see' myself and others in the group?	Supporters  Thought Emotion Action (TEA) table
3	Participant	What has changed?  Optional. Blinking game	Talking about ASD diagnosis  Advanced. Tips on how to explain ASD to others	TEA for a difficult situation based on your goal, e.g. Such as getting angry
4	Participant	EU-Emotion (body)  Optional. Role-play, e.g. resolving a conflict	How do gestures and facial expressions work? Interpreting body language  Advanced. When you do not use non-verbal communication	TEA for a situation requiring the participant to interpret others' body language
5	Participant	Role-play with complex emotions  Optional. What has changed?	Resolving misunderstandings  Advanced. Understanding jokes, irony, sarcasm and white lies	TEA for a situation where the participant started a conversation
6	Participant	Treasure hunt  Optional. Role-play	How to deal with a new social situation?  Advanced. How can you help someone in a new social situation?	TEA for a situation where the participant felt alone and/or excluded
7	Participant	Talking to a stranger  Optional. EU-Emotion (face)	Discussing feeling alone and being teased and/or bullied.  Advanced. Handling challenging situations on social media	TEA for a situation when a participant tried to catch up with someone, but they declined/did not show up  Evaluating and reformulation of individual goals.

Session	Participants	Group exercise	Themed discussion	Mission assignments
8	Participant and Parents	Treasure hunt Optional. Spin the bottle	'Evaluation of my goal milestones'	Reflecting on what to do & say when you go to a cafe, e.g. your own task. Excursion to a café task.
9	Participant	Group excursion (e.g. going to a cafe)	Discussing what one should consider when going out, e.g. at a cafe	TEA of your role in a group excursion
10	Participant	Movie clips about non-verbal communication Optional. Spin the bottle	How can you set a date; handle cancellation? Advanced. How to stay in contact and/or be more than just friends.	TEA for a situation where the participant meets someone new, or someone he/she does not know well.
11	Participant	Joint activity (e.g. baking) Optional. Advanced Treasure hunt	Taking social initiatives (e.g. contacting a person you don't know) Advanced. Connecting through social media	Individually designed mission assignments
12	Participant	Determined by the selected participant	Determined by the selected participant	Individually designed mission assignments
13	Participant	Determined by the selected participant	Determined by the selected participant	Individually designed mission assignments
14	Participant	Determined by the selected participant Group decides on sessions 15 & 16's activity	Determined by the selected participant	Individually designed mission assignments
15	Participant	Determined by the selected participant	Determined by the selected participant	'What I have learnt from KONTAKT' Write 3 positive things about other group members
16	Participant and Parents	Group decides together	Reflecting on how it was to moderate a session: What was difficult? What should a participant consider? Reflecting on what was good or bad in KONTAKT? The lessons learned? What should you consider in the future?	

## **Appendix 5 - KONTAKT®**

### **Fidelity Checklist**

KONTAKT ESSENTIALS			
Setting	1. The Room is free of distractions	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. The lighting is appropriate	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. The furniture is comfortable for the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. The computer/screen/flipchart is visible to all participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. 'Writing equipment' are available if needed (e.g. desk, stationary)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	6. 'Sensory accommodations' are available if needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	7. 'Visual aids' are available if needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Trainers	1. At least two trainers are in the session	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. At least one trainers has received KONTAKT© methodological training and has extensive experience of working with adolescents with ASD	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Prior to this session, the trainers had negotiated their responsibilities within the session	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. The trainers have emergency plans/services ready	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. The trainers have established rapport with the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Participants	Participants are aware of the following:		
	a. It is ok to take a break	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	b. It is ok to use sensory/visual accommodations	<input type="checkbox"/> Yes	<input type="checkbox"/> No
SESSION CHECKLIST			
Preparation	1. Trainers have provided the Session's materials		
	a. Flipchart	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	b. Computer	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	c. Group activities materials	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	d. Examples for the activities and discussions	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	e. Snack	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Trainers have written the session's agenda on the flipchart	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. The participants are sitting in a circle	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. Group rules are visible to the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No



Opening round	1. The session started with an opening round 2. Trainer encouraged the participants to make eye contact and address the other person by name 3. Trainers encouraged all participants to introduce themselves and report their feeling 4. Participants used visual aid for this activity 5. Trainers wrote notes from opening round on the Flipchart	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Reviewing homework	1. Trainers went over each participant's homework individually 2. The trainers provided positive reinforcement 3. If needed, the trainers provided additional instruction to the participants 4. If allowed, the trainers used a participant's homework as an example for the group	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Discussion round	1. The trainers discussed the topic of the week with the participants. <i>If a new topic was introduced, please describe it:</i> <hr/> 2. Each participant had the chance to participate in this round 3. The trainers provided positive comments, feedback and encouragement to the participants all through the discussion 4. The trainers wrote the participants suggestions on the flipchart 5. The group discussed the advanced discussion topic too.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Snack time	1. Trainers provided Snack time to the participants 2. The trainers encouraged social interaction during snack time	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Group exercises	1. The trainers used the original activities in their manual for session 3. <i>If a new activity was introduced, please describe it:</i> <hr/> 2. The trainers described the game to the participants 3. The participants had time to ask their questions regarding the game 4. Everyone had at least one chance to take part in the activity 5. The trainers provided positive comments, feedback and encouragement to the participants all through the activity 6. The group played the optional exercise too	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

Assigning new homework	1. Trainer assigned new homework to the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Trainers described the homework topic sufficiently to the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Trainers described the short-term and long-term consequences to the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. The trainers explained how the participants should think of the consequences of their behaviour	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. The trainer's made sure that the participants understood this activity	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	6. The trainers advised the participants that they can use the help of their supporters if needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Closing round	1. The session ended with a closing round	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. Trainer encouraged the participants to make eye contact and address the other person by name	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Trainers encouraged all participants to share their experience and report their feeling	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. Participants used visual aid for this activity	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. Trainers wrote notes from closing round on the Flipchart	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Overall feedback or comments	1. Did you deviate from the session structure? Why?		
	2. Please provide your overall feedback for the session?		

If you had to deviate from the session structure, please provide an example

Notes:

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## **Appendix 6 - Demographic Questionnaire**

**Curtin University****Participant History Information**

Today's Date:

Participant ID  
number:

-	-	-	-	-
---	---	---	---	---

**Please follow these instructions when filling in the checklist:**

- Use a pen to fill in the checklist
- Answer all questions
- Write your answers as clearly as possible
- If you accidentally mark the wrong box, draw a single line through it and mark the correct box with an X. See the example below.

Example:  
Yes ☒No ☒

## SECTION 1: PARENT/CARER INFORMATION

These first questions are to collect some background information about the parent/carer of the child on the autism spectrum.

1. Please indicate your **relationship** to the child who is on the autism spectrum.

*Note: if more than one person is completing the questionnaire, please tick all applicable boxes\*.*

- ☐ Natural mother (Biological)    ☐ Natural Father (Biological)    ☐ Foster mother  
☐ Foster father    ☐ Adoptive mother    ☐ Adoptive father  
☐ Step mother    ☐ Step father    ☐ Grand mother  
☐ Grand father    ☐ Other, please specify: \_\_\_\_\_

\* Reference: abs.gov.au

2. Please provide your **contact** information.

Parent <b>1</b>	Relationship: _____	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other
Postal address	_____ Number and street                      Suburb/Town                      Post code	
Phone	_____ Home                      Work                      Mobile	
Email:	_____	
Parent <b>2</b>	Relationship: _____	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other
Postal address	_____ Number and street                      Suburb/Town                      Post code	
Phone	_____ Home                      Work                      Mobile	
Email:	_____	

3. Which is the preferred contact?

- ☐ Parent 1    ☐ Parent 2

4. What would best define your marital status\*?

- ☐ Married (married de facto)    ☐ Never married    ☐ Widowed  
☐ Divorced    ☐ Separated  
☐ Other, please specify: \_\_\_\_\_

\*Reference: abs.gov.au

Questions 5-10 are about **Parent 1** of the child on the autism spectrum.

5. In which Country were you born? \_\_\_\_\_
6. What is your first language? \_\_\_\_\_
7. What is your date of birth? \_\_\_\_/\_\_\_\_/\_\_\_\_ (Day/month/year)
8. Please specify your cultural and ethnic group\*:
- |   |   |
|---|---|
| <input type="checkbox"/> Oceanian                   | <input type="checkbox"/> North-west European              |
| <input type="checkbox"/> South and eastern European | <input type="checkbox"/> North African and Middle Eastern |
| <input type="checkbox"/> South-east Asian           | <input type="checkbox"/> North east Asian                 |
| <input type="checkbox"/> Southern and central Asian | <input type="checkbox"/> Peoples of the Americas          |
| <input type="checkbox"/> Sub-Saharan African        | <input type="checkbox"/> Other, please specify: _____     |
9. What is the highest qualification that you have completed\*?
- |   |   |                                      |
|---|---|--------------------------------------|
| <input type="checkbox"/> Did not attend school or did not complete primary school |   |                                      |
| <input type="checkbox"/> Primary school   | <input type="checkbox"/> Year 10                                      | <input type="checkbox"/> High school |
| <input type="checkbox"/> Trade qualification                                      | <input type="checkbox"/> TAFE or alternative diploma or certification |                                      |
| <input type="checkbox"/> Bachelor's degree  | <input type="checkbox"/> Master's degree or higher                    |                                      |
| <input type="checkbox"/> Other education type, please specify: _____              |   |                                      |
10. Which of the following best describe your current work status\*?  
*Note: please tick all that applies.*
- |   |  |                                  |
|---|--|----------------------------------|
| <input type="checkbox"/> Self-employed                        | <input type="checkbox"/> Student                   | <input type="checkbox"/> Retired |
| <input type="checkbox"/> Homemaker/caregiver                  | <input type="checkbox"/> Work on a volunteer basis |                                  |
| <input type="checkbox"/> Out of work but seeking employment   |  |                                  |
| <input type="checkbox"/> Out of work & not seeking employment |  |                                  |
| <input type="checkbox"/> Employed:                            |  |                                  |
| <input type="checkbox"/> Full time                            | <input type="checkbox"/> Part time                 | <input type="checkbox"/> Casual  |

Please provide the following information for all jobs currently held:

Job title	Hours work per week	Main task
1.		
2.		
3.		

\* Reference: abs.gov.au

Questions 11-16 are about **Parent 2** of the child on the autism spectrum

11. In which Country were you born? \_\_\_\_\_

12. What is your first language? \_\_\_\_\_

13. What is your date of birth? \_\_\_\_/\_\_\_\_/\_\_\_\_ (Day/month/year)

14. Please specify your cultural and ethnic group\*:

- |   |   |
|---|---|
| <input type="checkbox"/> Oceanian                   | <input type="checkbox"/> North-west European              |
| <input type="checkbox"/> South and eastern European | <input type="checkbox"/> North African and Middle Eastern |
| <input type="checkbox"/> South-east Asian           | <input type="checkbox"/> North east Asian                 |
| <input type="checkbox"/> Southern and central Asian | <input type="checkbox"/> Peoples of the Americas          |
| <input type="checkbox"/> Sub-Saharan African        | <input type="checkbox"/> Other, please specify: _____     |

15. What is the highest qualification that you have completed\*?

- |   |   |                                      |
|---|---|--------------------------------------|
| <input type="checkbox"/> Did not attend school or did not complete primary school |   |                                      |
| <input type="checkbox"/> Primary school   | <input type="checkbox"/> Year 10                                      | <input type="checkbox"/> High school |
| <input type="checkbox"/> Trade qualification                                      | <input type="checkbox"/> TAFE or alternative diploma or certification |                                      |
| <input type="checkbox"/> Bachelor's degree  | <input type="checkbox"/> Master's degree or higher                    |                                      |
| <input type="checkbox"/> Other education type, please specify: _____              |   |                                      |

16. Which of the following best describe your current work status?

*Note: please tick all that applies\*.*

- |   |  |                                  |
|---|--|----------------------------------|
| <input type="checkbox"/> Self-employed                        | <input type="checkbox"/> Student                   | <input type="checkbox"/> Retired |
| <input type="checkbox"/> Homemaker/caregiver                  | <input type="checkbox"/> Work on a volunteer basis |                                  |
| <input type="checkbox"/> Out of work but seeking employment   |  |                                  |
| <input type="checkbox"/> Out of work & not seeking employment |  |                                  |
| <input type="checkbox"/> Employed:                            |  |                                  |
| <input type="checkbox"/> Full time                            | <input type="checkbox"/> Part time                 | <input type="checkbox"/> Casual  |

*Please provide the following information for all jobs currently held:*

Job title	Hours work per week	Main task
1.		
2.		
3.		

\* Reference: abs.gov.au

Questions 17-27 are about your child on the autism spectrum.

17. In which Country was your child born? \_\_\_\_\_

18. What is your child's first language? \_\_\_\_\_

What language do you speak at home? \_\_\_\_\_

19. What is your child's date of birth? \_\_\_\_/\_\_\_\_/\_\_\_\_ (Day/month/year)

20. What is your child's gender?

☐ Male

☐ Female

☐ Other

21. In 2018, which school year will your child be enrolled in?

☐ 6

☐ 7

☐ 8

☐ 9

☐ 10

☐ 11

22. Is there any history of family medical /psychiatric experiences in the parents or siblings of the child on the autism spectrum?

☐ No

☐ Yes

Relationship: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Relationship: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

Relationship: \_\_\_\_\_

Diagnosis: \_\_\_\_\_

23. Please indicate any major life stresses the family and/or child is currently experiencing or has experienced within the last year\*.

☐ Sibling was born

☐ Separation of parents

☐ Parent remarried

☐ Divorce of parents

☐ Serious illness of a parent

☐ Serious illness of a sibling

☐ Parent died

☐ Grandparent died

☐ Relative or close friend died

☐ Discovery of being adopted

☐ Loss of job by parent

☐ parent obtaining a job

☐ Parent staying less at home

☐ Family member moved in

☐ Sibling left home

☐ Child was abused

☐ Parents fight

☐ Parent going to jail

☐ Changing school

☐ Moving to a new city

☐ Substance abuse by a family member (*Parent or Sibling*)

☐ Other, if not listed: \_\_\_\_\_

\*Reference: Assessing stress in children and youth, Mary Terzian, Kristin A. Moore & Hoan Nguyen, 2010



24. Who is mainly responsible for ensuring that the child on the autism spectrum conducts his/her daily routines?

- ☐ Parent 1                      ☐ Parent 2                      ☐ Sibling  
☐ Both parents              ☐ Other, *please describe*: \_\_\_\_\_

25. Which of the following best describes your child's emotional responses to a challenging situation?

- ☐ Temper tantrums  
☐ Overly responds to situations  
☐ cries/seems sad for no obvious reason  
☐ Laughs/smiles for no obvious reason  
☐ Moods change quickly/for no apparent reason  
☐ Often has blank expression on face  
☐ Little response to what is happening around him/her  
☐ Running away/leaving  
☐ Stimming (e.g. flapping, rocking, pacing)  
☐ Other, *Please specify*: \_\_\_\_\_

Are there any early signs indicating that your child is getting uncomfortable?

- ☐ No  
☐ Yes (*Please specify*): \_\_\_\_\_

26. What steps are you likely to take to deal with your child on the autism spectrum's challenging behaviours? *Please mark all that applies.*

- ☐ Time out                      ☐ Yelling                      ☐ Loss of allowance/privileges  
☐ Ignoring                      ☐ Grounding                      ☐ Physical punishment  
☐ Redirecting                      ☐ Seek professional assistance  
☐ Other, *please describe*: \_\_\_\_\_

27. What strategies have you found helpful in calming down your child on the autism spectrum?

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

Questions 28-29 are about your Family.

28. How many children do you have?

#	Age	Gender	Medical diagnosis
1		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
2		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
3		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
4		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
5		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
6		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____
7		<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	<input type="checkbox"/> No <input type="checkbox"/> Autism spectrum <input type="checkbox"/> Other: _____

29. What is your Family or households **WEEKLY** income before tax\*?

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Negative income | <input type="checkbox"/> Nil income      | <input type="checkbox"/> \$1-\$199       |
| <input type="checkbox"/> \$200-\$299     | <input type="checkbox"/> \$300-\$399     | <input type="checkbox"/> \$400-\$599     |
| <input type="checkbox"/> \$600-\$799     | <input type="checkbox"/> \$800-\$999     | <input type="checkbox"/> \$1,000-\$1,249 |
| <input type="checkbox"/> \$1,250-\$1,499 | <input type="checkbox"/> \$1,500-\$1,999 | <input type="checkbox"/> \$2,000-\$2,499 |
| <input type="checkbox"/> \$2,500-\$2,999 | <input type="checkbox"/> \$3,000-\$3,499 | <input type="checkbox"/> \$3,500-\$3,999 |
| <input type="checkbox"/> \$4,000-\$4,999 | <input type="checkbox"/> \$5,000 or more |  |

\*Reference: abs.gov.au

## SECTION 2: MEDICAL CONDITIONS

We would like to know more about your child's autism diagnosis, other medical conditions, or allergies he/she might have and how these conditions or allergies are treated or managed.

30. When was your child, first diagnosed? \_\_\_\_\_

31. What was your child diagnosed with?

- |   |  |
|---|--|
| <input type="checkbox"/> Autism Spectrum Disorder | <input type="checkbox"/> High Functioning Autism |
| <input type="checkbox"/> PDD-NOS                  | <input type="checkbox"/> Asperger Syndrome       |
| <input type="checkbox"/> Autism                   | <input type="checkbox"/> Other: _____            |

32. Does your child have any food allergies? Please mark all that applies.

- |  |   |                               |
|--|---|-------------------------------|
| <input type="checkbox"/> Peanuts                       | <input type="checkbox"/> Fish/shellfish                             | <input type="checkbox"/> Eggs |
| <input type="checkbox"/> Peanut or nut butter          | <input type="checkbox"/> Soy products                               | <input type="checkbox"/> Milk |
| <input type="checkbox"/> Peanut or nut oils            | <input type="checkbox"/> Tree nuts (walnuts, almonds, pecans, etc.) |                               |
| <input type="checkbox"/> Please list any others: _____ |   |                               |

33. Does your child have seizures or epilepsy (if no, please proceed to question 35)?

- ☐ No    ☐ Yes

a. When was your child diagnosed with seizures or epilepsy? \_\_\_\_\_

b. Please specify your child's seizures type:

- |  |  |                                       |
|--|--|---------------------------------------|
| <input type="checkbox"/> partial seizures :    | <input type="checkbox"/> Simple              | <input type="checkbox"/> Complex      |
| <input type="checkbox"/> Generalized seizures: | <input type="checkbox"/> Absence (petit mal) | <input type="checkbox"/> Myoclonic    |
|  | <input type="checkbox"/> Tonic               | <input type="checkbox"/> Tonic-Clonic |
|  |  | <input type="checkbox"/> Clonic       |
|  |  | <input type="checkbox"/> Atonic       |
| <input type="checkbox"/> Unclassified          |  |                                       |

c. Please describe your child's seizures: \_\_\_\_\_

d. Usually how long does the seizure last? \_\_\_\_\_

e. How frequent is the seizure? \_\_\_\_\_

f. Does your child experience any warnings and/or behaviour changes before the seizure happens?

- ☐ No    ☐ Yes, please specify: \_\_\_\_\_

g. What might trigger a seizure in your child? \_\_\_\_\_

h. How does your child react when the seizure is over? \_\_\_\_\_

i. Are there any appropriate course of action you do when the seizure happens?

☐ No      ☐ Yes, *please specify*: \_\_\_\_\_

34. Does your child have a hearing impairment?

☐ No      ☐ Yes, *please specify*: \_\_\_\_\_

35. Does your child have a visual impairment?

☐ No      ☐ Yes, *please specify*: \_\_\_\_\_

36. Are there any other medical issues regarding your child on the autism spectrum that we should be aware of?

☐ No      ☐ Yes, *please specify*: \_\_\_\_\_

**SECTION 3: HISTORY OF MEDICATION, SUPPLEMENTS, SPECIAL DIETS**

We would like to know more about all the medications your child is currently taking for any medical conditions.

37. Is the child currently on any prescription medication/supplement?

☐ No ☐ yes ☐ not sure

*If yes, please list:*

Name of Medication/Supplement	Dosage of Medication/Supplement (mg)	Total dose of intake per day
1.		
2.		
3.		
4.		
5.		
6.		

38. In the past has the child been on prescription medication to help with his/her symptoms of autism?

☐ No ☐ yes ☐ not sure

*If yes please list:*

Name of Medication/Supplement	Dosage of Medication/Supplement (mg)	Total dose of intake per day	Approximate Start date	Approximate end date
1.				
2.				
3.				
4.				
5.				

