Can training bar staff in responsible serving practices reduce alcohol-related harm?

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Abstract

A responsible service training programme aimed at reducing alcohol-related harm was implemented in a popular entertainment area over several months in 1992–93. Another popular entertainment area provided a control site. A number of evaluation measures were used: breath tests on 872 patrons from selected venues; drink driving data; risk assessments; the use of 'pseudo patrons'; and knowledge and attitude changes among trained bar staff ($n = 88$). Compared to control sites the intervention sites showed an immediate pre- to post-test reduction in patrons rated by researchers as extremely drunk and an eventual reduction from pre-test to follow-up in patrons with blood alcohol levels $> = 0.08$. There was also a small but significant increase in knowledge among bar staff. There was no significant reduction in patrons with blood alcohol levels $> = 0.15$ or in the number of drink driving offences from intervention sites during the study period. Pseudo drunk patrons were rarely refused service, identification was rarely checked and non-photographic identification was accepted on most occasions. The less than satisfactory outcome is attributed to poor implementation of the training and a lack of support among managers. The positive results from one venue, whose manager embraced the programme, served to highlight the importance of management support. It is suggested that mandatory training and routine enforcement of licensing laws are essential if the goals of responsible serving are to be met. [Lang E, Stockwell T, Rydon P, Beel A. Can training bar staff in responsible serving practices reduce alcohol-related harm? *Drug Alcohol Rev* 1998;1:39–50]

Key words: alcohol use, server training, licensed premises, evaluation.

Introduction

In recent years attempts to reduce the harm associated with the consumption of alcohol have begun to target the settings in which drinking takes place. For example, efforts have been made to encourage the managers and owners of licensed premises to adopt responsible serving practices and policies [1] and training programmes have been developed to instruct bar staff in the application of such policies [2].

In Australia the development of responsible serving initiatives were given an impetus in 1990 following publication by the National Alcohol Beverage Industries Council of *National Guidelines for the Responsible Serving of Alcohol* [3] prior to which there had been little progress towards adopting responsible serving practices and policies [4].

In 1991 the West Australian Hotels' Association developed a training programme for bar staff in the responsible sale of alcohol based on the National Guidelines. The Association sought advice from the authors of this paper on refining the training programme and evaluating its implementation, an opening which led eventually to a collaborative project involving the Hotels' Association, Cabaret Owners Association, Liquor Licensing Commission, consenting licensees, police, health professionals, and the authors [5]. Funding was provided by the West Australian Health Promotion Foundation. The City of Fremantle was chosen as the site for the training programme because it is a popular entertainment area and because of community concerns regarding alcohol-related violence and vandalism [6].

Responsibility for the delivery of the training programme was, at their request, assigned to the Hotels' Association. The Association agreed to the police Liquor and Gaming Branch delivering a component on the Liquor Act during the training sessions. The authors had sole responsibility for evaluation of the project. The main evaluation strategy was to monitor the impact of the programme on a group of 'medium' to 'high risk' Fremantle premises in comparison with control establishments in Northbridge, another popular entertainment area in the nearby City of Perth.

Previous research has suggested that training bar staff in responsible serving practices is not sufficient to change their actual serving behaviour. On the basis of overseas evidence, such training must occur in the context of there being enforcement of laws prohibiting drunkenness on licensed premises [7,8] and that management need to support their staff in adhering to these [1,9]. Because the responsible serving project reported here had the support of the hospitality industry, as well as input from the police on liquor licensing law, it might therefore be expected that a more positive outcome could be achieved than had hitherto been the case in studies both in Australia and overseas [4]. However, support from the main stakeholders for this project was confined to a voluntary training programme. Neither the Hotels' Association, Cabaret Owners Association nor the police were ready to acknowledge the need for a regulatory intervention component. Consequently we were confined to evaluating the training programme in order to clarify the efficacy of such a project in the Australian context.

Objectives

The two principal research objectives of the programme were to:

(a) determine what effects, if any, the assessment of existing policies and practices and the training programme had on management policies, responsible serving practices and profit levels of participating premises; and
(b) examine whether any benefits were conferred on the wider community in terms of reductions in traffic accidents, drink driving offences and other types of alcohol-related problems.

A further objective was to document the experiences of bar staff and managers in implementing responsible serving practices and policies with a view to learning from these for future initiatives.

