

ORIGINAL ARTICLE

Training bar staff in preventing and managing aggression in licensed premises

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Abstract

Objectives: (1) to evaluate changes in knowledge and attitudes of participants in the “Safer Bars” training programme to reduce aggression in bars; (2) to assess the relationship of scores on knowledge/attitudes questionnaires with participant’s role in bar, gender and years of experience, and geographic location of the bar; and (3) to assess consumer satisfaction and elicit subjective feedback regarding the programme.

Methods: Five hundred and twenty-two bar staff and managers from 23 bars completed knowledge/attitude tests before and after the 3-h training and provided consumer satisfaction ratings.

Results: Participants rated the training very highly and showed significant improvements in knowledge and attitudes related to preventing aggression and managing problem behaviour. In multivariate analyses, being male, having more years of experience, being a manager or bartender and being employed at a city-centre bar were all independent predictors of higher pre-test training scores; however, only being a manager and being employed at a city-centre bar significantly predicted higher scores on post-test knowledge and attitudes.

Conclusions: The positive response to the “Safer Bars” training and the significant improvement in knowledge and attitudes indicate that programmes of this type have the potential to be an effective public health strategy for reducing bar-related violence and injury.

Keywords: *alcohol, education, violence, public policy.*

Licensed premises (bars, nightclubs, taverns) have been shown to be high-risk drinking locations for intoxication, drinking and driving, aggression and injury (Ireland & Thommeny, 1993; O’Donnell, 1985; Parker & Williams, 2003; Snow and Landrum, 1986; Stockwell, Lang, & Rydon, 1993). Accordingly, interventions specifically focused on training bar staff have been developed. Most widespread are Responsible Beverage Service (RBS) programmes, which train bar staff to recognize and refuse alcohol service to underage or intoxicated patrons (see Toomey et al., 1998, for a review of content of US RBS programmes; see Graham, West, & Wells, 2000, for a review of interventions with licensed premises generally). Traditionally, these programmes were primarily focused on

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the service of alcohol and not on preventing problem behaviour generally. More recently, interventions have been developed to complement RBS training by focusing explicitly on managing problem behaviour, with the training directed mainly towards security or door staff (Homel, Hauritz, Wortley, McIlwain, & Carvolth, 1997; MCM Research, 1993). As yet, no formal evaluations of these programmes have been reported in the research literature, although observational data collected as part of community action projects have suggested that training bar staff results in better attitudes among staff and lower rates of aggression, at least in the short term (Hauritz, Homel, McIlwain, Burrows, & Townsley, 1998; Homel et al., 1997).

There are several reasons for developing staff training programmes that go beyond the RBS. First, research on aggression in bars has found that many members of staff lack the ability and team coordination to intervene effectively in problem situations; moreover, some research suggests that some staff members actually initiate aggression (Graham, LaRocque, Yetman, Ross, & Guistra, 1980; Graves, Graves, Semu, & Sam, 1981; Wells, Graham, & West, 1998). In fact, according to Solomon and Payne (1997), bars have been sued more often for using unnecessary or excessive force than for any other single reason. Second, not all aggression is related to patrons being under age or served too much alcohol. For example, ethnographic research suggests that some patrons go to bars looking for fights (Burns, 1980; Graham & Wells, 2003). Finally, and perhaps most importantly, RBS programmes operate under the implicit assumption that it is the staff that serves alcohol to patrons and that also monitors behaviour and intervenes in problem situations. However, in many large-capacity bars, customers obtain their own drinks and drinks for friends from multiple bartenders who cannot monitor consumption levels adequately (Kulis, 1998). In these bars, it is non-serving security staff (also called “doormen”, “door staff” or “bouncers”) that has the responsibility for managing problem patrons and preventing aggression. Thus, training is needed that goes beyond serving practices by focusing on behaviour management skills and teamwork in preventing and better managing problem behaviour. Finally, it is not only patron safety that is at issue. A recent study of homicides in Chicago workplaces between 1965 and 1990 (Hewitt, Levin, & Misner, 2002) found that tavern workers had the highest risk of workplace homicide of all occupations studied. Therefore, training bar staff in prevention techniques related to aggression can not only make these safer drinking environments for patrons but also increase the safety of bar staff.