39. Please indicate all other medical treatments used to treat the child's symptoms of autism\*?

- |   |                              |                                      |                                |                                   |
|---|------------------------------|--------------------------------------|--------------------------------|-----------------------------------|
| <input type="checkbox"/> Chelating medications                            | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Hyperbaric oxygen Therapy                        | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Supplement vitamins                              | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Herbal supplements such as Gingko or Echinacea   | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Fatty acid supplements                           | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Amino acid supplements like secretin             | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Mineral supplements like iron, zinc or magnesium | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Melatonin  | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| <input type="checkbox"/> Child's diet is limited to help with behavior    |                              |                                      |                                |                                   |
| • Gluten free   | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| • Casein free   | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| • Feingold  | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| • No processed sugars   | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| • No sugars or salicylates  | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |
| • Other: _____  | <input type="checkbox"/> Now | <input type="checkbox"/> In the past | <input type="checkbox"/> Never | <input type="checkbox"/> Not sure |

Acknowledgement: Andrew J. Whitehouse, 2013; May Loo, 2009; Alison E. Golnik & Marjorie Ireland, 2009.

40. Has the diet been helpful?

- ☐ No    ☐ yes    ☐ not sure

## SECTION 4: AUTISM DIAGNOSIS

We would like to know more about the assessments your child on the autism spectrum has undertaken, and how old he/she was when were tested.

41. Has the child ever had any of the following tests for autism diagnosis\*?

☐ No ☐ yes ☐ not sure

*If yes, please tick ALL that apply and tell us HOW OLD the child was when tested.*

	Age at test	Country
<input type="checkbox"/> ADOS (Autism diagnostic Observation Schedule)	_____	_____
<input type="checkbox"/> ADI-R (Autism Diagnostic Interview)	_____	_____
<input type="checkbox"/> CARS-2 (Childhood Autism Rating Scale)	_____	_____
<input type="checkbox"/> M-CHAT (Modified Checklist for Autism in Toddlers)	_____	_____
<input type="checkbox"/> Q-CHAT (Quantitative Checklist for Autism in Toddlers)	_____	_____
<input type="checkbox"/> CAST (Childhood Autism Test)	_____	_____
<input type="checkbox"/> SCQ (Social Communication Questionnaire)	_____	_____
<input type="checkbox"/> PDDBI (Pervasive Developmental Disorders Behaviour Inventory)	_____	_____
<input type="checkbox"/> ASSQ (Autism Spectrum Screening Questionnaire)	_____	_____
<input type="checkbox"/> ASRS (Autism Spectrum Rating Checklist)	_____	_____
<input type="checkbox"/> GARS (Gilliam Autism Rating Scale)	_____	_____
<input type="checkbox"/> CBCL (Childhood Behaviour Checklist)	_____	_____
<input type="checkbox"/> WISC (Wechsler Intelligence Scale for Children)	_____	_____
<input type="checkbox"/> SRS (Social Responsive Scale)	_____	_____
<input type="checkbox"/> VINELAND	_____	_____
<input type="checkbox"/> Other, please specify: _____	_____	_____

\* Reference: Examining the psychometric properties of measures of ASD, Ariel Klein & Robyn Kura, 2014.

## SECTION 5: TREATMENT, TRAINING OR SERVICES

We would like to know more about the treatments, training or services your child has received, and how old he/she was when attending them.

42. Please indicate all other training or therapies or services your child has taken part in:

Treatment/ training/ services	When	Where	Age at Commencing treatment	Number of sessions per week	Number of months	Professional delivering the Therapy
<input type="checkbox"/> Individual psychological treatment	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> CBT	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> General counselling	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Occupational therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Speech therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				

13

<input type="checkbox"/> Physical therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Adaptive Physical Education	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Discrete Trial Training (DTT/ABA)	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> TEACCH	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Neurofeedback	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Pivotal response training	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Individual Social Skills	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Social Skills groups	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Music therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				

14



<input type="checkbox"/> Yoga	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Sensory integration therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Drama therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Dance therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Massage	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Pet therapy	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Transcranial magnetic stimulation	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				
<input type="checkbox"/> Other, please specify: _____	<input type="checkbox"/> Never <input type="checkbox"/> Currently <input type="checkbox"/> In the past	<input type="checkbox"/> At Home <input type="checkbox"/> At school <input type="checkbox"/> Out of School				

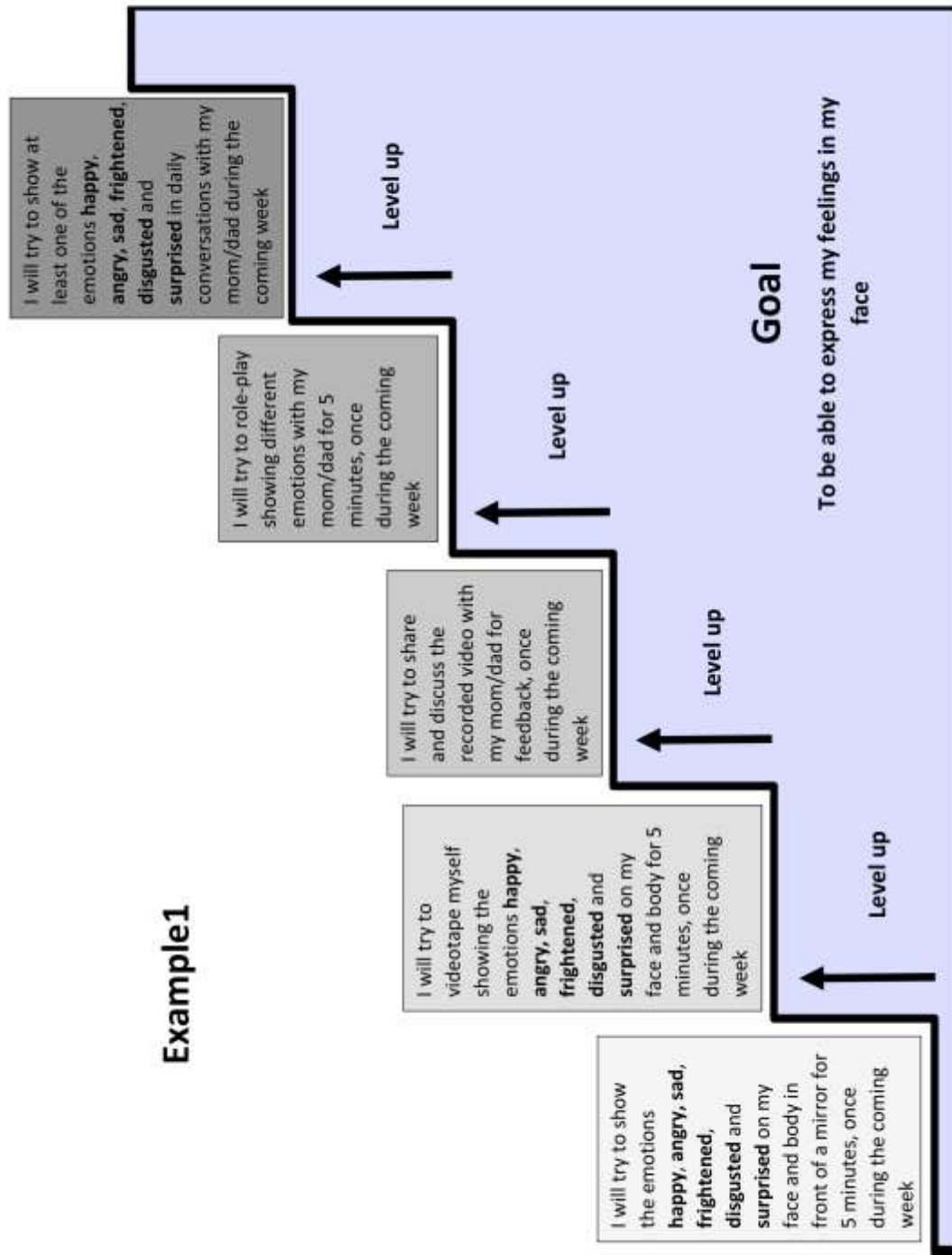
## **Appendix 7 - Goal Setting Resources and Examples**

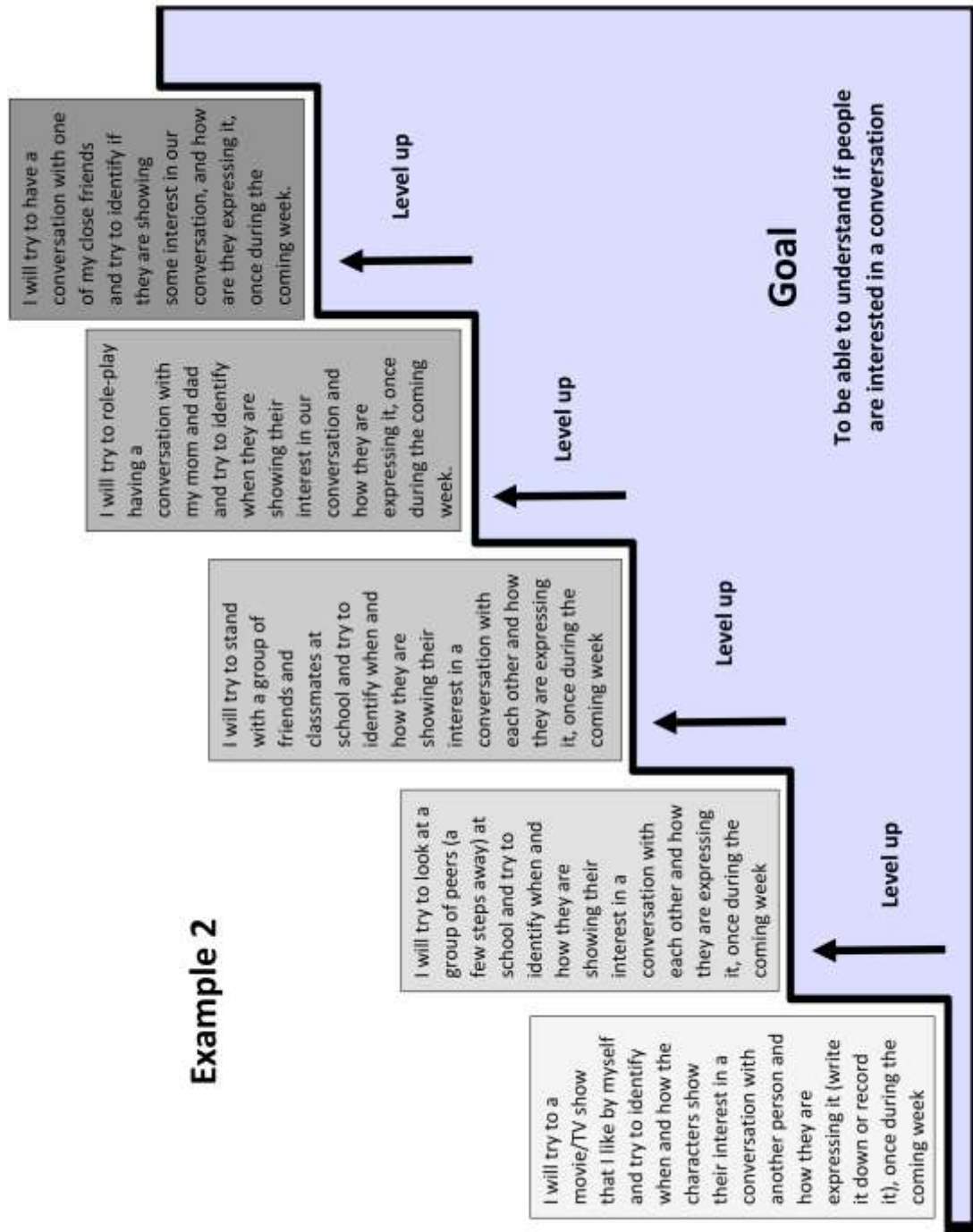
To help the participants with setting their social goals, here are a few suggestions. The trainers can ask the participants to read the examples and identify three goals to work on during the KONTAKT® program.

Goal Examples	
• Talk to someone new	• To meet a friend and greet them
• To become someone's friend	• To be able to show my sadness
• To be able to stay calm in a conflict	• To be able to express my feelings in my face
• To be able to understand if people are interested in a conversation	• To be able to change my behaviour and topic during a conversation
• To be able to do the previous goals more confidently	• To be able to greet someone
• To be able to talk louder/quieter	• To be able to recognise facial expressions and body language
• Ask someone if he/she wants to do something or 'hang out'	• Telephone and talk with someone
• To be able to attend a social event	• To be able to handle a social event
• To be able to introduce myself	• To be able to talk with a group of peers
• To be able to find a group that I like and talk to them	• To be able to talk to new people
• To be more comfortable talking to new people	• To be open to new friendships
• Finding things to do with friends and know their interests	• To be able to greet someone new
• To be able to communicate and hang out with others successfully	• To be more patient in a boring situation
• To be able to talk in front of others (to present in small groups)	• To be able to talk in front of others (to present in large groups)
• To start a conversation confidently	• To feel more confident in small groups

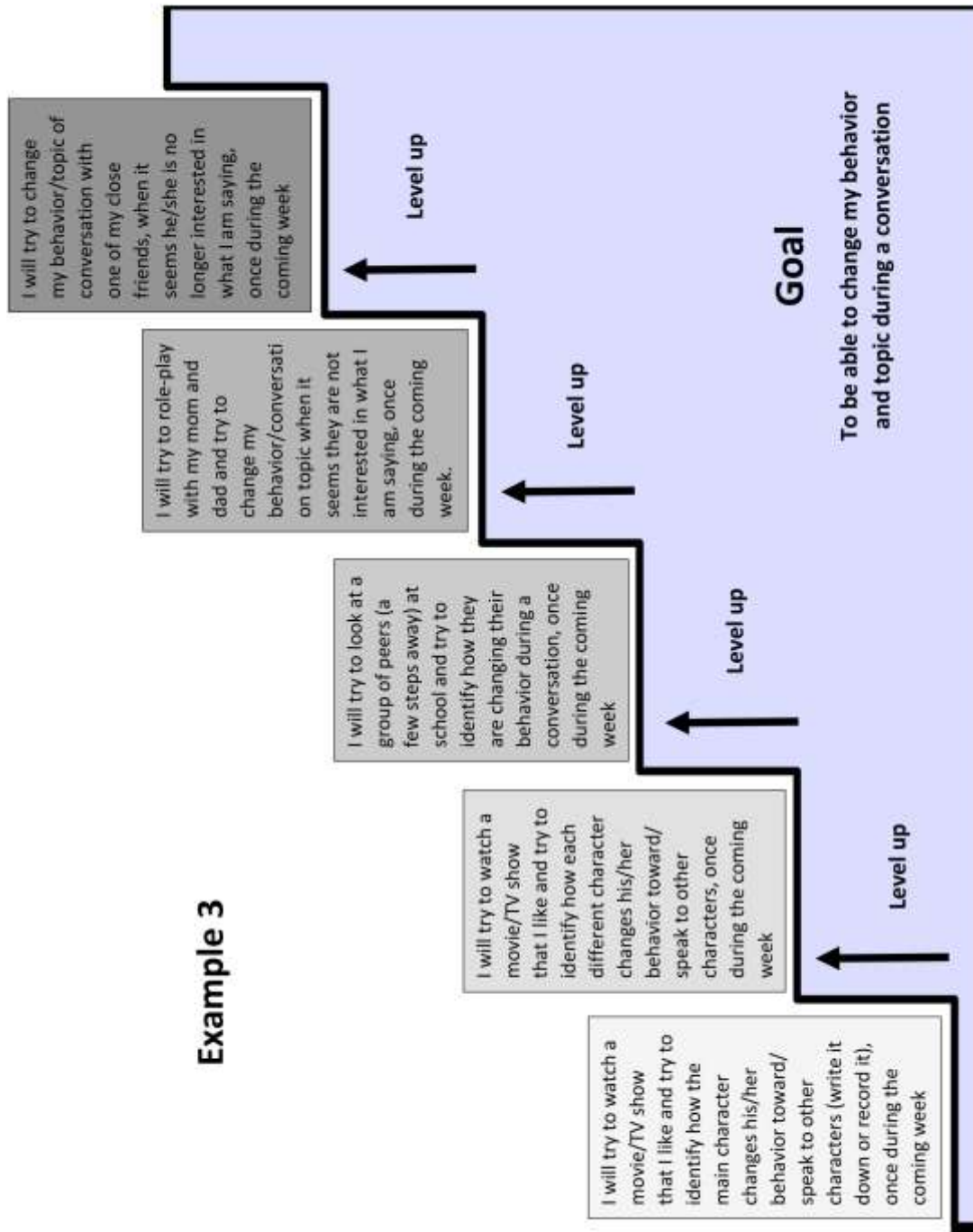
Goal Examples	
• To feel confident in a big crowd	• To manage stress better
• Empathize with others	• To be able to say what I feel
• To initiate small talk	• Express facial expressions
• To understand facial expressions	• Understand facial expressions
• To understand body language	• Expressing myself with body language
• Introduce myself	• Comment on other's conversations
• Approach a group	• Better control of my language and temper
• To feel calmer when meeting new people	• To be able to greet someone
• To be able to continue and comment on a conversation	• To make close friends
• Avoid getting into trouble with others	• To be a better listener
• Deal with being left out	• Manage disagreements better

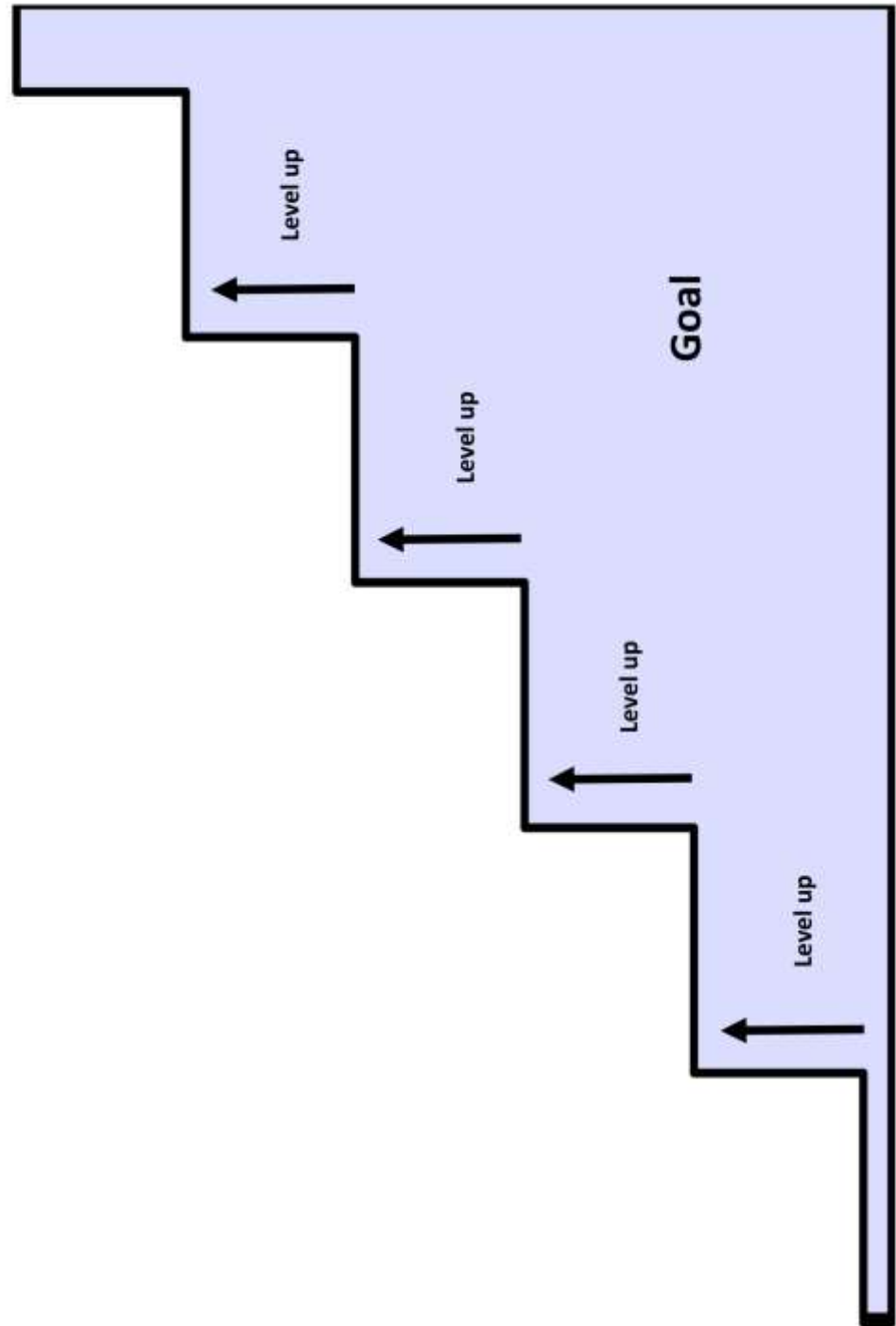
On the following page, there are several examples of completed KONTAKT® goal sheets. A blank goal sheet is also provided.