Method

Training programme

The core components of the programme were:

- Laws regarding the serving of juveniles and drunken people (to be delivered by a member of the Police Liquor Squad).
- Recognizing the signs of intoxication.
- Strategies for dealing with drunken customers.
- Alcohol and its effects, including coverage of the concept of a 'standard drink'.
- Developing responsible house policies (based in part on a venue risk assessment report).

The programme was planned to run for at least 3 hours and involve one establishment at a time at the actual site. As an incentive to attend training, bar and security staff from each site were paid their regular hourly rate.

The training schedule was designed to allow the evaluation to be completed prior to the end-of-year holiday season in order to avoid seasonal increases in

drinking behaviour and police activity (road traffic campaigns). A 2-week buffer between training sessions was considered desirable in order to avoid overlap caused by the pre-, post- and 3-month follow-up design.

However, the planned timetable was never adhered to. Delays occurred because venue managers could not agree on the timetable, or for various reasons were unable to schedule a time convenient for a sufficient number of staff to attend. Other delays occurred because the Hotels' Association trainer gave priority to other training commitments, some of which involved an absence from Perth for up to 4 weeks at a time.

Training was carried out on weekdays after 7 p.m. on three occasions, between 10 a.m. and 12 noon on three occasions, and on one occasion on a Saturday morning commencing at 8 a.m. These days and times reflect the wishes of management to schedule training at times which would cause the least disruption to their business.

Members of the research team were present at four of the seven training sessions so as to monitor the duration and content of the programme and the consistency of its delivery by the three trainers used—Hotels' Association, Tourism Industry and police.

The actual duration of the training workshops was approximately 1–2 hours, not the 3 hours originally agreed upon. This was due primarily to management imposing time constraints, which necessitated reducing the actual content of the workshops. This was achieved by omitting or amending two items originally agreed: strategies for dealing with drunk customers—the existing policies were generally thought to be adequate—and the development of house policies based on the Risk Assessment report. At best the report was discussed briefly but no attempt was made to use this to develop a house policy. The remainder of the workshop programme content—licensing laws, the effects of alcohol, and signs of intoxication—were fully covered.

On two occasions a Tourism and Hospitality Industry trainer was recruited to deliver the training because of the extended absence of the 'official' training officer. On each occasion the whole programme lasted approximately 1 hour due to the unfamiliarity of the trainer, both with the training material and with what was required regarding the use of the risk assessment. As a result the only items covered in any detail were aspects of the Liquor Act

(presented by the Liquor Squad training officer) and signs of intoxication.

Evaluation design

The main research strategy was to monitor the impact of the training programme on a group of 'medium' to 'high risk' premises in comparison with an equal number of similar control establishments. The method used to determine 'risk' relied on data supplied by the Liquor Licensing Commission and the police. The formula used involved the proportion of drink driving cases contributed by that establishment (police in Western Australia routinely record the last place of drinking) divided by its annual purchases of alcohol. Only those premises with estimated annual purchases for over the bar sales in excess of $(AUS) 150 000 or with at least five customers failing a roadside breath test in the previous year were selected for the study. Of the 50 licensed premises in the Fremantle area invited to enrol in the project, only 10 consented, seven of which (two nightclubs and five hotels) were designated as 'medium to high risk' (having had at least five drink driving offenders nominating that venue in the previous 12 months) and so qualified for inclusion in the research evaluation.

Medium to high risk premises were chosen in order to test whether it was possible to reduce the level of risk by means of the interventions delivered by this project. The evaluation also sought to address the following questions.

- Did the training programme improve participants' knowledge of alcohol issues?
- Did it create more positive attitudes towards the responsible service of alcohol?
- Did it result in the development of responsible policies for the service of alcohol?
- Did it increase compliance with relevant sections of the 1988 WA Liquor Licensing Act?
- Did it reduce the proportion of customers leaving the premises with high blood alcohol levels?
- Did it reduce the extent to which customers from trained establishments were involved in drink-driving offences?

Site selection

Each of the seven control premises were selected to match one of the seven intervention sites as closely

as possible in terms of (i) risk status, (ii) licence type (hotel or nightclub) and (iii) total alcohol purchases (± 10%) for on-premise sale—in order of priority. Seventeen premises met the study's inclusion criteria though five of the first choice 'matches' refused before the final seven were arrived at. Of these seven, two were judged to be 'perfect matches', the other five failing by a small margin to meet the ± 10% criteria on total alcohol purchases, but were closely matched on the two remaining criteria.

For the purpose of piloting research procedures three 'low risk' venues in Fremantle also received the training and all assessment procedures.