Development of the “Safer Bars” training programme

The “Safer Bars” programme was developed as a standalone training programme for use with all types of bars. Although the programme materials clearly indicate that preventing patrons from drinking to intoxication will reduce risk of aggression, the programme explicitly incorporates a harm-reduction approach in that it offers a range of strategies for reducing and managing violence that do not necessarily involve reducing service of alcohol. This is consistent with recent findings that other environmental factors (such as less overt sexual activity and improved comfort) are associated with effecting a reduction in aggression in bars, even when intoxication level of patrons is controlled for (Homel, Carvolth, Hauritz, McIlwain, & Teague, 2004). It also reflects a practical approach to reducing aggression and injury, given that drinking to intoxication is a clearly normative behaviour among young people (Parker & Williams, 2003).

The training protocol (Braun et al., 2000) uses (a) empirical data on typical problems encountered in bars and responses to these problems by bar staff (Graham et al., 2000;

Wells et al., 1998), (b) theoretical and empirical research from social psychology on factors that affect aggressive behaviour in general (e.g. personal space, body language; Sears, Peplau, & Taylor, 1991), and (c) behaviour management techniques developed for police officers and others who work with violent individuals (Albrecht & Morrison, 1992; Breakwell, 1997; Coggans & McKellar, 1995; Garner, 1998; Goldstein, 1983; Nelson, 1994).

The training was revised over several years in consultation with bar owners and staff, a lawyer, police, community health professionals, civic leaders and liquor licensing officials. It was pilot-tested initially with the staff of eight licensed premises (Chandler Coutts, Graham, Braun, & Wells, 2000). Then revised versions were further tested with the managers and staff of an additional 12 bars, as well as with students in a hospitality training course at a college and security staff at a university. The training covers the following six broad areas related to preventing aggression and managing problem behaviour.

1. *Understanding how aggression escalates*: recognizing the early signs of trouble; that aggression in bars typically is unplanned and follows an action-reaction process; that intervening early in this process is safer for customers and staff; and that all bar staff (not just security staff) has a role in spotting potential conflict and preventing aggression.
2. *Assessing the situation*: the importance of having back-up; ensuring adequate staff for the number of patrons involved in the problem situation; strategies for deciding who will be the leader when several members of staff are needed to intervene; communication among bar staff; avoiding potential involvement of bystanders; and making safety the primary goal (e.g. maintaining a safe distance, calling police, etc.) in extreme situations (e.g. when a weapon is involved).
3. *Keeping cool (i.e. not losing your temper)*: knowing the types of people and situations that trigger your anger; using teamwork to help one another stay cool (e.g. “tap out” technique where a touch on the shoulder by another staff member means that you must step back from a situation); and learning the legal consequences that have occurred when a member of staff has lost control and injured someone.
4. *Understanding and using effective body language (nonverbal techniques)*: using body language to de-escalate situations; defusing problem situations by appearing calm and respectful; avoiding certain non-verbal behaviours such as glaring and crossed arms; and respecting personal space boundaries.
5. *Responding to problem situations*: giving clear options and allowing the person to save face; adopting effective strategies for dealing with an intoxicated person; focusing on solving the problem—not on how it got started; and depersonalizing the situation by blaming the law or house policies (rather than taking rule breaking as a personal insult).
6. *Legal issues*: knowing the law; being aware that both bar staff and owners are liable in most circumstances; and recognizing that planning, policy and good people skills can help prevent legal problems.

The format of the 3-h training session is primarily group discussion, with overheads and video clips used to illustrate specific points. Some areas of the training use role-play, and the legal section includes a test-yourself quiz. Because of the focus on group participation, the suggested maximum number of participants is 25. The training includes a Participant Workbook (which the participants may keep), which reproduces the major points from each section of the training and provides instructions for the role-play exercises.