### Example 3







## **Appendix 8 - Focus Group Questionnaire**

## FOCUS GROUPS – TEENAGERS ON THE AUTISM SPECTRUM

## SECTION 3: FOCUS GROUP GUIDELINES

There are different components in social skills group trainings (*Please see social skills group training; page 2-8*) – Now we would like you to consider:

1. How was your experience with The KONTAKT social skills training?
2. During the social skills group training, which parts of the program were easier for you to do (*for example, role play, group activities, problem solving, group games, initiating the session, finishing the session, home assignments, emotion recognition or expression*)?
3. During the social skills group training, which parts of the program were less easy for you to do (*for example, role play, group activities, problem solving, group games, initiating the session, finishing the session, home assignments, emotion recognition or expression*)?
4. During the social skills group training, did you think that there were some topics missing (in the themed discussions and group exercises)?
5. Could you think of some social skills topics that you wanted to practice in real life during the Home assignments?
6. How has the Social skills training affected your everyday social life? Do you see any change?
7. Do you have some other comments or things that you think is important and we have not discussed?

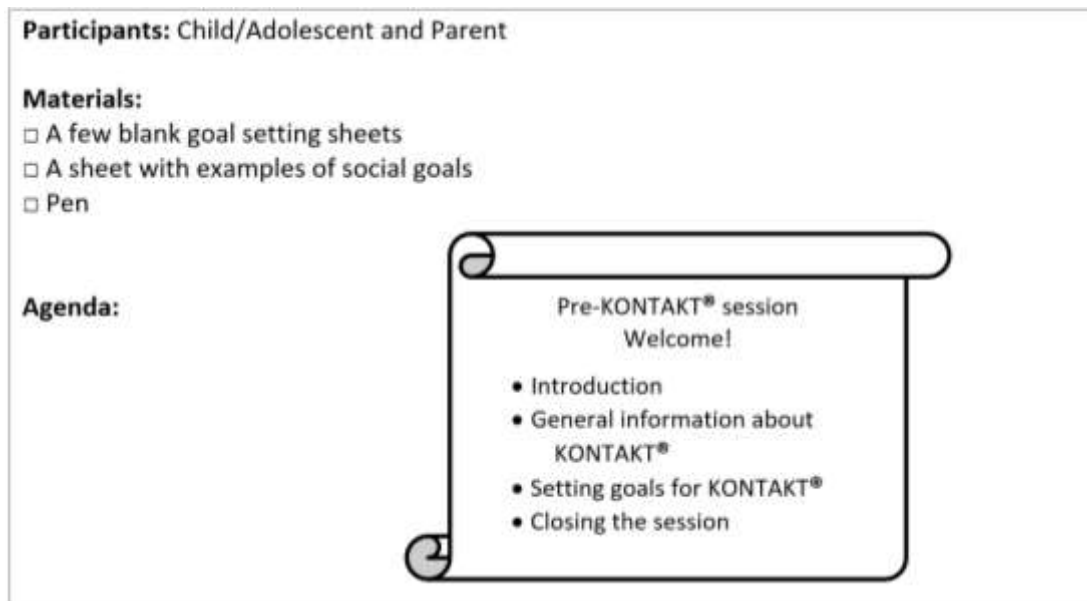
## FOCUS GROUPS – PARENTS ON THE AUTISM SPECTRUM

### SECTION 3: FOCUS GROUP GUIDELINES

There are different components in social skills group trainings (*Please see social skills group training; page 2-8*) – Now we would like you to consider:

1. How was your experience with The KONTAKT social skills training?
2. During the social skills group training, which parts of the program were easier for your child to do (*for example, role play, group activities, problem solving, group games, initiating the session, finishing the session, home assignments, emotion recognition or expression*)?
3. During the social skills group training, which parts of the program were less easy for your child to do (*for example, role play, group activities, problem solving, group games, initiating the session, finishing the session, home assignments, emotion recognition or expression*)?
4. During the social skills group training, did you think that there were some topics missing (in the themed discussions and group exercises)?
5. Could you think of some social skills topics that you wanted your child to practice in real life during the Home assignments?
6. How has the Social skills training affected your child's everyday social life? Do you see any change?
7. Do you have some other comments or things that you think is important and we have not discussed?

## **Appendix 9 - Additions to KONTAKT®**

**Pre KONTAKT® session**

**This session has been added to the original KONTAKT® program to help the trainers become better acquainted with the participants and help them set their individual goals.**

### **Individual goal setting**

The work of the participants in KONTAKT® is largely based on their own social goals. These social goals should be formulated during an individual session before the first KONTAKT® session. In this session, the participant should work together with their parent/carer to formulate one or more relevant intermediate and long-term social goals within the KONTAKT® framework. It is important to point out to parents during this individual session that while they should support their child/adolescent in setting their goals, the goals should be very much determined by their child. If goals are the result of others' wishes (e.g. parents), the participant may feel that they are irrelevant and be less motivated to engage in the KONTAKT® sessions. It is important that the trainers have a constructive dialogue with both the parents and the child/adolescent. The goals must be achievable. That is, they should be potentially attainable given the participants abilities. A list of examples of individual goals and how they should be written can be inspiring if the child/adolescent has difficulty in spontaneously developing their own goals. A list of example goals can also help participants to identify alternatives when chosen goals are unfeasible or outside of the social skills domain, or when parents have set overly optimistic or irrelevant goals. The trainer should review each participant's goal with respect to the following points:

- Operational (Can the goal be translated into behavioural terms?)
- Timely (Is it possible to achieve this goal during the treatment?)
- Direction (Are the goals directed at improving function?)

- Relevance (Are the goals related to social skills?)
- Consensus (Do both the parent and the child/ adolescent agree that this goal is relevant?)
- Focus (Is the goal sufficiently defined, is it too broad or does it cover too many areas?)

Trainers should explain to participants and parents the difference between long-term and intermediate goals. Some participants may perceive intermediate goals as overall goals, but intermediate goals should be smaller steps that work towards overall long-term goals. To help them understand this better you can use the visual aid provided in Appendix A. Participants should prioritise a small number of goals as too many goals are likely to be unachievable in the timeframe of KONTAKT® and have a negative impact on participants focus and motivation.

Examples of long term and intermediate goals:

*"Being able to call a classmate and suggesting a time to meet up."*

- Mapping current thoughts/feelings/behaviours around calling peers.
- Practising what to say when calling and proposing a meeting.
- Practice calling someone, including all the steps this entails.
- Planning what to do if their response is 'No' or the meeting is cancelled.

*"Do not get angry when my parents make decisions for me."*

- Charting and thinking about why you get angry in certain situations.
- Thinking in advance about what you want to say and how to talk to your parents about how you are feeling when you are in a difficult situation, hopefully without getting angry.
- Discussing with the parents if there are areas where you can become more independent/decide more for yourself.

*"Understanding irony and sarcasm."*

- Charting and thinking about/learning more about what irony and sarcasm mean and the situations that you usually misunderstand.
- Talking to someone at home or elsewhere about irony and sarcasm.
- Practice being ironic with others who know you are practising understanding irony and sarcasm.

*"Being able to be diplomatic"*

- Mapping current thoughts/feelings/behaviours about being diplomatic.
- Thinking about what it means to be diplomatic.
- Exercising diplomatic answers and comments, possibly after receiving tips from someone around you.
- Asking someone around you about how they want to be treated, and try out what you have practiced, preferably on several people, then request their feedback.

## Discussion framework & examples

Here are the general questions you might include for each session

### What is...

Discuss the nature of the theme: e.g. What is nonverbal communication, a new social situation, what does it mean to be/feel alone. Concrete questions may include:

- Without using words, how do we know that someone is (insert emotion)?
- How can we tell in a person's face/body/style of walking/hands that they are (insert emotion)?
- Give examples of a new social situation (e.g. first meeting/session in KONTAKT®/being lonely etc.).
- Using an example, describe your thoughts/emotions during the new social situation.
- What does it mean to be alone? Give an example of when you are alone.
- Is there a difference between being alone and being lonely?

### Everyday experiences

Discuss the theme by introducing different examples from the participants' everyday lives, e.g. from school, family outings or spare time. This discussion may be associated with the previous topic of discussion, or may lead the discussion in a new direction. Connecting KONTAKT® to everyday contexts is important in helping participants to understand what to do and to generalize the skills they learn in the sessions to their daily lives. Questions like those below will help participants make this link:

- When have you seen (insert nonverbal behavior): where and what happened just before and after?
- Have you experienced a new social situation, e.g. at home, in school or during your spare time?
- Have you ever been lonely?
- Do you know anyone who has experienced a misunderstanding? What happened?

### Alternative behaviours: difficulties, misinterpretations

Discuss various behaviors linked with the theme. This aspect of the themed discussion may be discussed in different ways and can be approached by using the 'What is ...' and everyday experiences approaches described above. Concrete questions might include:



- Do you find something particularly difficult about (theme/specific situation)?
- Do you find something particularly easy about (theme/particular situation)?
- Are there alternative ways of interpreting that (theme/particular situation)?
- Have you ever experienced that (the situation)? Did it end unexpectedly? Together, can we think of why?
- Although the trainer may have an idea of the solution to a particular social issue the trainer can try to invite the whole group to engage in sharing a specific example and consider alternative behaviors together. Don't forget to provide positive feedback ("e.g. that's an interesting idea! Does anyone else have an alternative suggestion? Let's consider together what consequences might follow").
- Use the "Thought, Emotion, Action" structure if you wish. The idea of partitioning situation / thoughts / emotions / consequences / alternative behaviors is useful throughout KONTAKT®.

### Exchanging strategies

Encourage participants to exchange strategies with others in the group. This will serve both to increase the participants' behavior repertoire and help to build a sense of group camaraderie and sharing (i.e. the participants will better understand how they can support and help each other).

- When you experienced (the situation), what did you do? How did you solve it?
- Do you have any strategies regarding (the situation) that you can share with the rest of the group, to help the others manage if they are ever in the same situation?

### Strengths

Try to finish the discussion by ending with something positive, such as highlighting an adaptive behavior described by a participant, or when a participant described a situation well, or if someone shared a difficulty they have with the group. It is also helpful for the trainer to summarise what was covered in the session—the notes on the flipchart will help.

**Note:** While the approaches described above will be helpful in directing the themed discussions don't forget to follow the groups direction and use general group strategies such as CBT principles, turn taking, listening, taking another's perspective into account, getting positive feedback on behaviors etc.

## **Appendix 10 - Super Chef**

### **Sample session**

### Session Plan 3: Recipe Mini-Pizzas

Activity	Time	Target Area	Description	Resources
Transition	10m	Self-regulation	Chatting with parents and students about cooking homework and settling into this session	Pre-heat oven to 200° C
Activity 1. Sharing cooking experiences	10m	Student shares their views, experiences and interests regarding food, to build rapport with others in the group	Share with the class some of the ingredients that were used in your favourite meals at home.	Workbook homework
Activity 2. Taste Testing	10m	Explore new foods	Taste testing: Using workbook taste & score fruits  Discuss what they like and dislike about the fruits (e.g. smell, taste, texture, how it looks).	Taste test:  Green apple  Red apple  Peaches (tinned)  Apricots (tinned)
Break time	10m	Self-regulation	Stretch, drink/snack/toilet break (VIDEO)	Video recording device and tripod
Activity 3. Making mini pizzas	25m	Follow a recipe in sequential steps to prepare, cook and plate up a meal.  Sequencing steps of a recipe.	Wash hands first:  Prep pizzas at tables and person on 'oven duty' puts pizza's in/out of oven.  Students do complete workbook activities (favourite fruits & word sleuth) whilst waiting for pizzas to cook.	Soap & towels.  See recipe instructions.
Eating food.	10m	Snack time	Eat prepared food & rating it (how many stars/chef hats?)	Laminated star/hat pictures & glue sticks
Clean up	10m	Clean up kitchen area after recipe preparation/cooking using cleaning equipment and products safely and effectively.	Allocate jobs to students  -washing up, drying dishes, wiping down benches, tables, sweep floor.	-Sponge, detergent, dish clothes, paper towels, brush/pan  -Visual prompts for cleaning jobs.
Transition time	5m	Parent feedback	Recap session & feedback to parents.	Workbook- bring back each week.

## Session 3

### MINI PIZZAS



#### INGREDIENTS for 1 serve

- 1 Muffin (cut in half)
- 1 tablespoon Tomato paste
- Shredded cheese

**Options:** Tomato, ham, olives or other preferred topping



#### UTENSILS FOR COOKING:

- Cutting board
- Cutting knife
- Butter knife
- Spoon
- Baking paper
- Oven tray
- Oven gloves

## How to make MINI PIZZAS

	<div>1</div> <p>Pre-heat oven, turn dial to 200° Celsius</p> 
	<div>2</div> <p>Cut muffin in half</p>
	<div>3</div> <p>Spread tomato paste on the inside of the muffins.</p>



4

Cut the tomato into slices.



5

Place tomato and shredded cheese on muffins.



6

Place muffins on an oven tray lined with baking paper



7

Put tray in oven & bake for 10 minutes

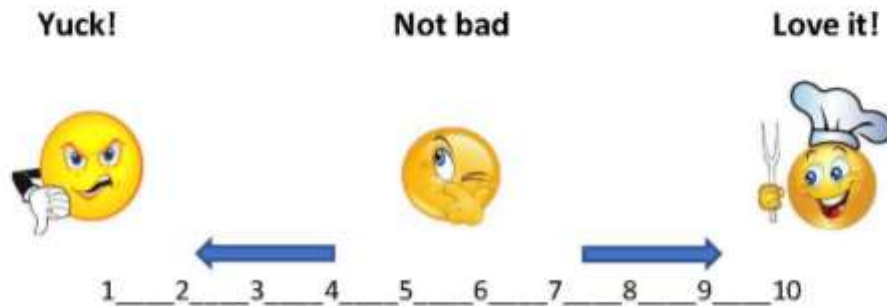


8

Use oven mitts to remove from tray from oven



## Taste testing



On a scale of 1 to 10 what score do you give this food?

Food: \_\_\_\_\_

Score: \_\_\_\_\_

What did you like or dislike about the food?

Food: \_\_\_\_\_

Score: \_\_\_\_\_

What did you like or dislike about the food?

Food: \_\_\_\_\_

Score: \_\_\_\_\_

What did you like or dislike about the food?



Circle your favourite fruits?



**Hidden fruit**

S T R A W B E R R Y  
H O O A P P L E C K  
B L U E B E R R Y L  
W M J Q U W A D N E  
V G E N W H O R Q X  
Z X R N B P R W C J  
X J T R R V A N R S  
V H B A N A N A U R  
X P E A C H G Y W A  
R R A S P B E R R Y

**Word List**

STRAWBERRY BLUEBERRY ORANGE APPLE PEAR  
RASPBERRY BANANA PEACH

Can you find the fruit?

## **Appendix 11 - Super Chef**

### **Fidelity Checklist**

KONTAKT ESSENTIALS			
Setting	1. The Room is free of distractions	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. The lighting is appropriate	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. The furniture is comfortable for the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. The computer/screen/flipchart is visible to all participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. 'Writing equipment' are available if needed (e.g. desk, stationary)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	6. 'Sensory accommodations' are available if needed	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	7. 'Visual aids' for		
	a. Safety while using hot surfaces are placed next to cooking appliance	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	a. Washing hands is set up above the sink	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	b. Knife safety is set up at the kitchen bench	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	8. Ingredients and utensils for the session are placed in the fridge (perishable foods), bench top (dry ingredients) and kitchen drawers (e.g. cutlery, tea towels, utensils and baking paper)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	9. 'Name tags' for the "Job Roaster" are available	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Trainers	1. At least two trainers are in the session	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	2. At least one trainers has received KONTAKT© methodological training and has extensive experience of working with adolescents with ASD	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	3. Prior to this session, the trainers had negotiated their responsibilities within the session	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	4. The trainers have emergency plans/services ready	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	5. The trainers have established rapport with the participants	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Participants	Participants are aware of the following:		
	a. It is ok to take a break	<input type="checkbox"/> Yes	<input type="checkbox"/> No
	b. It is ok to use sensory/visual accommodations	<input type="checkbox"/> Yes	<input type="checkbox"/> No

SESSION CHECKLIST		
Preparation	Trainers have provided the Session's materials a. Cutting board b. Knives c. Cutlery d. Ingredients e. Stationaries f. Apron g. Soap and towel h. Sponge and detergent i. Paper towel j. Snacks	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Opening	1. Participants have been given enough time to transition into group. 2. Trainer have allocated job rosters to the participants 3. Each participant has been given an apron 4. Participants were encouraged to washed their hands	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Cooking	1. Trainers supervised the participants when b. Cutting activities c. Using hot surfaces 2. If needed, the trainers provided additional instruction to the participants	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Activity round	1. Participants were encouraged to washed their hands 2. Participants were encouraged to share their cooking experience 3. Participants were encouraged to rate their food 4. Participants were encouraged to taste the ingredients for next week's recipe and choose the ones they want to use	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Snack time	1. Trainers provided Snack time to the participants 2. The trainers encouraged social interaction during snack time	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
Closing round	1. Participants completed the cleaning roster allocated to them 2. Trainer provided a recap of the session to the participants	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

Overall feedback or comments	Did you deviate from the session structure? Why?	
	Please provide your overall feedback for the session?	

If you had to deviate from the session structure, please provide an example

Notes:

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## **Appendix 12 - Treatment**

### **Inventory of Costs in Patients**

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

### TIC-P

These questions are about your and your child's usage of health care  
as well as any production losses.