Evaluation methodology

The decision to employ a broad range of evaluation measures was prompted by what we perceived to be the inadequacy of previous evaluations of server training programmes, in particular the failure to evaluate any outcomes other than increased knowledge and changes in serving practices immediately after the intervention, and the failure to attempt any longer-term follow-up evaluation.

Theoretically, the application of responsible serving practices should reduce consumption at higher levels. In turn this should result in lower blood alcohol levels, reduced drunkenness and a decrease in alcohol-related problems, such as drink driving. The evaluation measures we employed were designed to ascertain the extent to which such outcomes might have be achieved. These measures were as follows.

- Patron exit surveys.
- Changes in police indicators of drink driving, road traffic accidents and assaults in or adjacent to the premises.
- Risk assessments of individual premises.
- The use of 'drunk' and 'under-age' pseudo patrons.
- Changes in the knowledge and attitudes of bar staff concerning the responsible service of alcohol.

Research assistants and pseudo patrons were not informed of the design of the study so they would have been unaware as to whether the various venues had status in terms of intervention or control sites.

Patron exit surveys

To examine whether the project had any impact on customers' drinking behaviour two female interviewers and two male assistants conducted patron exit surveys on Friday and Saturday nights. Convenience samples of between 20 and 30 patrons from each premises were interviewed between 8 p.m. and 3 a.m. during each of the three evaluation periods.

On exiting the premises, patrons were approached by a female interviewer who offered a free breath test and invited them to take part in a university survey. Everyone approached was independently rated in terms of their visible level of drunkenness by the two male assistants prior to obtaining a breathalyser reading. A four-point scale was used to rate drunkenness: no signs; slightly drunk; moderately drunk; and extremely drunk (see Teplin & Lutz [10]). Previous research employing the same methodology had shown that the assistant ratings on this four-point scale were highly correlated ($r = 0.73$) [11]. The interview lasted approximately 10 minutes to allow any residual breath alcohol to disperse before taking a breathalyser reading. After completing an interview, the interviewer would select the next exiting patron. Patrons consenting only to the breath test were kept talking for 5 minutes prior to receiving the test, and a fresh water mouthwash was given to those patrons who had left the premises within 10 minutes of consuming their last drink.

Blood alcohol levels were obtained using the Alcotech AR1005 alcometer. This unit was chosen due to its quick recovery rate enabling sequential testing of large numbers of patrons. All units were calibrated prior to conducting the surveys.

The majority of survey questions had been developed and used in a previous study [11]. Additional questions and a method of cue card presentation were piloted on 50 patrons leaving a hotel not included in the evaluation.

Last place of drinking of drink drivers

The number of times a licensed premise was cited as the last place of drinking for drivers who failed a roadside breath-test within the evaluation period was collected for Fremantle, Northbridge and Perth as a whole. These data are routinely recorded by the police Traffic Branch and distinguish between accident and non-accident cases. "Drink driving" refers

to cases where the official breath test was 0.05 or over to allow for the fact that in mid-1992 a 12-month trial period of a 0.05 BAL was commenced prior to its official introduction. During the study period the legal BAL for fully licensed drivers in WA was 0.08.

The combined number of drink driving cases for each of the intervention and control premises was determined for the 9-month period prior to the intervention and the 3-month follow-up phase. In addition, the ratio of pre-test to follow-up data was compared in the intervention and control sites with ratios derived from equivalent periods in two previous years. This method controls for seasonal and other external factors which can be expected to have affected both sites equally over recent years, such as changes in levels of enforcement of drink driving laws.

Risk assessments

Based in part on procedures described by Mosher [12] on-site observations and interviews with licensees or managers and a senior bar attendant were undertaken prior to training and 3 months later to identify policies, practices and environmental factors which might result in drunkenness and the serving of juveniles. Interviews were based partly on the techniques of Motivational Interviewing (MI) [13]. The reasons for using MI were to reduce licensee and barstaff resistance to the programme, and also to reduce defensiveness and denial of possibly suspect practices. In the spirit of a genuinely co-operative exercise, the researchers were concerned to enquire into the difficulties facing licensees and barstaff when they attempt to introduce responsible serving practices. Interviewees were also encouraged to express their doubts and reservations about the programme so that these could be listened to and acknowledged. The elements of MI included: being non-judgemental and focusing on reasons both for and against responsible serving practices. No active efforts were made by the interviewers to persuade or argue with the subjects regarding their degree of compliance with the programme. The interview was semi-structured and, except when specific information was sought, employed open-ended questions. Other information was obtained by carrying out observations both inside and outside premises.