Code: \_ - \_ - \_ - \_ - \_

**SECTION A: THERAPY SERVICES**

We would like to know how often adolescents on the autism spectrum use the services of therapists. Your child may receive these services in a number of ways and from a variety of people. We would like you to answer these questions for the past three months in these 2 settings:

1. At school
2. Outside of school (with healthcare professional)

**THERAPY AT SCHOOL**

1. Has your child had any of the following therapies AT SCHOOL IN THE PAST THREE MONTHS?

- ☐ No, Please go to question 2
- ☐ Yes, please complete the table below to the best of your ability, as we understand that not all parents have this information

Type of therapy	Does your child attend the therapy	Number of sessions per week	Duration of the session (minutes)	Who is involved in the therapy?	Do you pay for the therapy? If so, how much does it cost on average PER WEEK?
<b>EXAMPLE ANSWER</b>					
Occupational therapy	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3	30	Trained therapist	Included in tuition
<b>YOUR ANSWER</b>					
School nurse	<input type="checkbox"/> YES <input type="checkbox"/> No				
Physiotherapy	<input type="checkbox"/> YES <input type="checkbox"/> No				
Occupational therapy	<input type="checkbox"/> YES <input type="checkbox"/> No				
Speech Therapy	<input type="checkbox"/> YES <input type="checkbox"/> No				
Music therapy	<input type="checkbox"/> YES <input type="checkbox"/> No				
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No				
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No				
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No				

Code: \_ \_ - \_ \_ - \_ \_ - \_ \_ - \_ \_

**THERAPY OUTSIDE SCHOOL**

We are interested in therapies your child has received outside of school from a healthcare professional (private clinic or as a hospital outpatient)

2. Has your child had any of the following therapies OUTSIDE OF SCHOOL IN THE PAST THREE MONTHS?

☐ No, Please go to Section B

☐ Yes, please complete the table below to the best of your ability

Type of therapy	Does your child attend the therapy	Number of sessions per week	Duration of the session (minutes)	Who does the therapy? And where does it take place?	If known, What is the total cost of each visit?	How much do you pay for each visit?	If you do not pay the total cost, who pays the difference?
<b>EXAMPLE ANSWER</b>							
Speech therapist	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1	60	Speech therapist at private clinic	\$40	\$17	HBF Insurance
<b>YOUR ANSWER</b>							
GP/Family doctor	<input type="checkbox"/> YES <input type="checkbox"/> No						
Nurse	<input type="checkbox"/> YES <input type="checkbox"/> No						
Social worker	<input type="checkbox"/> YES <input type="checkbox"/> No						
Pediatrician	<input type="checkbox"/> YES <input type="checkbox"/> No						
Chiropractor	<input type="checkbox"/> YES <input type="checkbox"/> No						
Alternative medical therapy (e.g. Acupressure, hydrotherapy)	<input type="checkbox"/> YES <input type="checkbox"/> No						
Psychologist	<input type="checkbox"/> YES <input type="checkbox"/> No						
Psychiatrist	<input type="checkbox"/> YES <input type="checkbox"/> No						
Physiotherapy	<input type="checkbox"/> YES <input type="checkbox"/> No						
Occupational therapy	<input type="checkbox"/> YES <input type="checkbox"/> No						
Speech Therapy	<input type="checkbox"/> YES <input type="checkbox"/> No						
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No						

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**SECTION B: OTHER HELP**

We would like to know how often adolescents on the autism spectrum use the support of others. Your child may receive these supports in a number of ways and from a variety of people. We would like you to answer these questions for the past three months by these 4 sources:

- a) At Home
- b) Respite Care
- c) Self-help /support groups (e.g. meeting within the patient association)
- d) From other sources

3. Has your child received any support from the above-mentioned sources IN THE LAST 3 MONTHS?

- ☐ No, Please go to section C
- ☐ Yes, please complete the table below to the best of your ability

Type of Support	Does your child needed support?	Where has your child received this support?	Number of sessions per week	Duration of the session (minutes)	People involved.
<b>EXAMPLE ANSWER</b>					
Help with homework	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2	60	Mom, sister
<b>YOUR ANSWER</b>					
Help with homework	<input type="checkbox"/> YES <input type="checkbox"/> No				
Extra support due to illness	<input type="checkbox"/> YES <input type="checkbox"/> No				
Help with chores	<input type="checkbox"/> YES <input type="checkbox"/> No				
Help with leisure time	<input type="checkbox"/> YES <input type="checkbox"/> No				
Personal assistance at home	<input type="checkbox"/> YES <input type="checkbox"/> No				
Personal assistance at school	<input type="checkbox"/> YES <input type="checkbox"/> No				
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No				
Other, Please describe:	<input type="checkbox"/> YES <input type="checkbox"/> No				

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**SECTION C: MEDICATION AND SUPPLEMENTS**

Please list in the table below all of the REGULAR medications and supplements that your child has been taking during the last 3 months. These may be treatment of various conditions, such as bowel conditions, thyroid problems, pain, sleeping problems, or for everyday health of your child. We would like you to include all prescription and non-prescription medications, and vitamin, mineral, dietary and nutritional supplements, as well as anything from alternative therapists (e.g. herbal medicines)

Name and Dosage of medication	Total dose of medication or supplement given per day (mcg, mg or ml)	How many tablets or mls are in a box or bottle?	How many boxes or bottles do you get per script, per purchase	How many days does each bottle or box last?	Is it a prescription or supplement (NO for supplement and yes for medicine)	How much did you pay for it?
<b>EXAMPLE ANSWER</b>						
Thyroxine (50 mcg)	50 mcg 2 times a day	60 tablets/bottle	1 bottle	30 days	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	\$3.80
Chewable Vitamin C	500 mg Once a day	60 tablets/bottle	1 bottle	60 days	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	\$11.50
<b>YOUR ANSWER</b>						
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
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					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

Please list in the table below any medications and supplements that you have not listed and that your child may have taken for a short time condition IN THE LAST 3 MONTHS (e.g. colds, ear infections, pneumonia, bronchitis, tonsillitis, or skin conditions).

[illegible]

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**SECTION D: WORK, EDUCATION AND PRODUCTION LOSSES**

In this section, we would like to know about you and the other parent/carer's work.

## 1. Which of the following best describe your current work status?

- ☐ Student  
☐ Retired  
☐ Volunteer  
☐ Homemaker or ☐ Caregiver  
☐ Sick pensioner  
☐ Sick leave  
☐ Maternity leave  
☐ Out of work but seeking employment  
☐ Employed

a) How many hours do you regularly work in a week (If you are on sick leave, please indicate how many hours would work if you were healthy)?

\_\_\_\_\_ Hours

b) How many days in a week do you work?

- ☐ 1 day   ☐ 2 days   ☐ 3 days   ☐ 4 days  
☐ 5 days   ☐ 6 days   ☐ all week

## 2. Which of the following best describe the other parent's work status?

- ☐ Student  
☐ Retired  
☐ Volunteer  
☐ Homemaker or ☐ Caregiver  
☐ Sick pensioner  
☐ Sick leave  
☐ Maternity leave  
☐ Out of work but seeking employment  
☐ Employed

c) How many hours does other parent regularly work in a week (If you are on sick leave, please indicate how many hours would work if other parent was healthy)? \_\_\_\_\_ Hours

d) How many days in a week do you work?

- ☐ 1 day   ☐ 2 days   ☐ 3 days   ☐ 4 days  
☐ 5 days   ☐ 6 days   ☐ all week

Code: \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_ - \_\_\_\_

**SECTION E: SICK LEAVE**

In this section, we would like to know about you and the other parent/carer's sick leaves DURING THE PAST 3 MONTHS.

1. Have you had stayed home sick in the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_
2. Has the other parent been sick in the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_
3. Have you had stayed home to care for your child in the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_
4. Has the other parent had stayed home to care for your child in the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_
5. Has your child been sick the in the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_
6. Has your child had regular home schooling during the past 3 months?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_

Code: \_\_\_\_\_

**SECTION F: PRODUCTION LOSSES DURING WORK (WORKING WHILE SICK)**

In this section, we would like to know about you and the other parent/carer's production losses DURING THE PAST 3 MONTHS.

1. Did you go to work when you did not feel good?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_

2. On the scale below you can choose the amount of work you have completed while being sick, compared to the days when you felt good

not done anything at all

0 1 2 3 4 5 6 7 8 9 10

Just like any other day that he/she is feeling well

3. Did the other parent go to work when he / she did not feel well?  
☐ No    ☐ Yes, if so how many days? \_\_\_\_\_

4. On the scale below, please indicate how much homework he / she has completed during the days he / she was not feeling good.

not done anything at all

0 1 2 3 4 5 6 7 8 9 10

Just like any other day that he/she is feeling well

5. During the past 3 months, has your child attended school when he/she was not feeling well?  
☐ No    ☐ Yes, if so how many days?

6. On the scale below, select how much learning / studies he / she has completed during the days during the days he / she was not feeling good

not done anything at all

Just like any other day that he/she is feeling well

0 1 2 3 4 5 6 7 8 9 10



## **Appendix 13 - Emotion Recognition Material**

## Emotion Recognition and Eye-tracking selection

Baseline stimuli	Posttest stimuli	Gender	Level	Valence	Category	Correct answer	Wrong answers
M6Vworried	S4vworried	Female	1	Negative	Afraid	Worried	Scolding, Cold, Cheated
S3vexcited	Y4vexcited	Female	1	Positive	Excited	Excited	Cheered, Caring, Believing
M8Vannoyed	Y2vannoyed	Female	2	Negative	Angry	Annoyed	Adventurous, Lost, Sorry
Y1vtrusting	m7vtrusting	Male	2	Positive	Fond	Trusting	Decided, Ignoring, Disliking
M5Vignored	Y1Vignored	Male	2	Negative	Hurt	Ignored	Thoughtful, Ashamed, Furious
M1vcaring	S5vcaring	Male	2	Positive	Kind	Caring	Joking, Cheated, Cheeky
m5vappreciated	S1vappreciated	Male	3	Positive	Liked	Appreciated	Gloomy, Empty, Easy-going
s2vuneasy	S5vuneasy	Male	4	Negative	Afraid	Uneasy	Oppressive, vibrant, unenthusiastic
m6vdistaste	Y4vdistaste	Female	4	Negative	Disgusted	Distaste	Offended, vigilant, complacent
Y4vreassured	S4vreassured	Female	4	Positive	Liked	Reassured	Rejecting, Persuaded, Keen
Y2vintimate	M2vintimate	Female	4	Positive	Romantic	Intimate	Carefree, tortured, inadequate
s5vappalled	Y5Vappalled	Male	4	Negative	Surprised	Appalled	Suspicious, craving, hostile
m8vvibrant	Y4vvibrant	Female	5	Positive	Excited	Vibrant	Unconcerned, tortured, tense
y2vconfronted	M2vconfronted	Female	5	Negative	Hurt	Confronted	Congratulatory, grave, agonising
s5vempathic	M3vempathic	Male	5	Positive	Kind	Empathic	Refreshed, resigned, concealing
m4vsubdued	y2vsubdued	Female	5	Negative	Sad	Subdued	Condescending, blank, invigorated
s1vgrave	S6vgrave	Female	5	Negative	Sad	Grave	Blank, resigned, deserted
m4vinsincere	y7vinsincere	Male	5	Negative	Sneaky	Insincere	Distraught, unfocused, contradictory

Baseline stimuli	Posttest stimuli	Gender	Level	Valence	Category	Correct answer	Wrong answers
y8vmortified	y7vmortified	Male	5	Negative	Sorry	Mortified	Empathic, inattentive, assertive
m1vstern	s5vstern	Male	5	Negative	Unfriendly	Stern	Assertive, calculating, insincere
m3vresentful	M8Vresentful	Female	5	Negative	Unfriendly	Resentful	Jaded, blank, oppressive
m3vsubservient	Y1vsubservient	Male	5	Negative	Unsure	Subservient	Admiring, miffed, provoked
m2vexonerated	S4vexonerated	Female	6	Positive	Happy	Exonerated	Terrorised, empty, discouraging
s3vafraid	m3vafraid	Male	1 (basic)	Negative	Afraid	Afraid	Sad, Disgusted, Angry
M5Vangry	Y3vangry	Male	1 (basic)	Negative	Angry	Angry	Disgusted, Surprised, Sad
S2vdisgusted	M1vdisgusted	Female	1 (basic)	Negative	Disgusted	Disgusted	Happy, Angry, Afraid
Y8Vhappy	M6Vhappy	Female	1 (basic)	Positive	Happy	Happy	Sad, Afraid, Surprised
S1Vsad	Y7Vsad	Male	1 (basic)	Negative	Sad	Sad	Disgusted, happy, Afraid
M6Vsuprised	Y6Vsurprised	Female	1 (basic)	Positive	Surprised	Surprised	Happy, Sad, Angry
y6vbothered	m4vbothered	Female	3	Negative	Bothered	Bothered	Infuriated, Concerned, Accepted
s5vamused	y3vamused	Male	3	Positive	Happy	Amused	Attracted, Insecure, Hysterical
y6vfascinated	M4vfascinated	Female	3	Positive	Interested	Fascinated	Guarded, Humouring, Bothered
m7vgloomy	S3vgloomy	Male	3	Negative	Sad	Gloomy	Relieved, Remote, Argumentative
M4vbitter	y2vbitter	Female	4	Negative	Angry	Bitter	Self-conscious, Clueless, Adoring
m5vdistracted	S1vdistracted	Male	4	Negative	Bored	Distracted	Concealing, Easy-going, Humiliated
s3venthusiastic	m5venthusiastic	Male	4	Positive	Excited	Enthusiastic	Adored, Humiliating, Hysterical
y6vadoring	S2vadoring	Female	4	Positive	Fond	Adoring	Uneasy, Disbelieved, Tempted
y1vconvinced	m8vconvinced	Female	4	Positive	Sure	Convinced	Admiring, Praised, Welcoming

Emotions	Definition
Admiring	Demonstrating respect for, or approval of, something or someone
Adored	Worshiped
Adoring	Having great affection and warmth toward someone or something
Adventurous	Ready to take risks or to deal with the new and unknown
Agonising	Severely worrying about and thinking through something, in great mental anguish
Anguished	Expressing physical or emotional pain
Annoyed	Feeling or showing angry irritation
Appalled	Affected by strong feeling of shock and dismay
Appreciated	To value and admire highly
Argumentative	Marked by or given to argument
Assertive	To show a very confident personality, to be self-assured
Attracted	To draw by appealing to interest or feeling
Awed	Amazed
Bewildered	Deeply or utterly confused
Blank	To show no feeling or interest, to be unable to remember
Bothered	Worrying about things
Carefree	To feel no responsibilities or worries
Caring	To have a liking or a desire
Cheated	To use unfair or dishonest methods to gain an advantage
Cheeky	Showing disrespect
Cheered	To give hope to or make happier
Cherishing	Feel or show affection for
Cold	Unfriendly
Complacent	To be satisfied with things as they are, not to bother to improve or change things
Concealing	Hiding something from others
Condemned	To pronounce guilty
Condescending	To treat others in a manner implying you are better or know more than they do
Confronted	To face someone, especially in a Challenge
Contrary	One of a pair of opposites
Craving	A great desire or longing
Decided	Free from doubt
Disbelieved	To think not to be true or real

Emotions	Definition
Discomforted	To make uncomfortable or uneasy
Discouraging	Suggesting that someone is inadequate to perform a task
Discredited	To refuse to accept as true or accurate
Disliking	A strong feeling of not liking or approving
Distracted	Having one's thoughts or attention drawn away
Easy-going	Relaxed and casual in style or manner
Empathic	To be able to understand others' emotions or state of being
Empty	To feel unhappy, drained, having no meaning in your life
Enthusiastic	Feeling or showing strong excitement about something
Exonerated	To clear from accusation or blame
Fascinated	To cause someone to be very interested in something or someone
Frustrated	Feeling deep insecurity or dissatisfaction
Furious	Very angry
Guarded	To restrain oneself from expressing emotions, opinions or information
Gloomy	A sad mood
Grave	To be serious in manner and thought
Heartache	Sorrow
Horrified	To Greatly upset or shock someone
Hostile	To feel aggressive and unfriendly towards others
Humiliated	To be made to feel stupid or silly
Humouring	To give into the wishes of
Hysterical	To be unable to control one's excitement
Ignoring	To refuse to notice
Impatient	Showing that you do not want to wait
Inadequate	To lack confidence
Inattentive	Not focusing your attention properly on something or someone
Insecure	To feel lacking in self-confidence, to be unsure of oneself
Intimate	A very close friend or confidant
Invigorated	To feel enlivened as if your energy has been replenished
Jaded	To feel tired or bored because one has had too much of something
Keen	When you want to do more
Listless	Characterized by lack of interest, energy or spirit
Lost	Having the mind absorbed and not aware of surroundings
Mortified	To cause someone to feel very embarrassed and foolish

Emotions	Definition
Mystified	To confuse someone completely
Nostalgic	Having, showing or characterized by a longing for something in the past
Oppressive	To impose one's will on someone, to overpower, to deny him/her choices
Persuaded	To win over to a belief or to a course of action by argument or earnest request
Reassured	To make someone feel less afraid, upset or doubtful
Refreshed	To feel one's energy levels are replenished, and one is ready to start or continue again
Rejecting	To refuse to admit, believe, or receive
Relieved	To put or stand out in relief
Remote	To have no interest in what is going on
Resentful	Having or showing a feeling of anger or displeasure about something unfair
Scolding	To criticize severely or angrily
Seductive	Very attractive
Self-conscious	To feel very aware of what other people think about what you do, say or look like
Stern	Expressing strong disapproval or criticism
Subdued	Not strong, loud, intense, etc
Suspicious	Likely to distrust or be distrustful
Tempted	To get to do something
Tense	To feel nervous and be unable to relax, often in anticipation of something happening
Terrorised	To feel very fearful and frightened because of the actions of someone else
Thoughtful	Considerate of the needs of others
Tortured	To feel immense physical or mental pain because of the direct actions of someone else
Trusting	To be confident and reliable
Unconcerned	To be at ease or unworried
Uneasy	To feel worried or anxious about something, possibly causing restlessness
Unenthusiastic	To feel a lack of excitement about something
Vacant	Showing No indication of what someone is thinking, feeling
Vague	Not thinking or expressing your thoughts clearly
Vibrant	To be lively and energetic in an enthusiastic manner
Watchful	Carefully observant or attentive

**Appendix 14 - Experience**  
**Sampling Method Questions**  
**and Instructions for Youth**

Hi,

Thank you for participating in the Social groups Study.

This information sheet is in regard to the texts you will be receiving over the next nine months.

There will be two sets of texts; one which will be sent to parents, and one to participants.

**Participants:** Please answer the text regarding how you have been feeling on average over the past 24 hours on a scale of 1 to 10.

**Parents:** Please answer the text regarding how you think your child would report their feelings on average over the past 24 hours on a scale of 1 to 10.

### What is going to happen?

Both participants and parents will receive a text once daily between 6 PM and 7:30 PM.

The text will be sent to the mobile number provided during the assessment session.

The text will be sent from **a constant number**, it is suggested that you save it in your phone under the name **KONTAKT® or Cooking**.

The text will ask you to rate how you/or your child has been feeling, on average, over the last 24 hours on a scale of 1 to 10 in regard to 5 emotional states:

**1=Sad / 10=Happy** -> 1 indicating you are very sad to 10 indicating you are very happy.

**1=Lonely / 10=Unlonely** -> 1 indicating you are very lonely to 10 indicating you are very Unlonely.

**1=Angry / 10=Calm** -> 1 indicating you are very angry to 10 indicating you are very calm.

**1=Scared / 10=Unafraid** -> 1 indicating you are very scared to 10 indicating you are very unafraid

**1=Anxious / 10=confident** -> 1 indicating you are very anxious to 10 indicating you are very confident

You are asked to provide an answer to each of the rows and text your responses back to the KONTAKT® number.



For example: participant X has received a text from the KONTAKT® number and now needs to reply.

1=Sad / 10=Happy -> X has been feeling a bit sad so X enters a 3 in response to the first row.

1=Lonely / 10=Unlonely -> X is feeling a bit Unlonely so X enters a 7 in response to the second row.

1=Angry / 10=Calm -> X is feeling very angry so X enters a 1 in response to the third row.

1=Scared / 10=Unafraid -> X is feeling completely unafraid so X enters 10 in response to the fourth row.

1=Anxious / 10=confident -> X is feeling neither anxious nor confident so X enters 5 in response to the fifth row.

This is what the reply sent to the KONTAKT® number would look like: 3,7,1,10,

## **Appendix 15 - Post Group Interviews**

## Post KONTAKT Interview

### Parents

Hi, I Hope you have enjoyed attending the KONTAKT social skills program

We know each person's experience with this program is different. Therefore, we would like to ask you a series of questions to understand how the program went for you and you child and how you both felt about it. These questions will cover the structure and the content of program and your perceptions of it. Please answer each question to the best of your ability.

#### STRUCTURE

Here we ask you a few questions about the structure of the KONTAKT program.

1. What do you think about the number of sessions? Was there enough? Was there too many?
2. Do you think you received enough information about the program prior to it starting?
3. Do you think you received enough information about your child's progress throughout the course of the program?
4. What do you think about the number of parent sessions in KONTAKT? Was there too many, too few or just enough?
5. What do you think about the number teenagers in your child's group? Was there too many, too few or just enough?
6. What do you think about the age range of the teenagers in the group? How did your child feel about it?
7. Did the week day and the time of the sessions work for you?
8. How did your child travel to the groups (e.g. by bus, I drove my child, walked, ...)?
9. Did your child come to groups straight from school?
10. Did you/ your partner stay at the Autism Association centre while your child was at the group? If not, generally what did you do during the session times?
11. Who picked your child from the centre?
12. Did you/your partner have to give up work or other responsibilities to pick up your child from the KONTAKT sessions?

13. Did you buy gifts for/pay your child to participate in the KONTAKT session or to do the missions? Did you use other incentives to encourage them to participate in KONTAKT or complete their missions?
14. How much time did you spend working with your child on the KONTAKT missions? Was it hard for your child to complete the missions? If so, Why?

<b>CONTENT</b>
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As you have seen in your activity book, the KONTAKT group follows the same weekly agenda. I would like to ask for your feedback on each of the aspects of this agenda, as far as you feel able to comment.

1. What do you think about the introduction and Closing rounds on the KONTAKT agenda? How do think your child felt about them?
2. What do you think about the missions/homework assignments included in KONTAKT?  
How do think your child felt about doing these?  
Did you help your child with the missions? Why/why not?  
Did you child have any issues completing the missions/homework assignments?
3. What do you think about snack time in the KONTAKT agenda? How did your child experience this?
4. What do you think about the games and activities that were covered in the KONTAKT sessions? How do think your child felt about them?
5. What do you think about the Discussion round in the KONTAKT agenda? How do think your child experienced this?
6. What do you think about the Excursion? How do think your child experienced this?

<b>Experiences</b>
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1. During KONTAKT your child worked on different topics. These are listed below if you do not remember.
  - Do you think your child has now become better at some of these skills?
  - Do you think that after participating in KONTAKT there are somethings that have become more difficult for your child?

<ul style="list-style-type: none"> <li>• Recognising emotions in face</li> <li>• Recognising emotions in body</li> <li>• Initiating a conversation</li> <li>• Managing conflicts</li> <li>• Managing stress</li> <li>• Joining a group</li> <li>• Understanding Social rules</li> <li>• Compromising</li> <li>• Saying No</li> <li>• Resolving conflicts</li> <li>• Going out to a café</li> <li>• Find new friends</li> <li>• Understanding what others mean by what they are saying</li> <li>• How to get others to understand what you are saying</li> </ul>	<ul style="list-style-type: none"> <li>• Expressing emotions in your face</li> <li>• Expressing emotions in your body</li> <li>• Meeting new people</li> <li>• Social situations</li> <li>• Self confidence</li> <li>• Attending social event</li> <li>• Calling someone on the telephone</li> <li>• Taking turns</li> <li>• Listen to others</li> <li>• Offering or accepting help</li> <li>• Setting a meeting or date</li> <li>• feeling lonely</li> </ul>
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2. Which part of the program do you think has been most important for your child's social development?
3. In addition to the improvements in social skills, did participating in the KONTAKT program influenced your child in any other way?
4. Has participating in the KONTAKT program had any negative effects on your child? Has anything gotten worse as a result of their participation in the KONTAKT program?
5. During the time your child was participating in KONTAKT, how has your life been? Has there been any events that might have effected their behaviour during their participation in this program?
6. When you reflect on your child's participation in the KONTAKT program, what do your child's experience has been? Overall was participating in KONTAKT a positive or negative experience?
7. Is there anything you think the KONTAKT trainers should have done more of?
8. Is there anything you think the KONTAKT trainers should have done less of?

9. That is all on the questions, but please feel to share any information you think relevant concerning your child's participation in the KONTAKT program.
10. How do you feel about having someone who is not on the autism spectrum in the group?
11. If your answer to the previous question is positive, which group age do you prefer, **12-17 OR 17-20?**

**Thank you for being involved in our study!**

## Post KONTAKT Interview

### Participants

Hi, I Hope you have enjoyed attending the KONTAKT social skills program

We know each person's experience with this KONTAKT is different. We would like to ask you a series of questions to get your opinion on how the program went for you and how you felt about it. These questions will cover the structure and the content of KONTAKT and how you experienced it. Please answer each questions to the best of your ability.

### STRUCTURE

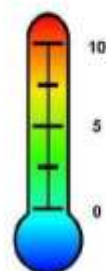
1. At the beginning of each of the KONTAKT sessions you said your name and choose an emotion from a list and shared with the group how strongly you felt it. What was your experience of this activity? Do you remember this went?

How do you feel?



### Emotion Thermometer

Describe how strongly the feeling felt  
10 = Very strong and 0 = Not strong at all




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2. Each session involved some group exercises or games. Which exercises or games do you remember. How did you experience these? (provide some examples)
3. Each session involved group discussions, which ones of these do you remember? How did you experience these? (provide some examples)

4. During a session you and another group member had the opportunity to moderate some parts of a session. What did you do? How did you experience this? (provide some examples)
5. Every session you had to complete a mission, right? Below is an example. How did you experience these? (provide some examples)

*"Imagine you want to try to talk to the person sitting next to you at school. Describe your thoughts, emotions and actions. We will go through your thoughts and emotions together. If you need it, you can ask your parents or other supporters for help."*

Situation Where? When? With who? Which activity?	Thoughts What were your thoughts?	Emotions How did you feel? Select one of the following emotions:	Behaviour What did you do?
		 Angry  Anxious  Satisfied  Happy  Sad Other feelings:	

6. During these sessions there was a time when you could have a rest and eat something right? How did you experience this? (provide some examples of what happened during this part of the group)
7. At the end of each session there was a routine for ending or closing the session, do you remember that? How did you experience this? (provide some examples)
8. What you you think about the number of people in your group? Was is there too many, or not enough? Why?
9. How did you experience the KONTAKT group? Did you like it? Did you make friends? (provide some examples)



CONTENT
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Here I would like to know what you think about each part of the KONTAKT agenda.

1. What do you think about the introduction and closing rounds?

- What was good about the?
- What was less good about them?

2. What do you think about the KONTAKT missions?

- What was good about them?
- What was less good about them?

3. What do you think about the snack time in KONTAKT?

- What was good about it?
- What was less good about it?

4. Here is the list of games and activities covered in KONTAKT. You might have only done some of them. Which ones did you like the most? (please tick as many as you like)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> The blinking game | <input type="checkbox"/> Fruit basket           | <input type="checkbox"/> What has changed |
| <input type="checkbox"/> Treasure hunt     | <input type="checkbox"/> Emotion videos         | <input type="checkbox"/> Square breathing |
| <input type="checkbox"/> Spin the bottle   | <input type="checkbox"/> Alphabet Sentences     | <input type="checkbox"/> Whispering game  |
| <input type="checkbox"/> Emotions game     | <input type="checkbox"/> Heads up!              | <input type="checkbox"/> Head band        |
| <input type="checkbox"/> Charades          | <input type="checkbox"/> 20 Questions           | <input type="checkbox"/> Question ball    |
| <input type="checkbox"/> Role play         | <input type="checkbox"/> Advanced treasure hunt |   |

- Why did you like these activities?

5. Which ones didn't like? (please tick them)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> The blinking game | <input type="checkbox"/> Fruit basket           | <input type="checkbox"/> What has changed |
| <input type="checkbox"/> Treasure hunt     | <input type="checkbox"/> Emotion videos         | <input type="checkbox"/> Square breathing |
| <input type="checkbox"/> Spin the bottle   | <input type="checkbox"/> Alphabet Sentences     | <input type="checkbox"/> Whispering game  |
| <input type="checkbox"/> Emotions game     | <input type="checkbox"/> Heads up!              | <input type="checkbox"/> Head band        |
| <input type="checkbox"/> Charades          | <input type="checkbox"/> 20 Questions           | <input type="checkbox"/> Question ball    |
| <input type="checkbox"/> Role play         | <input type="checkbox"/> Advanced treasure hunt |   |

- Why didn't you like these activities?

6. Here is the list of some of the topics you discussed during the KONTAKT sessions. You might have only covered some of them in your KONTAKT sessions. What did you think about the discussion round in KONTAKT? How did you experience it?

- Friendship
  - Social rules
  - Compromising
  - Saying No
  - Resolving conflicts
  - Going out to a café
  - Moderating a session
  - What is ASD
  - feeling alone and being teased and/or bullied
  - Taking social initiatives (e.g. contacting a person you don't know)
  - Expressing criticism
  - Calling someone
  - Taking turns
  - Stress
  - Offering or accepting help
  - Setting a meeting or date
  - Handling challenging situations on social media
  - Connecting through social media
- What was good about it?
  - What was less good about it?

7. What do you think about the Excursion?

- How did you experience it? What happened?
- What was good about it?
- What was less good about it?

## Experiences

8. The KONTAKT program covers various social skills topics. There is a list below if you do not remember them.
- As a result of attending KONTAKT do you think you have become better at some of these skills? (if so, which ones)
  - Do you think now there are something things that have become more difficult after attending the KONTAKT program? (if so, what? And why do you think this is?)
- |  |                                      |
|--|--------------------------------------|
| • Recognising emotions in face                           | • Expressing emotions on your face   |
| • Recognising emotions in body                           | • Expressing emotions with your body |
| • Initiating a conversation                              | • Meeting new people                 |
| • Managing conflicts                                     | • Social situations                  |
| • Managing stress  | • Self confidence                    |
| • Joining a group  | • Attending a social event           |
| • Understanding Social rules                             | • Calling someone on the telephone   |
| • Compromising   | • Taking turns                       |
| • Saying No  | • Listening to others                |
| • Resolving conflicts                                    | • Offering or accepting help         |
| • Going out to a café                                    | • Setting a meeting or date          |
| • Making new friends                                     | • Feeling lonely                     |
| • Understanding what others mean by what they are saying |                                      |
| • How to get others to understand what you are saying    |                                      |
9. Did attending the KONTAKT program improve your social skills? If so which ones do you think have improved the most? Why do you think this is?
10. Did attending the KONTAKT program impact your life in any other way? (For example, did you stop doing something else to attend the KONTAKT program?)
11. When you think back over the 16 KONTAKT sessions, what do you think was your overall experience? Was attending KONTAKT overall a positive or negative experience? Would you recommend KONTAKT to other teenagers with autism?
12. In the KONTAKT program is there anything you would have liked to have done more of?
13. In the KONTAKT program is there anything you would have liked to have done less of?
14. How do you feel about having someone who is not on the autism spectrum in the group?

## Post SUPER CHEF Interview

### Parents

Hi, I Hope you have enjoyed attending the SUPER CHEF program

We know everyone's experience of this program is likely to be different. We would like to ask you a series of questions to help us understand both your experience and your child's experience of attending the SUPER CHEF program. These questions will cover the structure and the content of program and your experiences in attending. Please answer each question to the best of your ability.

#### STRUCTURE

We would like to know more about how you experienced the structure of the SUPER CHEF program.

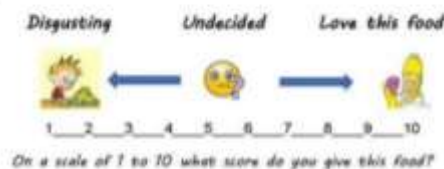
1. Do you think the number of sessions was enough?
2. Do you think you received enough information about the program before it started?
3. Do you think you received enough information about your child's progress during the program?
4. What do you think about the number of parent feedback sessions? Was there too many, too few or just enough sessions?
5. What do you think about the number teenagers in the SUPER CHEF group? Was there too many, too few or just enough?
6. What do you think about the age range of the teenagers in the group? How did your child feel about it?
7. Did the week day and the time of the sessions work you?
8. How did your child travel to the groups (e.g. by bus, I drove my child, walking, ...)?
9. Did your child came to groups straight from school?
10. Did you/ or your partner stay at the Autism Association centre while your child was at the group? What did you do during the time your child was at the session?
11. Who picked your child from the centre after the session?
12. Did you/your partner have to give up work or other responsibilities to pick up your child?
13. Did you have to buy gifts for/pay your child to participate in the SUPER CHEF program? Did you use any other incentives to encourage your child to attend?

CONTENT

Here I would like to know what you think about the SUPER CHEF program.

1. What do you think about the recipes covered in the SUPER CHEF program? How do think your child experienced cooking the recipes?
2. What do you think about the safety measures used in the SUPER CHEF program? How do think your child experienced these?
3. What do you think about the cookbook the activities outlined in the SUPER CHEF manual (such as rating the recipes or taste testing)? How do you think your child experienced these?

*Taste testing*












Food: \_\_\_\_\_

Score: \_\_\_\_\_

What did you like or dislike about the food?

4. What do you think about the approach SUPER CHEF took to accommodating the sensory and visual needs of teenagers with autism? How do you think your child experienced these?

*Safety in the Kitchen*

Knife safety	Knife Safety	Circle the things I might try if I feel anxious?
Use a sharp knife, it cuts easier 	Use your <b>other hand</b> to hold the food item in place. 	Slow breathing 
Pick up knives by the handle, sharp end pointing away from you. 	Curl under the ends of your fingers on the hand holding the food item to keep them away from the knife blade. 	Quiet zone 
Extend your <b>pointer finger</b> on the top of knife to help control the cutting action.		Sensory tool 
		Have a drink/snack 
		Talk to an adult 
		Take a rest break 
		Listen to music 

5. What do you think about the Parent feedback section in the SUPER CHEF manual?

<b>Experiences</b>
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6. Do you think the SUPER CHEF program improved your child's cooking skills?
7. Do you think that attending the SUPER CHEF program impacted your child in ways other than learning cooking skills? If so how? (please provide an example)

Do you think your child has improved in any of the skill areas listed below as a result of attending the SUPER CHEF program?

Do you think any of the areas listed below have become more difficult for your child as a result of attending the SUPER CHEF program?

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Recognising emotions in face</li> <li>• Recognising emotions in body</li> <li>• Initiating a conversation</li> <li>• Managing conflicts</li> <li>• Managing stress</li> <li>• Joining a group</li> <li>• Understanding Social rules</li> <li>• Compromising</li> <li>• Saying No</li> <li>• Resolving conflicts</li> <li>• Going out to a café</li> <li>• Making new friends</li> <li>• Understanding what others mean by what they are saying</li> <li>• How to get others to understand what you are saying</li> </ul> | <ul style="list-style-type: none"> <li>• Expressing emotions in your face</li> <li>• Expressing emotions in your body</li> <li>• Meeting new people</li> <li>• Understanding social situations</li> <li>• Self confidence</li> <li>• Attending social events</li> <li>• Calling someone on the telephone</li> <li>• Taking turns</li> <li>• Listening to others</li> <li>• Offering or accepting help</li> <li>• Setting a meeting or making a date</li> <li>• feeling lonely</li> </ul> |
|---|--|

8. Which part of the SUPER CHEF PROGRAM has been most important for your child's social development?
9. Has participating in the SUPER CHEF program had any negative impact on your child? Has anything gotten worse?
10. How has your life been, while your child was participating in SUPER CHEF? Has there been any particular events that might have affected their behaviour while attending this program?
11. When you think back to the 16 sessions of SUPER CHEF what do you think has been your child's overall experience of attending the program? Overall, was it a positive or negative experience?

12. Is there anything you think we should have done more of during the SUPER CHEF program?
13. Is there anything you think we should have done less of during the SUPER CHEF program?
14. We are all done with the questions, but please feel free to share with us any addition information you think relevant to your child's participation in the SUPER CHEF program.

**Thank you for being involved in our study!**

### Post SUPER CHEF Interview

Hi, I Hope you have enjoyed attending the SUPER CHEF program.

We know everyone's experience of attending this program is likely to have been different. We would like to ask you some questions in order to understand your experiences of the SUPER CHEF program and how you felt about it. These questions will cover the structure and the content of the program and your experiences. Please answer each question to the best of your ability.

#### STRUCTURE

1. Each SUPER CHEF session began with a chat with the trainers. How did you experience this?
2. Each session of the SUPER CHEF program had group activities. How did you experience these? Which ones did you like? Which ones didn't you like? Why do you think this was? (provide some examples)
3. In each session of the SUPER CHEF program you made some food. Which recipes did you like the most? Which did you like the least? Why do you think this was? (provide some examples)
4. Some of the SUPER CHEF sessions included exploring food. How did you experience these? (provide some examples)
5. During the SUPER CHEF sessions the chores were divided between the group? Were you allocated any of the group chores? How did you experience these? (provide some examples)
6. During the SUPER CHEF sessions you had a break when you could have a rest and eat something. How did you experience these breaks? (provide some examples)
7. The SUPER CHEF sessions ended with a closing session. How did you experience these? (provide some examples).
8. What do you think about the number of people in your group? Was it too many, or not enough? Why?

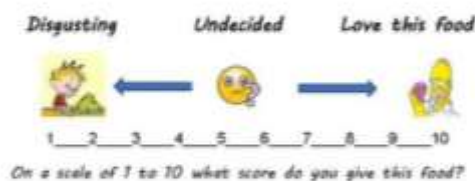


## CONTENT

Here I would like to know what you think about each part of the program.

1. What do you think about how the SUPER CHEF sessions started?
  - What was **good** about it? (provide some examples)
  - What was **less good** about it? (provide some examples)
2. What do you think about the group discussions in the SUPER CHEF program?
  - What was **good** about it? (provide some examples)
  - What was **less good** about it? (provide some examples)
3. The SUPER CHEF Sessions included food tasting. What was your experience of this? What did you like about the food tasting? What didn't you like? (provide some examples)

## Taste testing



Food: \_\_\_\_\_

Score: \_\_\_\_\_

What did you like or dislike about the food?

- What was **good** about it?
  - What was **less good** about it?
4. Here is the list of chores you did. You might have only done some of them.
    - Wash dishes
    - Wipe benchtops
    - Sweep floors
    - Dry dishes
    - Oven duty
    - Utensil duty
    - Ingredients duty
    - Which ones were **easy** for you to do?
    - Which ones were **less easy** to do?

5. During the SUPER CHEF program you did some food related games like the one below. What was your experience of them?



- What was good about them?
  - What was less good about them?
6. In the SUPER CHEF program you had a break time. What was your experience of this?
- What was good about it?
  - What was less good about it?
7. Here is the list of the recipes included in the SUPER CHEF program. You might have only done some of them. Which ones did you like the most? (please tick them)
- |  |   |
|--|---|
| <input type="radio"/> Cheese and tomato toasties | <input type="radio"/> Microwaved scrambled eggs |
| <input type="radio"/> Toasted muffin             | <input type="radio"/> Mini pizza                |
| <input type="radio"/> Fruit pastry               | <input type="radio"/> Savory pastry             |
| <input type="radio"/> Ice-cream Sundae           | <input type="radio"/> Nachos and Guacamole      |
| <input type="radio"/> Puff Pastries              | <input type="radio"/> Mac and cheese            |
| <input type="radio"/> Cheesy baked potato        | <input type="radio"/> Fruit crumble             |
| <input type="radio"/> Pinwheel sandwich          | <input type="radio"/> Choc-coconut balls        |
| <input type="radio"/> Choc chip muffin           | <input type="radio"/> Microwave brownie         |
| <input type="radio"/> Rocky road                 |   |
- Why did you like them?

8. Which ones did you **not** like? (please tick them)

- |  |   |
|--|---|
| <input type="radio"/> Cheese and tomato toasties | <input type="radio"/> Microwaved scrambled eggs |
| <input type="radio"/> Toasted muffin             | <input type="radio"/> Mini pizza                |
| <input type="radio"/> Fruit pastry               | <input type="radio"/> Savory pastry             |
| <input type="radio"/> Ice-cream Sundae           | <input type="radio"/> Nachos and Guacamole      |
| <input type="radio"/> Puff Pastries              | <input type="radio"/> Mac and cheese            |
| <input type="radio"/> Cheesy baked potato        | <input type="radio"/> Fruit crumble             |
| <input type="radio"/> Pinwheel sandwich          | <input type="radio"/> Choc-coconut balls        |
| <input type="radio"/> Choc chip muffins          | <input type="radio"/> Microwave brownies        |
| <input type="radio"/> Rocky road                 |   |

- Why did not you like them?

9. Here is the list of chores you did. You might have only done some of them.

- |                    |                  |                |
|--------------------|------------------|----------------|
| • Wash dishes      | • Wipe benchtops | • Sweep floors |
| • Dry dishes       | • Oven duty      | • Utensil duty |
| • Ingredients duty |                  |                |

- Which one were **easy** for you to do?
- Which ones were **less easy** for you to do?

<b>Experiences</b>
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10. Do you think attending the SUPER CHEF program improved your cooking skills?

11. In addition to the improvements in these cooking skills, did attending the SUPER CHEF program influence you any other way?

- Do you think you now you have become better at any of the skills listed below?
- Do you think any of the skills below have become more difficult?

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Recognising emotions in face</li> <li>• Recognising emotions in body</li> <li>• Initiating a conversation</li> <li>• Managing conflicts</li> <li>• Managing stress</li> <li>• Joining a group</li> <li>• Understanding Social rules</li> <li>• Compromising</li> <li>• Saying No</li> <li>• Resolving conflicts</li> <li>• Going out to a café</li> <li>• Find new friends</li> <li>• Understanding what others mean by what they are saying</li> <li>• How to get others to understand what you are saying</li> </ul> | <ul style="list-style-type: none"> <li>• Expressing emotions in your face</li> <li>• Expressing emotions in your body</li> <li>• Meet new people</li> <li>• Social situations</li> <li>• Self confidence</li> <li>• Attending social event</li> <li>• Calling someone on the telephone</li> <li>• Taking turns</li> <li>• Listening to others</li> <li>• Offering or accepting help</li> <li>• Setting a meeting or date</li> <li>• feeling lonely</li> </ul> |
|---|---|

12. When you think back to the 16 sessions of SUPER CHEF, what has been your overall experience? Overall was it a positive or negative experience? Why was this so? (provide some examples)

13. Is there anything you think we should have done more of?

14. Is there anything you think we should have done less of?

15. That is all the questions. If there anything else you would like to add in regard to your experience of attending the SUPER CHEF program?