A checklist developed by the authors was completed after each interview and observations covering

11 key dimensions of responsible service. This was used to rate each establishment on a five-point scale ($+2$ for excellent to -2 for very poor) on the following:

- discounting of alcoholic and non-alcoholic drinks;
- availability of reduced and low-alcohol drinks;
- price differentials on low or reduced alcohol drinks;
- serve sizes of alcoholic drinks;
- responsible service information for staff;
- safe drinking information for customers;
- age checking policies;
- policies on service to drunk customers;
- policies concerning drink driving;
- availability of food; and
- diversity of entertainment.

The checklist was used to determine whether any changes in policies or practices were adopted which may have resulted from the program. Prior to its use during the project the checklist was piloted at the three premises designated for this purpose. During the actual project a separate assessment was undertaken by another researcher based on the completed interview schedules in order to test for inter-rater reliability. Overall a 66% 'perfect match' was attained and where any differences in ratings occurred the rating scores would be reassessed in the light of explanatory feedback. Where differences were found no difficulties were encountered in agreeing on a score, thus the checklist had good inter-rater reliability.

The use of pseudo patrons

Two types of pseudo patron were employed during the project, 'young pseudos' and 'pseudo drunks'.

Young pseudos

Young pseudos refer to eight female and four male youthful-looking 18-year-olds (the legal drinking age in Australia) who were assessed by the police Liquor and Gaming Squad and an experienced bar attendant as appearing to be only 16 or 17 years old.

Working in female/male pairs, young pseudo patrons would make two visits to both intervention and control sites prior to the training component, two visits in the week immediately following training and again at 3 months' follow-up.

One of the two visits was at a busy time on a Friday or Saturday night, the other at a less busy time on a weekday. They were instructed to enter alone and to order drinks only for themselves and to note whether or not they were asked their age or asked for identification (ID). In the case of the latter they were to show some form of non-photographic ID, such as a birth certificate, and to only show their photographic ID should the former be unacceptable.

Pseudo drunks

Seven final year theatre art students and seven graduate and professional actors, aged between 21 and 32, were employed for their ability to role play drunkenness, incorporating specific signs in their performances in full view of bar staff. This was done to assess the level and type of intervention by bar staff in dealing with obviously drunk customers. To achieve the level of proficiency required actors were provided with documentation on behavioural cues for drunkenness, were shown videos of actors stimulating drunkenness and received training and feedback in a university bar.

These actors rehearsed and produced a video demonstrating the various stages of drunkenness which was assessed by Liquor Squad police in order to identify performances constituting 'drunkenness' as defined by the WA Liquor Act. The video was also used as a standard to gauge performance levels and train subsequent recruits.

Each of the 14 sites in the study received two visits on a Friday and Saturday night between 8 p.m.–3 a.m. during each of the three evaluation periods—six visits in all. Choosing a location in the venue where it was least crowded the actors selected a position at the bar where they could be easily observed, thus ensuring that servers had more time to engage in intervention. The actors attempted to order three successive rounds of drinks while displaying as many of the behavioural cues indicating drunkenness as possible while interacting with the server and, where appropriate, other customers. On purchasing the third drink or being refused service by the bar staff the actors left the premises and completed a data collection form.

Changes in the knowledge and attitudes of bar staff

Following pilot testing with a number of bar staff at two premises a 16 item questionnaire was developed

and administered to bar personnel attending the training workshops immediately before the workshop and also approximately 3 months later.

Based on information received from the seven intervention sites there were 144 people available to be trained—24 licensee/managers and 120 staff, of whom 12 managers and 76 staff—only one of whom was security staff—were eventually trained (61% overall). At follow-up 25 participants had left their place of employment. Of the remaining 63 only 37 (56.9%) completed the follow-up questionnaire despite repeated follow-ups by the researchers, including a cash ($10.00) inducement for completing the questionnaire and the provision of a pre-paid return envelope. One possible reason for the poor response is a lack of commitment by managers to ensure staff received the questionnaires and/or advise them of the cash payment.

Results

Patron exit surveys

One of the seven intervention sites declined to take part in the exit survey leaving six intervention and six control sites with two nightclubs and four hotels in each group.

Logistic regression models were used to determine the ability of independent study variables to predict the outcomes of patrons being under or over a blood alcohol level (BAL) of 0.15 and 0.08;, and in terms of observer ratings of visible drunkenness. The regression models examined the significance of trends over the pre-, post- and follow-up time periods. All analyses were conducted using the EGRET statistical package.