**Thank you for being involved in our study!**

## **Appendix 14 - Adverse Events Management Plan**

## Adverse Events Management Plan

### The Development and Evaluation of a Social Skills Group Training intervention for Australian Adolescents on the Autism Spectrum

#### Preventative Measures

**Partaking in pre-intervention assessment (base-line measures) and the obtaining of outcome measures.**

Potential risk of distress will be mitigated through:

1. Incorporating the voluntary nature of participation and ability to withdraw at any point in the Participant Information Statement. The participants will be reminded of the voluntary nature of the study throughout the trial.
2. Experience. As a clinical psychologist, PhD candidate Bahareh Afsharnejad who will be the facilitator collecting the initial base-line measures and the follow up outcome measures has extensive experience in working with individuals on the autism spectrum.
3. Provision of support. As the largest provider of autism services, the Autism Association of Western Australia (AAWA) will be able to support the participants and their families in the same way as they support all their clients.
4. The participants will receive the handout "Do you wish to talk with someone about your experience participating in this project?" as an appendix to the consent form.

#### Preventative Measures during the group intervention/control group activities.

5. Incorporating the voluntary nature of participation and ability to withdraw at any point in the Participant Information Statement. The participants will be reminded of the voluntary nature of the study throughout the trial.
6. Experience. The intervention group will be held by experienced clinicians from AAWA with extensive experience in working with children/adolescents on the autism spectrum in group settings. Clinicians will all be trained in how to deliver the specific intervention by the team that developed the original program.
7. Provision of support. Each group will be led by two facilitators. The participating adolescents will, in case of distress, be able to withdraw to a calm area supported by one facilitator if necessary. In case of the adolescent being anxious, the parent/s will be offered to stay on the premises and will be available to support their child if needed.
8. As the largest provider of autism services, AAWA will be able to support the participants and their families in the same way as they support all their clients.
9. The participants will receive the handout "Do you wish to talk with someone about your experience participating in this project?" as an appendix to the consent form.





### Steps taken if a participant becomes distressed at any time during the trial

1. **Identify** – Early identification of distress will be ensured by the facilitators being observant of visual or verbal signs of distress (i.e. significant changes in behaviour, teary eyes, changes in voice, etc.).
2. **Stop** – If the participant is expressing that he/she is upset or distressed, state for example: *'I can hear/see that you are becoming upset, do you want to take a break and/or leave the group for a while?; Do you want me to call your parent/s?; 'I will remind you that you can end your participation in this trial at any time without any consequences'.*
3. **Empathy/Comfort** –  
*'I can see that this is difficult for you.'*  
*'It sounds like this is a hard time for you.'*
4. **Ensure Stable** – once the participant has calmed down the facilitator will ensure that they are stable by asking *'Are you feeling ok?'*
5. The facilitator will ask about the person's **normal coping strategies** for when they are distressed or upset:  
*'What do you normally do when you are upset? Is there someone you would like to talk to?'*
  - a. If they identify something they normally would do, the facilitator will suggest they partake in these activities at the premises if possible or after they leave.
  - b. If the person wants to speak to someone other than the parent, the facilitator will ask if they can assist the participant to contact them after ensuring that the parent consents to this:  
*'Would you like me to contact this person for you?'*  
If they say yes, the facilitator would take the details and contact the person for the participant.
  - c. If the participant declines assistance to contact someone, the facilitator will make sure that the parent/s are aware that the adolescent may need some extra support after leaving the activity.
6. Ask the participant if they would like to continue or skip this session but come back the next or withdraw from the study.
  - a. If they wish to **continue**, the facilitators will ensure the participant is ok and together with the participant and/or the parent/s discuss how to arrange so that the adolescent can continue the program in the best possible way.
  - b. If they wish to skip the current session but come back: *'Is there something that we can do that would make it easier for you next time?'*
  - c. If they wish to **withdraw**: *'I would like to thank you for your time. As discussed, I would encourage you to do what you would normally do if you are feeling upset or distressed.'*

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*'Would it be alright if I ask your parents if I can contact you tomorrow to check you are ok?'*

If yes, and the parent/s give their consent, one facilitator will contact them the following day.

7. **Refer** - If at any time the participant appeared to be significantly distressed: *'If this feeling of distress continues, you can access support from any of the following'* - print out to be left with participant and his/her parent/s (see final page) which includes the following:
- In person- your local GP, mentor or another trusted person.
  - Via phone
    - **KidsHelpline:** 24 hours a day, 7 days a week, by ringing 1800 55 1800
    - **Lifeline:** 24 hours a day, 7 days a week, by ringing 13 11 14
    - **Eheadspace:** if you are feeling depressed, bullied and/or lonely you can call 9 am – 1 am (AEST), 7 days a week, by ringing 1800 650 890. They can also talk to your parents.
  - Online
    - **KidsHelpline:** counsellors are available to chat online. Go to: <https://kidshelpline.com.au/teens/get-help/webchat-counselling/>
    - **Lifeline:** counsellors are available to chat online 10pm-7am. You will need to complete a few pre-chat questions on their website before beginning. Go to: <https://www.lifeline.org.au/get-help/online-services/crisis-chat>



Curtin University  
School of Occupational Therapy and Social Work



**Do you wish to talk with someone about your experience participating in this project?**

*If yes, there are a number of options:*

1. You can talk to your parents and/or make an appointment with your doctor, your mentor or someone you trust and/or by asking your parents to make an appointment.

- You can talk to someone **over the phone**. You can call:
  - **KidsHelpline:** 24 hours a day, 7 days a week, by ringing 1800 55 1800
  - **Lifeline:** 24 hours a day, 7 days a week, by ringing 13 11 14
  - **Eheadspace:** if you are feeling depressed, bullied and/or lonely you can call 9 am – 1 am (AEST), 7 days a week, by ringing 1800 650 890. They can also talk to your parents.

3. You can 'chat' with someone **online**.

- **KidsHelpline:** counsellors are available to chat online. Go to:  
<https://kidshelpline.com.au/teens/get-help/webchat-counselling/>
- **Lifeline:** counsellors are available to chat online 10pm-7am. You will need to complete a few pre-chat questions on their website before beginning. Go to:  
<https://www.lifeline.org.au/get-help/online-services/crisis-chat>

**Appendix 17 - Human  
Research Ethics Approval  
Letter**



03-May-2017

Name: Sonya Girdler  
Department/School: School of Occupational Therapy and Social Work  
Email: Sonya.Girdler@curtin.edu.au

Dear Sonya Girdler

**RE: Ethics approval**  
**Approval number: HRE2017-0245**

Thank you for submitting your application to the Human Research Ethics Office for the project **The Development and Evaluation of a Social Skills Group Training intervention for Australian Adolescents on the Autism Spectrum**.

Your application was reviewed by the Curtin University Human Research Ethics Committee at their meeting on **03-May-2017**.

The review outcome is: **Approved**.

Your proposal meets the requirements described in National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007)*.

Approval is granted for a period of one year from **03-May-2017** to **03-May-2018**. Continuation of approval will be granted on an annual basis following submission of an annual report.

Personnel authorised to work on this project:

Name	Role
Afsharnejad, Bahareh	Student
Girdler, Sonya	CI
Falkner, Marita	Co-Inv
Bolto, Sven	Co-Inv
Craig, Belinda	Co-Inv

#### Standard conditions of approval

1. Research must be conducted according to the approved proposal
2. Report in a timely manner anything that might warrant review of ethical approval of the project including:

- proposed changes to the approved proposal or conduct of the study
  - unanticipated problems that might affect continued ethical acceptability of the project
  - major deviations from the approved proposal and/or regulatory guidelines
  - serious adverse events
3. Amendments to the proposal must be approved by the Human Research Ethics Office before they are implemented (except where an amendment is undertaken to eliminate an immediate risk to participants)
  4. An annual progress report must be submitted to the Human Research Ethics Office on or before the anniversary of approval and a completion report submitted on completion of the project
  5. Personnel working on this project must be adequately qualified by education, training and experience for their role, or supervised
  6. Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, that bears on this project
  7. Changes to personnel working on this project must be reported to the Human Research Ethics Office
  8. Data and primary materials must be retained and stored in accordance with the [Western Australian University Sector Disposal Authority \(WAUSDA\)](#) and the [Curtin University Research Data and Primary Materials policy](#)
  9. Where practicable, results of the research should be made available to the research participants in a timely and clear manner
  10. Unless prohibited by contractual obligations, results of the research should be disseminated in a manner that will allow public scrutiny; the Human Research Ethics Office must be informed of any constraints on publication
  11. Ethics approval is dependent upon ongoing compliance of the research with the [Australian Code for the Responsible Conduct of Research](#), the [National Statement on Ethical Conduct in Human Research](#), applicable legal requirements, and with Curtin University policies, procedures and governance requirements
  12. The Human Research Ethics Office may conduct audits on a portion of approved projects.

**Special Conditions of Approval**

**This letter constitutes ethical approval only.** This project may not proceed until you have met all of the Curtin University research governance requirements.

Should you have any queries regarding consideration of your project, please contact the Ethics Support Officer for your faculty or the Ethics Office at [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au) or on 9266 2784.

Yours sincerely



Professor Peter O'Leary  
Chair, Human Research Ethics Committee

## **Appendix 18 - Consent Forms and Participant Information Sheets**



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**APPENDIX C1: CONSENT FORM FOR THERAPISTS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

Participant Name	
Participant Signature	
Postal Address	
Email Address	
Contact Phone Number	
Date	

**Curtin University**

*The Development and Evaluation of a Social Skills Group Training for  
Australian Adolescents on the Autism Spectrum*

Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project.

Researcher Name	Bahareh Afsharnejad
Researcher Signature	
Date	



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**APPENDIX C2: CONSENT FORM FOR ADOLESCENTS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

Participant Name	
Participant Signature	
Date	

Parent/ Guardian Name	
Parent/ Guardian Signature	
Date	



**Curtin University**

*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project.

Researcher Name	Bahareh Afsharnejad
Researcher Signature	
Date	



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**APPENDIX C2: CONSENT FORM FOR ADOLESCENTS**

HREC Project Number:	HRE2017-0245
Project Title:	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
Principal Investigator:	Associate Professor Sonya Girdler
Version Number:	4
Version Date:	29/06/2017

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

- ☐ **I do**    ☐ **I do not**    Consent to being video recorded during at least three KONTAKT sessions
- ☐ **I do**    ☐ **I do not**    Consent to being texted during KONTAKT

Participant Name	
Participant Signature	
Date	

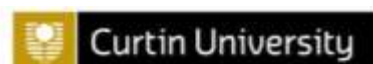
Parent/ Guardian Name	
Parent/ Guardian Signature	
Date	

**Curtin University**

*The Development and Evaluation of a Social Skills Group Training for  
Australian Adolescents on the Autism Spectrum*

Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project.

Researcher Name	Bahareh Afsharnejad
Researcher Signature	
Date	



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**APPENDIX C3: CONSENT FORM FOR FAMILIES/CARERS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

Participant Name	
Participant Signature	
Postal Address	
Email Address	
Contact Phone Number	
Date	

**Curtin University**

*The Development and Evaluation of a Social Skills Group Training for  
Australian Adolescents on the Autism Spectrum*

Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project.

Researcher Name	Bahareh Afsharnejad
Researcher Signature	
Date	



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**APPENDIX C3: CONSENT FORM FOR FAMILIES/CARERS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Version Number:</b>	5
<b>Version Date:</b>	06/06/2017

- I have read the information statement version listed above and I understand its contents.
- I believe I understand the purpose, extent and possible risks of my involvement in this project.
- I voluntarily consent to take part in this research project.
- I have had an opportunity to ask questions and I am satisfied with the answers I have received.
- I understand that this project has been approved by Curtin University Human Research Ethics Committee and will be carried out in line with the National Statement on Ethical Conduct in Human Research (2007).
- I understand I will receive a copy of this Information Statement and Consent Form.

- ☐ **I do**    ☐ **I do not**    Consent to my child being video recorded during at least three KONTAKT sessions  
☐ **I do**    ☐ **I do not**    Consent to being texted during KONTAKT  
☐ **I do**    ☐ **I do not**    Consent to being emailed about new research in the ASD field

Participant Name	
Participant Signature	
Postal Address	
Email Address	
Contact Phone Number	
Date	

**Curtin University**

*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

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Declaration by researcher: I have supplied an Information Letter and Consent Form to the participant who has signed above, and believe that they understand the purpose, extent and possible risks of their involvement in this project.

Researcher Name	Bahareh Afsharnejad
Researcher Signature	
Date	





*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix F1: THERAPISTS INFORMATION STATEMENT**

**FOCUS GROUPS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

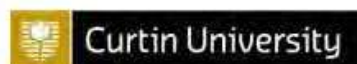
Stress, anxiety and mental health concerns due to difficulty with social interaction and communication can significantly impact adolescents on the autism spectrum. These effects can follow adolescents with autism throughout life, resulting in reduced opportunities for education, employment and reduced overall well-being. Social skills group training has shown some effectiveness in improving the social and emotional skills of people on the autism spectrum. However, the development of such social skills training rarely involves adolescents on the autism spectrum and their parents. We aim to address this research need through exploring the experiences of therapists, teenagers on the autism spectrum and their parents during the design of homework and topics of the social skills group training sessions for adolescents on the autism spectrum.

**What am I being asked to do?**

To help us understand what should be included in a social skills group training, we would like to hear your experiences and thoughts. This will help us to improve future training programs. The focus groups will include approximately 8 therapists working with individuals on the autism spectrum. Participation will involve you:

- **Reading an Information package**, before coming to the focus group, you will be provided with an information package. In the package you will find an information sheet about social skills group training and a short questionnaire about the information provided, which you will complete before coming to the focus group.
- **Participating in a 60-90 minute focus group**, the questions will focus on what you think about social skills group training and what could be done better or what could





### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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be included (such as what topics do you prefer or what tasks are hard to do). This will be a small group of 4 to 8 people. The length of time for the focus group will depend on how much you want to talk, but will last no longer than 90 minutes. You can have a copy of the questions in advance and the focus group will be audio-recorded so we can listen and analyse it later. After the interview, we will give you a written copy of the recording for you to check that it is an accurate representation of your experience.

There will be no costs for you to participate in the focus group and you will not be paid for participating in the focus group.

#### **Who is doing the research?**

This project is being conducted by Bahareh Afsharnejad, who is a PhD candidate under the supervision of Associate Professor Sonya Girdler (principle investigator), Professor Sven Bölte and Dr Marita Falkmer from the School of Occupational Therapy and Social Work, Curtin University. This project is funded by Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

There may be no direct benefit to you from participating in this research. We hope that the results of this research will allow us to develop a more effective and acceptable social skills intervention for adolescents with autism.

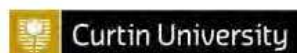
#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

Apart from giving up your time, there are no foreseeable risks from this research project. We have been careful to make sure that the focus group questions do not cause you any distress. But, if you feel anxious about any of the questions you do not need to answer them. If the questions cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. Each data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, such as surveys, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7



***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The evaluation results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

**Will you tell me the results of the research?**

If you wish, at the end of the research (in about 18-24 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

**Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team, Curtin University or the Autism Association of Western Australia. If you choose to leave the study we will use any data we have collected unless you tell us not to.

**What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr. Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in the focus group, we will ask you to sign a consent form just before the focus group starts. Signing the consent form tells us that you understand what you have read and agree to be in the evaluation. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

**Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

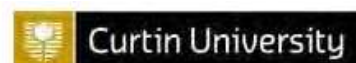


Curtin University

*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

Bahareh Afsharnejad  Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer  Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler  Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172





*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix F3: ADOLESCENT WITH ASD INFORMATION STATEMENT**  
**FOCUS GROUPS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

Many teenagers can experience uncertainty and confusion. These feelings can often be worsened by difficulties in talking with, and communicating with peers and friends. Social skills groups, or groups that help people to learn and practice different skills including holding conversations, reading body language and coping strategies, can help to improve skills and confidence in social settings. To date, there has been little involvement of teenagers and their parents in developing these groups. We would like to talk to you about your experiences, to help us to design a social skills group for teenagers.

**What am I being asked to do?**

We need your help to design a social skills group. To help us to understand what should be included, we would like to hear your experiences or thoughts. The focus group will include approximately 8 teenagers on the autism spectrum. Participation will involve you:

- **Reading an Information package,** before coming to the focus group, you will be provided with an information package. In the package you will find an information sheet about social skills





### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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group training and a short questionnaire about the information provided, which you will fill before coming to the focus group.

- **Participating in a 60-90 minute focus group**, the questions will focus on what you think about the social skills group training and what could be done better or what could be included (such as what topics do you prefer or what task is hard to do). This will be a small group of 4 to 8 people. The length of time for the focus group will depend on how much you want to talk, but will not be longer than 90 minutes. You can have a copy of the questions in advance and the focus group will be audio-recorded so we can listen and analyse it later. After the interview, we will give you a written copy of the recording for you to check that it is an accurate representation of your experience.

There will be no costs for you to participate in the focus group and you will not be paid for participating in the focus group.

#### **Who is doing the research?**

This project is being conducted by Bahareh Afsharnejad, who is a PhD candidate under the supervision of Associate Professor Sonya Girdler (principle investigator), Professor Sven Bolte and Dr. Marita Falkmer from the School of Occupational Therapy and Social Work, Curtin University. This project is funded by Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

You will receive two free movie tickets for participating in this focus group. We hope that the results of this research will allow us to identify the benefits of involving teenagers on the autism spectrum and their parents and the therapists during the development phase and develop adolescent friendly homework and training sessions.

#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

Apart from giving up your time, there are no foreseeable risks from this research project. We have been careful to make sure that the focus group questions do not cause you any distress. But, if you feel anxious about any of the questions you do not need to answer them. If the questions cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the





Curtin University

### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

data. We will not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, such as surveys, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The evaluation results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

If you wish, at the end of the research (in about 18-24 months) we will contact you and provide you with a summary of the results. Results will not be individual, but based on all the information we collect and review as part of the research.

#### **Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr. Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in the focus group, we will ask you to sign a consent form just before the focus group starts. Signing the consent form tells us that you understand what you have read and agree to be in the evaluation. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

#### **Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08)



***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

Bahareh Afsharnejad Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix F2: FAMILY/CARER INFORMATION STATEMENT**

**FOCUS GROUPS**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

Stress, anxiety and mental health concerns due to difficulty with social interaction and communication can significantly impact teenagers on the autism spectrum. These effects can follow teenagers with autism throughout life, resulting in reduced opportunities for education, employment and reduced overall well-being. Social skills group training has shown some effectiveness in improving the social and emotional skills of people on the Autism spectrum. However, the development of such social skills training rarely involves teenagers on the autism spectrum and their parents. We aim to address this research need through exploring the experiences of therapists, teenagers on the autism spectrum and their parents during the design of homework and topics of the social skills group training sessions for adolescents on the Autism spectrum.

**What am I being asked to do?**

To help us understand what should be included in a social skills group training, we would like to hear your experiences or thoughts. This will help us to improve these training in the future. The focus groups will include approximately 8 families/carers of teenagers on the autism spectrum. Participation will involve you:

- **Reading an Information package**, before coming to the focus group, you will be provided with an information package. In the package you will find an information sheet about social skills group training and a short questionnaire about the information provided, which you will complete before coming to the focus group.





### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

- **Participating in a 60-90 minute focus group**, the questions will focus on what you think about the social skills group training and what could be done better or what could be included (such as what topics do you prefer or what tasks are hard). This will be a small group of 4 to 8 people. The length of time for the focus group will depend on how much you want to talk. You can have a copy of the questions in advance and the focus group will be audio-recorded so we can listen and analyse it later. After the interview, we will give you a written copy of the recording for you to check that it is an accurate representation of your experience.

There will be no costs for you to participate in the focus group and you will not be paid for participating in the focus group.

#### **Who is doing the research?**

This project is being conducted by Bahareh Afsharnejad, who is a PhD candidate under the supervision of Associate Professor Sonya Girdler (principle investigator), Professor Sven Bolte and Dr. Marita Falkmer from the School of Occupational Therapy and Social Work, Curtin University. This project is funded by Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

There may be no direct benefit to you from participating in this research. We hope that the results of this research will allow us to identify the benefits of involving teenagers on the autism spectrum and their parents and the therapists during the development phase and develop adolescent friendly homework and training sessions.

#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

Apart from giving up your time, there are no foreseeable risks from this research project. We have been careful to make sure that the focus group questions do not cause you any distress. But, if you feel anxious about any of the questions you do not need to answer them. If the questions cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. Each data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We not let others know the information unless you give us permission or if the law says we need to.