Sample characteristics. Of the 3191 patrons approached, 2375 consented to take part in the study, a 74.4% consent rate. Of these 1564 provided a breath sample for analysis while the remaining 811 undertook a 10–15 minute interview which was followed by a breath test. Of the 811 interviews 766 had sufficient data for analysis. For those that refused, approximately one-quarter were rated 'extremely drunk' by the research assistants. No significant differences between intervention and control groups for the three assessment periods in response rates and ratings of drunkenness for refusals were found. The sample was predominantly male (71%) and under 30 years old (76%). Except for

patrons leaving control sites at pre-test being significantly older (over 30) ($\chi^2 = 23.83$; p < 0.000) than at intervention sites. There were no significant differences in age or gender across all three phases of the study.

Patron blood alcohol levels. A total of 2146 valid breath analysis readings were analysed to determine if there was any change in the proportion of very drunk patrons (using a threshold BAL of 0.15 as an indicator) and of patrons exceeding the 0.08 drink-driving limit in force at that time. Two hundred and twenty-nine breath tests were excluded from the analysis due to the early detection of unstable BAL readings generated by one alcometer.

Fig. 1 shows a fall, for both intervention and control groups, in the percentage of patrons attaining BALs of 0.15 and over, across the three test periods. Older patrons and male patrons were significantly more likely than younger patrons and female patrons to attain BALs above 0.15. Regression analysis revealed that age (being older, $p < 0.01$) and gender (being male, $p < 0.02$) were independent predictors of attaining a BAL of 0.15 or over. These independent variables were included in another regression analysis which examined the group test interaction in terms of any trend from pre- to post-test and to follow-up. The results showed the rate of decline across the three phases was greater for the intervention group but this trend was not significant ($p = 0.389$).

Fig. 2 shows a similar pattern of decline for the percentage of patrons reaching BALs of 0.08 and over in both intervention and control groups over the three test periods. A logistic regression using
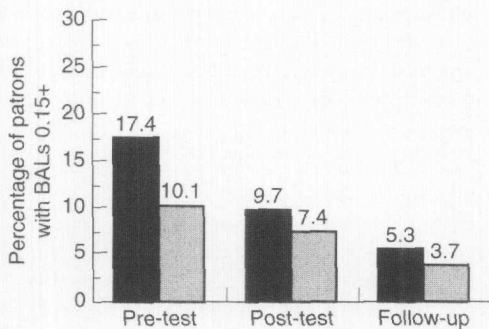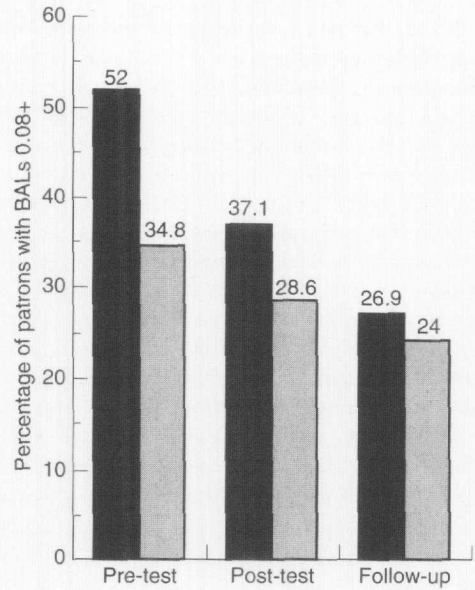

Figure 2. *Percentage of patrons attaining BALs of 0.08 and over (n = 2146).* ■, *intervention;* ▨, *control.*

age, gender, group and test as independent variables found all but age were highly significant ($p < 0.001$). Further analysis including the group test interaction revealed that the overall trend in the rate of decline from pre- to post- to follow-up differed significantly ($p < 0.030$) between intervention and control groups. While the rate of decline from pre-test to follow-up was significantly greater ($p < 0.029$) for the intervention group than for the control group this trend was not significant ($p < 0.225$) for the immediate pre- to post-test analysis.

Research assistant ratings of drunkenness. There was a four-fold reduction (11.8–2.9%) of patrons rated as extremely drunk by research assistants in the intervention group and a three-fold reduction (3.1–1%) in the control group, from pre-test to post-test. This reduction in relation to the pre-test was maintained at follow-up, although there was a slight increase in comparison to the pre-test. These differences were not significant. However, a significant group test interaction ($p < 0.017$), indicating that the intervention group showed a significantly greater decline in the percentage of patrons rated as extremely drunk in comparison to the control group, was found for the immediate pre- to post-test period.

Figure 1. *Percentage of patrons attaining BALs of 0.15 and over (n = 2146).* ■, *intervention;* ▨, *control.*

Patron observations. Exiting patrons were asked to report if they had observed (i) under-age drinkers; (ii) obviously drunk patrons; (iii) drunk patrons being served; and (iv) drunk patrons fighting. Apart from a significantly higher proportion of patrons leaving intervention sites reporting seeing drunk people fighting at pre- ($p^2 0.0001$) and post-test ($p^2 0.05$) than was case at control sites, χ^2 analyses revealed no other significant differences between intervention and control sites or across survey times. Approximately, one in five patrons reported observing under-age patrons on any site across survey times. Employing their own criteria, approximately two out of every five patrons reported observing drunk patrons, and one in four reported seeing drunk patrons being served, in both cases the observations referred to any site across survey times.

Harm indicators

The downward trend in drink driving offences from intervention premises leading up to the project was continued during the elevation period, while the figures for control premises remained relatively unchanged. However, the number of drink driving cases from both intervention and control premises were too few to permit any meaningful evaluation.

Risk assessments

Post-training assessments suggest that the project may have resulted in the uptake of policies at intervention sites which might reduce alcohol-related problems. Four managers claimed to have adopted ideas suggested in the risk assessment report, such as not serving double measures of spirits in the last half hour before closing, increasing the availability of coffee, increasing management presence and bringing a summary of the Liquor Act to staff attention. There was also evidence of a positive change in price differentials between low and regular strength beers at two intervention sites. The follow-up interviews with selected staff also revealed indications of some changes in management policies. Six of the seven managers believed the project had had a positive impact on their business and all believed it had had a positive impact on their staff.

Table 1 presents a summary of the assessment ratings. At intervention sites average ratings increased in a positive direction for four of the 11 dimensions assessed but stayed the same in the remainder. By contrast there was only one positive change at control sites compared to two negative and eight unchanged at post-test. These differences are not statistically significant.

Young pseudos

Seventy seven of a possible 78 visits were made to 13 of the 14 premises by pairs of young pseudo patrons, a total of 154 individual visits. One premise, a 'gay' club in the control group had to be omitted due to a reluctance to go there, and a visit to another control premise at 3 months' follow-up failed to yield any useful data because over-crowding in and adjacent to the venue prevented access.

In order to ensure the representativeness of the data, the intervention site matched with the 'gay' club was excluded from the analysis. In the case of the missing data from the single visit, the data obtained from the previous visit to this venue during the follow-up phase (1 ID check/1 no check) was included as a rounding measure. As a consequence 12 premises, 144 visits, from the core of the analyses.

Staff checked for ID on 50 occasions from 144 visits. Overall, more ID checks were carried out at control sites, although there was a slight increase in checking at intervention sites after training which was maintained at follow-up.

Staff at intervention sites checked ID on 20 occasions, five at pre-test, seven at post-test and eight at follow-up. At control sites 30 checks were made, 10 at pre-test, nine at post-test and 11 at follow-up.

Logistic regression was employed to determine whether or not ID checks might be predicted by the type of site or phase of the project, and to determine if there were significant interactions between the dependent and the independent variables, returned negative results.

Acceptable forms of ID. Overall, non-photographic ID was acceptable on the majority of occasions, 13 from 20 ID checks at intervention sites, 17 from 30 checks at control sites (see Table 2). In the case of intervention sites the slight increase in ID checking after training was not paralleled by an increase in photo ID being required. At control sites

Table 1. *Mean scores on policy checklist (max. possible score = + 2; min. possible score = − 2)*

Ratings	Intervention sites		Control sites	
	Pre-test	Post-test	Pre-test	Post-test
Discounting of alcoholic and non-alcoholic drinks	− 1.3	− 1.3	− 1.3	− 1.3
Availability of reduced and low alcoholic drinks	− 1.0	− 1.0	− 0.8	− 0.8
Price differentials on reduced and low alcoholic drinks	− 0.3	0.3*	− 0.3	− 0.3
Serve sizes of alcoholic drinks	0.4	0.4	0.0	0.0
Responsible service information for staff	− 0.4	0.1*	− 0.5	− 0.5
Safe drinking information for for staff	0.4	0.8*	0.7	0.5*
Safe drinking information for customers	0.4	0.8*	0.7	0.5*
Age checking policies	1.1	1.1	0.7	0.8*
Polices on service to drunk customers	− 0.5	− 0.4*	− 1.0	− 1.0
Policies concerning drinking and driving	− 0.4	− 0.3*	− 1.3	− 1.3
Availability of food	1.3	1.3	1.3	1.0*
Diversity of entertainment	0.0	0.0	0.7	0.7
Total score	− 0.7	0.9	− 1.8	− 1.8

*Indicates change of score.

there was an increase in photo IDs being required from pre-test (2) to post-test (7) (Table 2). These differences are not significant.