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, such as surveys, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The evaluation results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

If you wish, at the end of the research (in about 18-24 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

#### **Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr. Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in the focus group, we will ask you to sign a consent form just before the focus group starts. Signing the consent form tells us that you understand what you have read and agree to be in the evaluation. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

#### **Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

Bahareh Afsharnejad Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172





*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix P2: ADOLESCENT WITH ASD INFORMATION STATEMENT**  
**PILOT STUDY**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The development and Evaluation of a social Skills Group Training for Australian Teenagers on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	2
<b>Version Date:</b>	09/05/2017

**What is the project about?**

Many teenagers find social situations difficult, and this is often especially true for teenagers with Autism. Learning what social skills are and having an opportunity to practice these is likely to help young people like yourself.

KONTAKT is a social skills group which originated in Sweden and Germany. These groups involve learning social rules, and social skills such as initiating and maintaining conversations, understanding facial expressions and body language, problem-solving everyday situations and developing effective coping strategies. These groups have been found to be effective overseas and we believe an Australian version of KONTAKT may help Australian teenagers.

We need your help to evaluate these groups. You are being asked to take part in the first stages of the program. In this stage, you will be asked to complete a few questions to determine if you are able to participate, if you are eligible, you will be asked to take part in either the KONTAKT social skills group or the Cool Kitchen cooking group.

**What am I being asked to do?**

To help us evaluate the KONTAKT Australia program, we would like to know what you think. This will help us improve social skills group trainings in the future. The evaluation will include approximately 30 teenagers on the Autism Spectrum and their families/carers and the therapists delivering the program. Participation will involve you:



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

- **Participating in an evaluation (60-90 minutes)**, to get to know you better, we are going to ask you some questions about how you feel about your life, how you recognise emotions, and how you communicate and interact with others. After 20 weeks we will invite you to participate in the same evaluation to examine how your skills have changed. We will remind you of this second evaluation in advance. The evaluation will be delivered in two formats: filling out a few questionnaires, and watching videos and answering some questions. The questionnaires will be given to you in paper copy (more details are on page 4).
- **Participating in one of two programs:**
  1. **Cool Kitchen Cooking Group**: This is a cooking class that will be held weekly at one of the Autism Association of Western Australia Sites, during school term 3 and term 4, 2017 for 20 weeks. We will invite you to attend a small group of 6 to 8 teens. The class will be guided by leaders trained to work with teenagers on the Autism spectrum for an hour and a half.
  2. **KONTAKT Australia**: This is a social skills group training class that will occur weekly at one of the Autism Association of Western Australia Sites, during term 3 and term 4, 2017 for 20 weeks. We will invite you to attend a small group of 6 to 8 teenagers. The sessions will be guided by two leaders trained to work with teenagers on the autism spectrum, teaching you some social skills for an hour and a half.
- **If you are allocated to the KONTAKT Australia group your will be asked to participate in a 60-90 minute focus group**. The questions will focus on what you think about KONTAKT Australia, what could be done to make it better, or/and what could be included (such as what topics do you prefer? or what task was hard to do?). This will be a small group of 4 to 8 teens. The length of time for the focus group will depend on how much you want to talk. You can have a copy of the questions in advance and the focus group will be audio-recorded so we can listen and analyse it later. After the interview, we will give you a written copy of the recording for you to check that it is an accurate representation of your experience.

Three separate KONTAKT sessions will be recorded. This is part of the group leaders' training to ensure that they are following the KONTAKT program. The recordings will not focus on the participants but on the leaders. The recordings will only be used to upskill the leaders and no data will be recorded from the participants.

There will be no costs for you to participate in this study and you will not be paid for participating in the study.

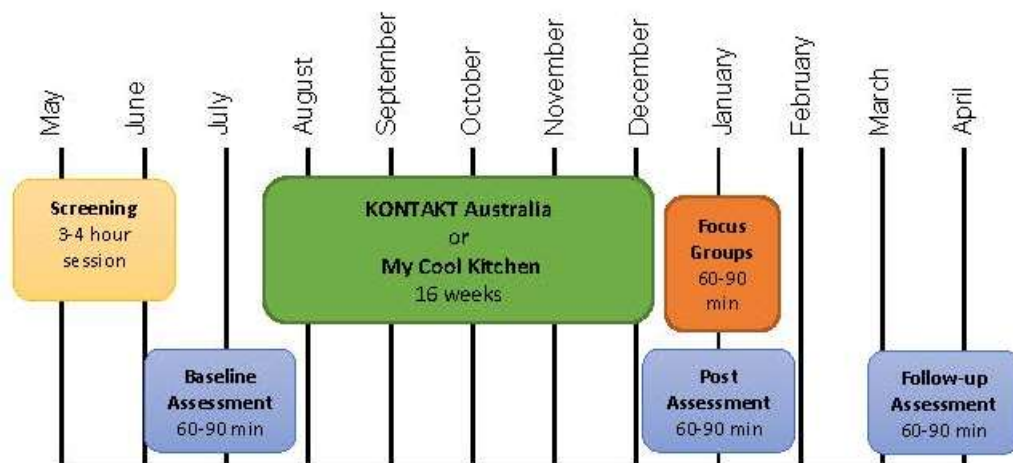
Note: during and after the completion of the study you will be able to access the services you normally receive from the Autism Association of Western Australia.





***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

The study will be delivered in this format:



**Who is doing the research?**

This project is being conducted in the Autism Association of Western Australia Sites (Shenton Park, Midland and Fremantle) by Associate Professor Sonya Girdler (principle investigator), Prof Sven Bölte, Dr. Marita Falkmer and Bahareh Afsharnejad, who is a PhD candidate. This project is funded by the Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

**Are there any benefits' to doing the evaluation?**

There are a few benefits to participating in this program. First, we hope that the results of this research will allow us to develop a social skills group training that would be beneficial to Australian teenagers on the Autism spectrum. Second, we hope that by participating in either group you will improve and build new skills.

**Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

You may feel tired during the assessments, if this happens you can complete over a number of sessions. This is not a problem.

**If you are allocated to the "My Cool Kitchen" cooking class you will be working with kitchen tools. You are going to be working with some sharp objects in the kitchen, also an**



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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oven which has a hot surface. We will be using all safety precautions such as oven gloves and we will teach you how to cut safely.

We will also make sure we know if you have any food allergies. We will do this by asking your parents to complete a history form which will let us know about all your food allergies. We have been careful to make sure that participating in either group does not cause you any distress or harm.

**If you are allocated to the KONTAKT Australia group** you may find the groups difficult. This is because you will be learning new skills. If you are finding this really challenging we can refer you to a psychologist at the Autism Association of Western Australia to talk about how you are feeling.

If you find either group too difficult, you can stop attending at any time, without penalties or providing any stated reasons. If you feel anxious about any of the questions you do not need to answer them. If the questions or the groups cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code on all of your questionnaires. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We do not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The intervention results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

At the end of the research (in about 18 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

#### **Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give





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### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University, or the services you receive from the Autism Association of Western Australia. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part this study, we will ask you to sign a consent form just before the training starts. Signing the consent form tells us that you understand what you have read and agree to be in the intervention. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

#### **Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

		
Bahareh Afsharnejad  Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer  Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler  Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172





***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

**Appendix P3: FAMILY/CARER INFORMATION STATEMENT**

**PILOT STUDY**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The development and Evaluation of a social Skills Group Training for Australian Teenagers on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	2
<b>Version Date:</b>	09/05/2017

**What is the project about?**

Many teenagers find social situations difficult, and this is often especially true for teenagers with Autism. Learning what social skills are and having an opportunity to practice these is likely to help young people.

KONTAKT is a social skills group which originated in Sweden and Germany. These groups involve learning social rules, and social skills such as initiating and maintaining conversations, understanding facial expressions and body language, problem-solving everyday situations and developing effective coping strategies. These groups have been found to be effective overseas and we believe an Australian version of KONTAKT may help Australian teenagers.

We need your help to evaluate these groups. You and your child are being asked to take part in the first stages of the program. In this stage, you and your child will be asked to complete a few questions to determine if you are able to participate, if your child is eligible, they will be asked to take part in either the KONTAKT social skills group or the Cool Kitchen cooking group.

**What am I being asked to do?**

Your teenage child will be allocated to one of two groups, either a Cooking Group of the KONTAKT social skills group.



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

1. **Cool Kitchen Cooking Group:** This is a cooking class that will be held weekly at one of the Autism Association of Western Australia Sites, during school term 3 and term 4, 2017 for 20 weeks. Groups will be made up of between 6 to 8 teens. The class will be guided by leaders trained to work with teenagers on the Autism spectrum for an hour and a half.
  2. **KONTAKT Australia:** This is a social skills group training class that will occur weekly at one of the Autism Association of Western Australia Sites, during term 3 and term 4, 2017 for 20 weeks. Groups will be made up of 6 to 8 teens. The sessions will be guided by two leaders trained to work with teenagers on the autism spectrum, teaching social skills to participants for an hour and a half. If your child is allocated to this group we will also invite you attend three, one and a half hour parent sessions.
- ***Participating in an evaluation (25-30 minutes),*** to get to know your child better, we are going to ask you some questions about how you feel about your child's life, how he/she recognises emotions, and how he/she communicates and interact with others and the costs of services delivered. After 16 weeks we will invite you to participate in the same evaluation to examine how your child's skills have changed. We will remind you of this second evaluation in advance. You can fill some of the questionnaires online, and the others in paper copy. If you want we can give you all the questionnaires in paper copy (more details are on page 4). If you fill it out online you can save your progress and come back to it later.
  - ***If your child is allocated to the KONTAKT group we will ask you to participate in a 60-90 minute focus group,*** the questions will focus on what you think about KONTAKT Australia, what could be done to make it better, and/or what could be included (such as what topics do you prefer? or what task was hard to do?). This will be a group of 8 to 16 parents. The length of time for the focus group will depend on how much you want to talk. You can have a copy of the questions in advance and the focus group will be audio-recorded so we can listen and analyse it later. After the interview, we will give you a written copy of the recording for you to check that it is an accurate representation of your experience.

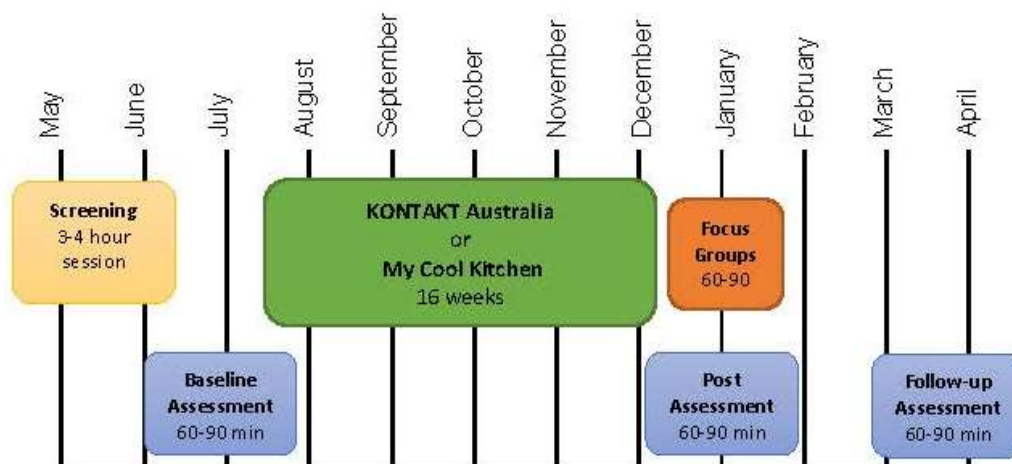
Note: during and after the completion of the study your child will be able to access the services he/she normally receives from the Autism Association of Western Australia.

Three separate KONTAKT sessions will be recorded. This is part of the group leaders' training to ensure that they are following the KONTAKT program. The recordings will not focus on the participants but on the leaders. The recordings will only be used to upskill the leaders and no data will be recorded from the participants.



***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

The study will be delivered in this format:



There will be no costs for you to participate in this study and you will not be paid for participating in the study.

**Who is doing the research?**

This project is being conducted in the Autism Association of Western Australia Sites (Shenton Park, Midland and Fremantle) by Associate Professor Sonya Girdler (principle investigator), Prof Sven Bölte, Dr. Marita Falkmer and Bahareh Afsharnejad, who is a PhD candidate. This project is funded by the Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

**Are there any benefits' to doing the evaluation?**

There are a few benefits to participating in this program. First, we hope that the results of this research will allow us to develop a social skills group training that would be beneficial to Australian teenagers on the Autism spectrum. Second, we hope that by participating in either group your child will improve and build new skills.

**Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

You may feel tired during the assessments, if this happens you can complete over a number of sessions. This is not a problem.





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### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

**If your child is allocated to the “My Cool Kitchen”** cooking class they will be working with kitchen tools. They are going to be working with some sharp objects in the kitchen, also an oven which has a hot surface. We will be using all safety precautions such as oven gloves and we will teach your child how to cut safely.

We will also make sure we know if your child has any food allergies. We will do this by asking you to complete a history form which will let us know about all of your child's food allergies. We have been careful to make sure that participating in either group does not cause you any distress or harm.

**If your child is allocated the KONTAKT Australia** group, your child may find the groups difficult. This is because they will be learning new skills. If your child is finding this really challenging we can refer them to a psychologist at the Autism Association of Western Australia to talk about how they are feeling.

If your child finds either group too difficult, they can stop attending at any time, without penalties or providing any stated reasons. If you feel anxious about any of the questions you do not need to answer them. If the questions or the groups cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We do not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The intervention results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

At the end of the research (in about 18 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

#### **Do I have to take part in the research project?**



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University or the services you receive from the Autism Association of Western Australia. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in KONTAKT Australia, we will ask you to sign a consent form just before the training starts. Signing the consent form tells us that you understand what you have read and agree to be in the intervention. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

#### **Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

Bahareh Afsharnejad	Dr Marita Falkmer	Assoc. Prof. Sonya Girdler
Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a>	Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a>
	Phone: (08) 9266 3605	Phone: (08) 9266 3630 0466 546 172





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*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix T1: ADOLESCENT WITH ASD AND FAMILY/CARER  
INFORMATION STATEMENT  
RCT STUDY SCREENING**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The development and Evaluation of a social Skills Group Training for Australian Teenagers on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

Many teenagers find social situations difficult, and this is often especially true for teenagers with Autism. Learning what social skills are and having an opportunity to practice these is likely to help young people like yourself.

KONTAKT is a social skills group which originated in Sweden and Germany. These groups involve learning social rules, and social skills such as initiating and maintaining conversations, understanding facial expressions and body language, problem-solving everyday situations and developing effective coping strategies. These groups have been found to be effective overseas and we believe an Australian version of KONTAKT may help Australian teenagers.

We need your help to evaluate these groups. You are being asked to take part in the first stages of the program. In this stage, you will be asked to complete a few questions to determine if you are able to participate, if you are eligible, you will be asked to take part in either the KONTAKT social skills group or the Cool Kitchen cooking group.

**What am I being asked to do?**

To help us evaluate the KONTAKT Australia program, we would like you take part in this research. This will help us improve social skills group training interventions in the future. The evaluation will include approximately 111 teenagers on the Autism Spectrum and their families/carers and the therapist delivering the program.



### **The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum**

Note: during and after the completion of the study you will be able to access the services you normally receive from the Autism Association of Western Australia.

There will be no costs for you to participate in this screening and you will not be paid for participating in the screening.

#### **Who is doing the research?**

This project is being conducted in the Autism Association of Western Australia Sites (Shenton Park, Midland and Fremantle) by Associate Professor Sonya Girdler (principle investigator), Prof Sven Bölte, Dr. Marita Falkmer and Bahareh Afsharnejad, who is a PhD candidate. This project is funded by the Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

There are a few benefits to participating in this program. First, we hope that the results of this research will allow us to develop a social skills group training that would be beneficial to Australian adolescents on the autism spectrum. Second, we hope that by participating in either group you/your child will improve and build new skills.

#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

Apart from giving up your time or the stress of participation, there are no foreseeable risks from this research project. We have been careful to make sure that the questions does not cause you any distress. If the questions cause any concerns or upset you, or any unforeseen risks arise when participating in it, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We do not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.





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***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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The intervention results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

**Will you tell me the results of the research?**

At the end of the research (in about 18 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

**Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University. If you chose to leave the study we will use any data we have collected unless you tell us not to.

**What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in KONTAKT Australia, we will ask you to sign a consent form just before the training starts. Signing the consent form tells us that you understand what you have read and agree to be in the intervention. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

**Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).





*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

Bahareh Afsharnejad  Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer  Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler  Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172



*The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum*

**Appendix T2: ADOLESCENT WITH ASD INFORMATION STATEMENT**  
**RCT STUDY**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The development and Evaluation of a social Skills Group Training for Australian Teenagers on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

Many teenagers find social situations difficult, and this is often especially true for teenagers with Autism. Learning what social skills are and having an opportunity to practice these is likely to help young people.

KONTAKT is a social skills group which originated in Sweden and Germany. These groups involve learning social rules, and social skills such as initiating and maintaining conversations, understanding facial expressions and body language, problem-solving everyday situations and developing effective coping strategies. These groups have been found to be effective overseas and we believe an Australian version of KONTAKT may help Australian teenagers.

We need your help to evaluate these groups. You are being asked to take part in the second stages of the program. In this stage, you will be asked to complete a few questions and then you will be randomly assign to take part in either the KONTAKT social skills group or the Cool Kitchen cooking group.

**What am I being asked to do?**

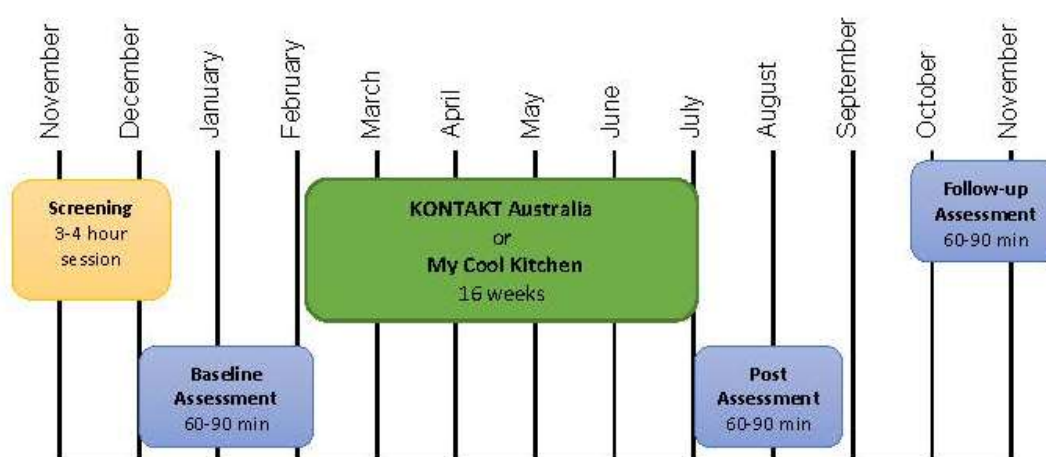
To help us evaluate the KONTAKT Australia program, we would like to know what you think. This will help us improve social skills group trainings in the future. The evaluation will include approximately 160 teenagers on the Autism Spectrum and their families/carers and the therapists delivering the program. Participation will involve you:



***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

- **Participating in an evaluation (60-90 minutes)**, to get to know you better, we are going to ask you some questions about how you feel about your life, how you recognise emotions, and how you communicate and interact with others. You will be asked the same questions three times. Time 1: prior to attending KONTAKT Australia or My Cool Kitchen; Time 2: immediately after the last session of KONTAKT Australia or My Cool Kitchen; Time 3: a 16 weeks follow up after time 2. We will remind you of the second and third evaluation in advance. The evaluation will be delivered in two formats: filling out a few questionnaires, and watching videos and answering some questions. The questionnaires will be provided to you in paper copy (more details are on page 4).
- **Participating in one of two programs:**
  1. **Cool Kitchen Cooking Group:** This is a cooking class that will be held weekly at one of the Autism Association of Western Australia Sites, over two school terms for 20 weeks. We will invite you to attend a small group of 6 to 8 teens. The class will be guided by leaders trained to work with teenagers on the Autism spectrum for an hour and a half.
  2. **KONTAKT Australia:** This is a social skills group training class that will occur weekly at one of the Autism Association of Western Australia Sites, over two school terms for 20 weeks. We will invite you to attend a small group of 6 to 8 teens. The sessions will be guided by two leaders trained to work with teenagers on the autism spectrum, teaching you some social skills for an hour and a half.

Below is an example of the format of this study, although the months will depend on the times you start:







### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

Note: during and after the completion of the study you will be able to access the services you normally receive from the Autism Association of Western Australia.

There will be no costs for you to participate in this study and you will not be paid for participating in the study.