The point to note is that both ID checking and a requirement for photographic ID remained markedly low throughout the project at both intervention and control sites (see Lang *et al.* [14]).

Drunk pseudos

A total of 78 visits were made to the intervention and control sites over the study period. Each visit involved two drunk pseudo patrons (actors).

The level of performance of the actors were rated as meeting the criteria of moderately drunk (31%), obviously drunk (50%) or almost incapacitated (19%) with reference to the training video. The average number of behavioural signs of drunkenness exhibited by actors was 15 cues for each performance with a minimum number of 11 cues being displayed. Thus there were numerous opportunities for refusal of service on each of the 78 visits given that there were two actors, who ordered drinks on at least three separate occasions and who were often served by more than one bar staff.

Bar staff refusal of service to the actors was rare. No differences between intervention and control

Table 2. *Number and type of ID checks*

	ID checked		Photo ID req.	
	Y	N	Y	N
Intervention sites				
Pre-test	5	19	3	2
Post-test	7	17	1	6
Follow-up	8	16	3	5
Sub total	20	52	7	13
Control sites				
Pre-test	10	14	2	8
Post-test	9	15	7	2
Follow-up	11	13	4	7
Sub total	30	42	13	17
Grand total	50	94	20	30

sites were found for the pre- and post-test phases. At pre- test, servers refused service on one of the 11 visits to the intervention sites and on one of 14 visits to control sites. At post-test, servers refused service on one of the 13 visits to the intervention sites and on one of the 12 visits to control sites. At follow-up, however, servers at the intervention sites refused service on three occasions during 14 visits in comparison to only once of 14 visits to control sites. This increase in refusals for the intervention group at follow-up was due solely to interventions by staff at one of the seven intervention sites. Due to the low level of intervention no further analyses were undertaken.

The opportunities for refusal of service on each of the 78 visits suggest an even lower intervention rate, given that there were two actors who ordered drinks on at least three separate occasions and who were often served by more than one bar person. In fact, the only other form of intervention (i.e. other responsible service strategies such as offering food and low or non-alcoholic drinks) were two instances of threatened termination of service. Regardless of these warnings further full-strength beer was served (see Rydon *et al.*, [15]).

Training

There was a statistically significant ($p > 0.05$) increase in knowledge of laws regarding serving obviously drunk customers, which was maintained at follow-up. Overall, however, there were only minor increases in knowledge, most of which was not retained at follow-up.

Discussion

The various evaluation measures used in this study identified only three significant outcomes. First, there was a significantly greater drop in the numbers of patrons with BALs $> = 0.08$ leaving intervention compared to control sites ($p < 0.03$). Secondly, research assistant ratings of extreme patron drunkenness showed a significantly greater decline in the intervention group from pre- to post-test in comparison to the control group. Finally, there was a small but significant increase in knowledge of one aspect of the Liquor Act among bar staff at the intervention sites. However, because no consistent trend was found across the range of evaluation measures, we employed, these results are even

weaker than what we anticipated might be achieved. These weaker than expected results may have been due in part to the fact that the delivery of the training programme was not that agreed to during the planning phase.

In the case of the first two significant results it cannot be claimed with certainty, however, that this was due to the training. Factors external to the programme, such as changing patron demographics, health promotion messages and the continuing economic recession, may all have played some part. There is also a possibility that the evaluation methodology may have influenced the first two outcome measures. For example, in the case of patron surveys the researchers were highly visible for several hours on each occasion which may have influenced the behaviour of staff and/or patrons, particularly on the second and third visits. Checks with police found there were no major changes in policing levels or practices during most of the intervention. However, increased police breath testing activity during December and January may have had some impact on the evaluation, but it is not possible to determine to what extent.

It is worth noting that a possible explanation for the poorer than expected results from the use of pseudo patrons might have been due to untrained staff being on duty on the study nights. However, whether or not this was the case is not known— except in the case of nightclubs where all but a handful of staff were trained.