#### **Who is doing the research?**

This project is being conducted in the Autism Association of Western Australia Sites (Shenton Park, Midland and Fremantle) by Associate Professor Sonya Girdler (principle investigator), Prof Sven Bölte, Dr. Marita Falkmer and Bahareh Afsharnejad, who is a PhD candidate. This project is funded by the Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

There are a few benefits to participating in this program. First, we hope that the results of this research will allow us to develop a social skills group training that would be beneficial to Australian teenagers on the Autism spectrum. Second, we hope that by participating in either group you will improve and build new skills.

#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

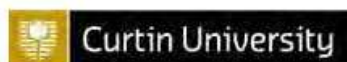
You may feel tired during the assessments, if this happens you can complete over a number of sessions. This is not a problem.

**If you are allocation to the "My Cool Kitchen"** cooking class you will be working with kitchen tools. You are going to be working with some sharp objects in the kitchen, also an oven which has a hot surface. We will be using all safety precautions such as oven gloves and we will teach you how to cut safely.

We will also make sure we know if you have any food allergies. We will do this by asking your parents to complete a history form which will let us know about all your food allergies. We have been careful to make sure that participating in either group does not cause you any distress or harm.

**If you are allocated to the KONTAKT Australia** group you may find the groups difficult. This is because you will be learning new skills. If are finding this really challenging we can refer you to a psychologist at the Autism Association of Western Australia to talk about how you are feeling.

If you find either group too difficult, you can stop attending at any time, without penalties or providing any stated reasons. If you feel anxious about any of the questions you do not need to answer them. If the questions or the groups cause any concerns or upset you, or



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

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any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the data. We do not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The intervention results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

At the end of the research (in about 18 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

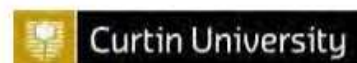
#### **Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afshamejad or her supervisors, Associate Professor Sonya Girdler or Dr Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in KONTAKT Australia, we will ask you to sign a consent form just before the training starts. Signing the consent form tells us that you understand what you have read and agree to be in the intervention. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for



***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

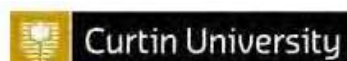
your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

**Ethics Clearance**

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2017-0245). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

		
Bahareh Afsharnejad Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172





***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

**Appendix T3: FAMILY/CARER INFORMATION STATEMENT**

**RCT STUDY**

<b>HREC Project Number:</b>	HRE2017-0245
<b>Project Title:</b>	The development and Evaluation of a social Skills Group Training for Australian Teenagers on the Autism Spectrum
<b>Principal Investigator:</b>	Associate Professor Sonya Girdler
<b>Student Investigator:</b>	Bahareh Afsharnejad
<b>Version Number:</b>	1
<b>Version Date:</b>	27/02/2017

**What is the project about?**

Many teenagers find social situations difficult, and this is often especially true for teenagers with Autism. Learning what social skills are and having an opportunity to practice these is likely to help young people like yourself.

KONTAKT is a social skills group which originated in Sweden and Germany. These groups involve learning social rules, and social skills such as initiating and maintaining conversations, understanding facial expressions and body language, problem-solving everyday situations and developing effective coping strategies. These groups have been found to be effective overseas and we believe an Australian version of KONTAKT may help Australian teenagers.

We need your help to evaluate these groups. You are being asked to take part in the second stages of the program. In this stage, you will be asked to complete a few questions and then your child will be randomly assigned to take part in either the KONTAKT social skills group or the Cool Kitchen cooking group.

**What am I being asked to do?**

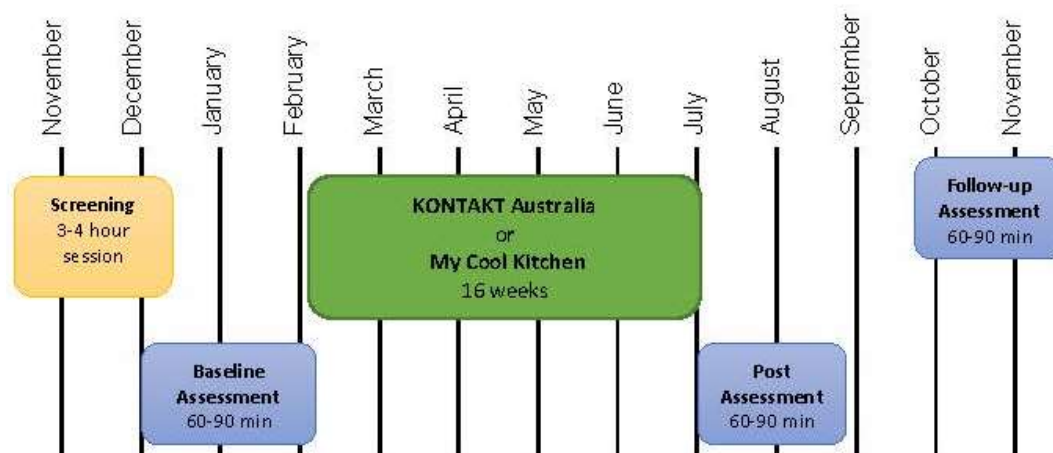
To help us evaluate the KONTAKT Australia program, we would like to know what you think. This will help us improve social skills group trainings in the future. The evaluation will include approximately 160 teenagers on the Autism Spectrum and their families/carers and the therapists delivering the program. Participation will involve you:



### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

- **Participating in an evaluation (25-30 minutes)**, to get to know your child better, these questions will focus on your perception on how your child feels about his/her life, how he/she communicates with and around others. These questionnaires will be in a set of 3. Time 1: prior to attending KONTAKT Australia or My Cool Kitchen; Time 2: immediately after the last session of KONTAKT Australia or My Cool Kitchen; Time 3: a 16 weeks follow up after time 2. This would be to examine how your child's skill have changed over time. We will remind you of the time to do the other series of the questionnaires in advance. You can fill some of the questionnaires online, and the others in paper copy. If you want we can give you all the questionnaires in paper copy (more details are on page 4). If you fill it out online you can save your progress.
- **Participating in parent sessions (ONLY for participants in the KONTAKT Australia group)**, the social skills group training will occur weekly at Autism Association of Western Australia Sites, over two school terms. We will invite you to attend three, one and a half hour parent sessions.

Below is an example of how this study will be delivered, although the exact months will depend on the time your child starts:

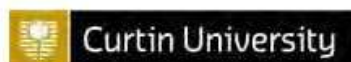


Note: during and after the completion of the study your child will be able to access the services he/she normally receives from the Autism Association of Western Australia.

There will be no costs for you or your child to participate in this study and you will not be paid for participating in the study.

### **Who is doing the research?**





### **The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum**

This project is being conducted in the Autism Association of Western Australia Sites (Shenton Park, Midland and Fremantle) by Associate Professor Sonya Girdler (principle investigator), Prof Sven Bölte, Dr. Marita Falkmer and Bahareh Afsharnejad, who is a PhD candidate. This project is funded by the Stan Perron Charitable Trust. Bahareh will be using the results of this research project to obtain a Doctor of Philosophy at Curtin University.

#### **Are there any benefits' to doing the evaluation?**

There are a few benefits to participating in this program. First, we hope that the results of this research will allow us to develop a social skills group training that would be beneficial to Australian teenagers on the Autism spectrum. Second, we hope that by participating in either group your child will improve and build new skills.

#### **Are there any risks, side-effects, discomforts or inconveniences from being in the evaluation?**

You may feel tired during the assessments, if this happens you can complete over a number of sessions. This is not a problem.

**If you are allocation to the "My Cool Kitchen"** cooking class you will be working with kitchen tools. You are going to be working with some sharp objects in the kitchen, also an oven which has a hot surface. We will be using all safety precautions such as oven gloves and we will teach you how to cut safely.

We will also make sure we know if you have any food allergies. We will do this by asking your parents to complete a history form which will let us know about all your food allergies. We have been careful to make sure that participating in either group does not cause you any distress or harm.

**If you are allocated to the KONTAKT Australia** group you may find the groups difficult. This is because you will be learning new skills. If are finding this really challenging we can refer you to a psychologist at the Autism Association of Western Australia to talk about how you are feeling.

If you find either groups too difficult, you can stop attending at any time, without penalties or providing any stated reasons. If you feel anxious about any of the questions you do not need to answer them. If the questions or the groups cause any concerns or upset you, or any unforeseen risks arise when participating in the focus group, we can refer you to a counselling service for support.

#### **Who will have access to my information?**

All the data collected for this study will be recorded without names or any other identifying information. All data collected will be coded. This means that we will replace your name with a code. Only the research team will know what code is yours. Any information we collect will be treated as confidential and only the research team will have access to the



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### ***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

data. We do not let others know the information unless you give us permission or if the law says we need to.

All data collected in this study will be stored confidentially on a password protected computer. Any hard copy information, will be stored in a locked cabinet at Curtin University. All data will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed. You have the right to access your information/data and request correction of your information in accordance with relevant privacy laws.

The intervention results may be presented at conferences or published in journals. You will not be identified in any results that are published or presented.

#### **Will you tell me the results of the research?**

At the end of the research (in about 18 months) we will contact you and provide you with a summary of the results. Results will not be individual but based on all the information we collect and review as part of the research.

#### **Do I have to take part in the research project?**

Taking part in this study is entirely voluntary. It is yours and your child's choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project at any time. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, there is no penalty and it will not affect your relationship with the project team and Curtin University or the services you will receive from the Autism Association of Western Australia. If you chose to leave the study we will use any data we have collected unless you tell us not to.

#### **What happens next and who can I contact about the evaluation?**

If you have any questions about this research or are interested in participating, please do not hesitate to contact Bahareh Afsharnejad or her supervisors, Associate Professor Sonya Girdler or Dr Marita Falkmer. Our contact details are at the end of this document.

If you decide to take part in KONTAKT Australia, we will ask you to sign a consent form just before the training starts. Signing the consent form tells us that you understand what you have read and agree to be in the intervention. Please take your time and ask any questions you have before you decide what to do. You can keep this information sheet for your records, and if you would like a copy of your signed consent form just email Bahareh and ask for it.

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***The Development and Evaluation of a Social Skills Group Training for Australian Adolescents on the Autism Spectrum***

or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).

Bahareh Afsharnejad Email: <a href="mailto:Bahareh.afsharnejad@postgrad.curtin.edu.au">Bahareh.afsharnejad@postgrad.curtin.edu.au</a>	Dr Marita Falkmer Email: <a href="mailto:Marita.Falkmer@curtin.edu.au">Marita.Falkmer@curtin.edu.au</a> Phone: (08) 9266 3605	Assoc. Prof. Sonya Girdler Email: <a href="mailto:Sonya.girdler@curtin.edu.au">Sonya.girdler@curtin.edu.au</a> Phone: (08) 9266 3630 0466 546 172

## **Appendix 19 - Flyers**





Curtin University

## Making KONTAKT: A 16 Week Social Skills Program for Teenagers

The Autism Association and Curtin University are very excited to announce our KONTAKT social skills program for teenagers on the Autism Spectrum.

We are now seeking Expressions of Interests from Teenagers 12 and 17 years to participate in a 16 week afterschool social skills program.

Many teenagers find social situations difficult, and this is often especially true for teenagers on the Autism Spectrum. Learning what social skills are and having an opportunity to practice these is likely to help young people with Autism. We need your help to evaluate the effectiveness of a new social skills training group for teenagers with Autism who are attending Mainstream School.

**Who?** Teenagers (13-17 years old) on the Autism spectrum (who are attending a mainstream school) and their parents/carers

**When:** 16 weeks on Wednesdays 4-5:30pm across Term 3 and Term 4, 2017.

**Where:** Groups will run in Shenton Park and Midland

### What is involved?

#### For teenagers with Autism

Participation in:

- A KONTAKT social skills training group or the Superchef Group, for 16 weeks. (There will be 8 teenagers in each 16 week group)
- 3 evaluations (up to 90 minutes)
- A 90 minute focus group

#### For parents of teenagers with Autism

- Supporting your child to attend either the KONTAKT or My Cool Kitchen groups for 16 weeks across two school terms.
- Participating in our research: Participating in 3 evaluations (each 30 minutes) and a 90 minute focus group.

**Costs:** there are no costs for these groups

### Interested?

Complete the expression of interest form attached or online at [www.autism.org.au/our-services/school-aged/social-skills-groups/kontakt-expression-interest](http://www.autism.org.au/our-services/school-aged/social-skills-groups/kontakt-expression-interest). Please complete these by the 24th of May 2017.

For more information contact: Bahareh Afshamejad  
[bahareh.afshamejad@postgrad.curtin.edu](mailto:bahareh.afshamejad@postgrad.curtin.edu)

### What are the benefits of this study?

1. The results of this study will allow us to develop a social skills group training program that helps Australian teens on the Autism Spectrum.
2. Teenagers will have fun and make new friendships

### What are the risks?

Apart from giving up your time and working with the kitchen tools there are no foreseeable risks associated with participating in this study.



[www.autism.org.au](http://www.autism.org.au)



## Social Skills Group Training: A 16 Week Program for Teenagers

The Autism Association and Curtin University are very excited to announce our social skills program for teenagers on the Autism Spectrum.

We are now seeking Expressions of Interests from Teenagers 12 and 17 years to participate in a 16 week after school social skills program.

Many teenagers find social situations difficult, and this is often especially true for teenagers on the Autism Spectrum. Learning what social skills are and having an opportunity to practice these is likely to help young people with Autism. We need your help to evaluate the effectiveness of a new social skills training group for teenagers with Autism who are attending Mainstream School.

**Who?** Teenagers (12-17 years old) on the Autism spectrum and their parents/carers.

**When:** Throughout 2018 we will be running 16 week programs on weekdays outside of school hours.

**Where:** Various locations in the Perth Metro area.

### What is involved?

#### For teenagers with Autism

Participation in:

- an initial assessment to confirm eligibility;
- a KONTAKT social skills training group or the My Cool Kitchen group, for 16 weeks;
- 3 x evaluations (up to 90 minutes); and
- a 90 minute focus group.

#### For parents of teenagers with Autism

- Supporting your child to attend either the KONTAKT or My Cool Kitchen groups for 16 weeks across two school terms.
- Participating in our research: Participating in 3 evaluations (each 30 minutes) and a 90 minute focus group.

**Costs:** there are no costs for these groups.

### Interested?

Complete the expression of interest form online at <http://bit.ly/Kontakt-EOI>

For more information contact: Bahareh Afsharnejad  
[bahareh.afsharnejad@postgrad.curtin.edu.au](mailto:bahareh.afsharnejad@postgrad.curtin.edu.au)

### What are the benefits of this study?

1. The results of this study will allow us to develop a social skills group training program that helps Australian teens on the Autism Spectrum.
2. Teenagers will have fun and make new friendships.

### What are the risks?

Apart from giving up your time and working with the kitchen tools there are no foreseeable risks associated with participating in this study.



[www.autism.org.au](http://www.autism.org.au)

**Appendix 20 - Journal  
Copyright Transfer Statement**

The logo for Springer Nature, with "SPRINGER" in blue and "NATURE" in red.**KONTAKT© for Australian adolescents on the autism spectrum:  
protocol of a randomized control trial**

Author: Bahareh Afsharnejad et al

Publication: Trials

Publisher: Springer Nature

Date: Dec 9, 2019

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Feb 23, 2021

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Nature content yes

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Institution name Curtin University

Expected presentation  
date Mar 2021

Order reference  
number JADD-D-19-00952R2

Requestor Location Ms. Bahareh Afsharnejad  
Curtin University,  
School of Allied Health, Kent street  
Bentley, WA 6102  
Australia  
Attn: Curtin University

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## **Appendix 21 - Permission to Use Measures**

**RE: Circumplex scales of interpersonal efficacy**

Locke, Kenneth (klocke@uidaho.edu) <klocke@uidaho.edu>

Tue 20/12/2016 11:28 PM

To: bahareh Afsharnejad <b.afsharnejad@outlook.com>

Dear Bahareh,

Thank you for your interest in the CSIE. I would be happy for you to use it in your project. If you encountered the CSIE via my article on "[self-perceptions, parent-perceptions, and meta-perceptions of the interpersonal efficacy of adolescents with autism spectrum disorder](#)", then I should mention that in that study I used a brief 16-item version of the CSIE. Information about the complete 32-item version of the CSIE is posted at <http://www.webpages.uidaho.edu/klocke/csie.htm>. Let me know if you have any questions, and best wishes with your project,

Ken

Kenneth Locke

Professor, Department of Psychology and Communication Studies

University of Idaho

Moscow ID 83844-3043



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(trading as Social Skills Training Institute)  
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28 April 2017

Bahareh Afsharnejad  
PhD Student  
School of Occupational Therapy and Social Work  
Curtin University

**BY EMAIL**

Dear Bahareh,

**Use of ERSSQ in PhD Research**

We refer to your email to Associate Professor Kate Sofronoff enquiring as to the ERSSQ tool in your PhD research into social skills for adolescents on the autism spectrum. Social Skills Training Pty Ltd is a wholly-owned of Autism CRC Ltd and is the exclusive licensee of the Secret Agent Society social skills program, which incorporates the ERSSQ.

We are happy for you to make use of the ERSSQ tool in your studies on the following basis.

- (a) The tool is to be used in your PhD studies on social skills for adolescents on the autism spectrum, and not used or distributed for any other purpose.
- (b) The tool would be made available to you for the purpose described in (a) free of any fees.
- (c) You are not permitted to amend or vary the tool in any way, or derive another tool from it, without the prior written permission of Social Skills Training Pty Ltd.
- (d) Any amendments, variations and derivatives would be the property of Social Skills Training Pty Ltd.
- (e) All physical and electronic forms of the measure used in your studies, as well as any publications arising from those studies, including the PhD Thesis, should include the following acknowledgement:  
*"The ERSSQ is part of the Secret Agent Society social skills program.  
 Permission for use of the ERSSQ was granted by the Authors and the Publisher.  
 Authors – Renae Beaumont & Kate Sofronoff, 2008.  
 Publisher – Social Skills Training Pty Ltd ([www.sst-institute.net](http://www.sst-institute.net))"*
- (f) You acknowledge that the Authors and the Publisher make no representations as to the appropriateness of the measure for your proposed use.

We would appreciate your acknowledgment of the above conditions by signing where indicated below and returning a copy by email to [sas@sst-institute.net](mailto:sas@sst-institute.net)



**SOLVING the MYSTERY  
of SOCIAL ENCOUNTERS®**





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[www.sst-institute.net](http://www.sst-institute.net)

- 2 -

We wish you every success in your studies.

Yours sincerely,

Andrew Davis  
Managing Director

#### Acknowledgment

I, Bahareh Afsharnejad, acknowledge and agree to the conditions outlined in this letter for the use of the ERSSQ tool, being a part of the Secret Agent Society social skills program, in my PhD studies on social skills for adolescents on the autism spectrum.

Bahareh Afsharnejad  
Signed by Bahareh Afsharnejad

29/04/2017  
Date



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## **Appendix 22 - Infographics**

# KONTAKT HAS NOW ARRIVED!



THE TALES OF A SOCIAL  
GROUP PROGRAM FOR  
AUTISTIC TEENS,  
TRAVELLINGS FROM  
GERMANY TO AUSTRALIA



KONTAKT decreases  
autism symptomology  
and improves everyday  
functioning!



2007  
GERMANY



KONTAKT increases  
self confidence and  
independence in  
everyday life!

KONTAKT  
is born!

KONTAKT  
improves  
communication  
skills!



2011  
SWEDEN

KONTAKT is  
now evidence  
based!



Swedish autistic  
youth liked  
KONTAKT!

2017  
AUSTRALIA

Australia needs  
social skills group  
programs for  
autistic youth!



KONTAKT  
is now  
ready to be  
tested in  
Australia



KONTAKT fits the  
Australian  
culture!



STAN PERRON  
CHARITABLE FOUNDATION



Bahareh.Afsharnejad@curtin.edu.au

# What Did You Think About KONTAKT?

Progress towards personally meaningful social goals

**High  
Responder**  
(n=23)



**Low  
Responder**  
(n=12)

## SATISFACTION

Teens **96%**  
Parent **91%**



Teens **92%**  
Parent **100%**

## LEARNED SOCIAL SKILLS

Teens **60%**  
Parent **82%**

**Communicating**



Teens **25%**  
Parent **83%**

Teens **60%**  
Parent **78%**

**Empowering**



Teens **16%**  
Parent **66%**

Teens **78%**  
Parent **95%**



**Relationships**

Teens **50%**  
Parent **100%**

Teens **43%**  
Parent **69%**



**Social Awareness**

Teens **33%**  
Parent **58%**

[Bahareh.afsharnejad@curtin.edu.au](mailto:Bahareh.afsharnejad@curtin.edu.au)



STAN PERON  
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