Why did the programme achieve at best a handful of weak and patchy outcomes? After all, it was a programme sponsored and promoted by the hospitality industry which encouraged participation among the various licensees and managers. Despite the co-operation of peak bodies only a handful of venues eventually agreed to participate, and only about two-thirds of the available bar staff took advantage of this opportunity, despite a financial incentive, to attend. As a consequence, efficient co-ordination and implementation of the training programme proved problematic. Delivery of training was inconsistent and failed to cover all of the agreed curricula. Two of the most important components— dealing with intoxication and developing responsible policies—were either ignored or, at best, summarily dealt with.

While all parties involved had consented to take part it was evident during the evaluation that support for the project was not strong. Managers

scheduled training at inconvenient times and some made it quite clear that profit came first. For example, during the training researchers observed one manager tell staff their job was not to act as health promotion advisers but to meet the needs of customers. Another manager warned staff against spending too much time on checking for under age. In the case of bar staff a considerable number revealed ambivalent attitudes towards the concept of responsible service, claiming things such as lack of management support, personal objections and fear of customer hostility, which was frequently cited as a factor for not employing responsible practices [5].

There was, however, a notable exception. One manager, who was newly appointed and very keen to co-operate, voluntarily adopted several new house policies suggested by the risk assessment. These included not serving double measures in the half hour before closing, and emphasizing to staff the importance of not serving patrons who they believed to be intoxicated. The staff responded with enthusiasm, so much so that they had to be advised to take it easy as they were driving some customers away. This venue evidenced a large decrease in high BALs and research assistant rating of extremely drunk patrons exiting immediately after training, and it was the only intervention site at which the pseudo-drunks were refused service at follow-up. This one positive outcome demonstrates the importance of management support as one prerequisite to the adoption of responsible practices. However, the literature suggests that broad-based voluntary management support cannot be as easily achieved as in this single case. Rather, it may depend on mandatory training for licensees and managers in responsible policies and practices, or, as is more likely, the adoption of responsible practices is dependent on effective liquor licensing enforcement.

The potential for reducing alcohol-related violence and other problems in Australia through enforcement of licensing laws has been recognized by the National Committee on Violence [16] and by the Royal Commission into Aboriginal Deaths in Custody [17]. Law enforcement procedures have, at very low cost, resulted in substantial reductions in service to intoxicated customers and in some cases levels of harm. For example, a US study estimated that for every dollar spent on enforcement between $90 and $280 (US) was saved by reducing alcohol-related traffic crashes. Furthermore, drink driving offences, where a licensed premises was cited as the

last place of drinking, declined from 32% to 23% [8].

A major problem with enforcement in Australia, however, is the fact it rarely occurs as a matter of routine [4], and civil law suits, or server liability cases, are virtually unheard-of [18]. Consequently, major 'incentives' for the widespread introduction of more responsible policies and practices are missing, and there is no reason to believe this will not continue to be the case in the foreseeable future.

Other relevant issues are profitability and mandatory training for managers and licensees. It should not be surprising that unless licensees and managers can be convinced that adopting responsible serving policies and practices will not adversely impact on their profitability, they are unlikely to do so voluntarily. Further studies, such as the Surfers Paradise Safety Action Project [19], are needed to demonstrate to the hospitality industry that responsible serving can be good for business. In the case of licensee and manager training it is clear, both from the research literature [18] and the positive support emanating from within the hospitality industry [5], that mandatory training is essential to help underpin the type of initiative we have reported here.

Can training bar staff to serve alcohol responsibly reduce alcohol-related harm? Based on our analysis and the evidence from earlier studies, both overseas and in Australia, the unequivocal answer is *no*. This is especially so when training is not delivered meaningfully and/or lacks the essential ingredient of management support, and where there is no routine enforcement of licensing laws.

Where management are prepared to support responsible serving policies dramatic changes and improvements in standards service can occur, as evidenced from the single case noted above. While not negating the necessity for stricter enforcement of licensing laws, the adoption and meaningful implementation of voluntary measures to improve policies and practices throughout the hospitality industry may well have benefits to the wider community in terms of reducing drink driving, traffic accidents and other forms of alcohol-related harm. In the meantime, it would be sensible to have Federal and State policies that create a disincentive for *not* training bar staff in responsible serving practices; for example, through mandatory server training [20], and/or through the application of 'dram shop' laws [21]. The latter allows that licensees or managers who train their staff adequately can use this as a defence

in the case of third-party law suits resulting from the actions of intoxicated customers.

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