The purpose of the present research was to evaluate the extent of change in knowledge and attitudes of participants in the training programme and the relationship of scores on

knowledge/attitudes questionnaires with role in bar, years of experience, gender of participant and geographic location of the bar at which the participant worked. This paper also examines subjective feedback on the programme and consumer satisfaction, which are relevant to voluntary recruitment of bar staff into this type of training. It should be noted that these analyses focus explicitly on the immediate impact of the training and do not address the actual effectiveness of the training on reducing aggression, which was the focus of a previous paper (see Graham et al., 2004).

Methods

The “Safer Bars” training sessions were conducted in 23 large-capacity (capacity ≥ 300) bars and night clubs in the city of Toronto between 24 April 2001 and 3 March 2002, 18 of which received the training as part of a randomized control trial of the effectiveness of the “Safer Bars” intervention on observed aggression in bars (see Graham et al., 2004). Thirty-two training sessions were held, with nine of the larger bars requiring two sessions to accommodate their complement of staff. Group size for the sessions varied from 3 to 34 (the recommended maximum number of 25 persons per session was exceeded for 3 sessions involving 27, 28 and 34 staff). The length of each session was approximately 3 h with an additional 30–60 min to complete the evaluation forms. Most sessions were held at the bar during a time when the bar was closed. For some bars that were open 7 days a week, the training was scheduled for a time when the bar was least busy and held in a separate room or area of the bar away from customers. An evaluator (a person other than the trainer) administered the evaluation forms. At the beginning of the training session, the evaluator introduced the evaluation component using a standard script to explain the purpose of the evaluation and to obtain consent from participants, following a protocol approved by the Centre for Addiction and Mental Health Research Ethics Board. Bar staff and managers were told that participation in the evaluation was voluntary, that they were free to skip items and that responses would be kept confidential. Participants were asked to complete the evaluation forms independently and were compensated for their participation. Payment for participation was not conditional on completing the evaluation forms. Participants who received a passing score (7 correct responses out of 10) on the post-test certification questionnaire were issued wallet-sized cards indicating that they had successfully completed the “Safer Bars” training programme. Although a small number of participants left some parts of the evaluation forms unanswered, all completed the certification questionnaire. All but four participants (out of 522) received a passing mark on the certification test.

Measures

Respondent characteristics

Respondents were asked to report their age, sex, number of years working in licensed premises, number of years at the current bar and main job category.

Pre/post knowledge/attitudes

The certification test consisted of 10 true/false items that had been found in the pilot testing phase to be the most reliable and discriminatory indicators of knowledge and attitude

change. The questions covered all six sections of the training. Examples of items include: “If people start a fight in the bar, the safest thing legally is to tell them to take it outside” (this is false—bar owners and even bar staff can be held liable for injuries if they eject someone who is likely to be attacked or at risk of death or injury as a result of the ejection); “You should always try to find a way for a customer who is causing problems to ‘save face’ (keep their pride)” (true—it is easier to obtain cooperation from a problem patron if staff give the person a face-saving way out of the situation); “When you approach someone who is causing trouble, it is best to stand directly in front of the person, close-up and face-to-face” (false—this is confrontational body language that is likely to increase tension; a better position is slightly angled to the side of the person). The pre/post certification test comprised the primary outcome measure for the evaluation of knowledge/attitude change following the training. In addition, two other pre/post measures were used to provide further information about the impact of the training on knowledge/attitudes. These included nine true/false items covering body language and non-verbal techniques (scored as the total correct out of 9), and 12 items using a 10-point rating scale format (1=strongly disagree, to 10=strongly agree), for which an average score was calculated with reverse scoring used for some items so that a rating of 10 reflected the ideal response for all items. The post-test also included two items measuring the perceived impact of the training on the participant’s thinking and future behaviour using a four-point response scale (1=not at all, 2=only a little, 3=to some extent, 4=a lot) in response to the following questions: To what extent did the training make you think about the ways you personally respond to problem situations? To what extent do you think the training will change the way you actually handle problem situations with patrons?

Consumer satisfaction

Items using 10-point scales (1=not at all useful, 10=extremely useful) were included on the post-training questionnaire to obtain feedback on the six different sections of the training. The same response scale was also used to rate the four different formats used in the training: video clips, participant workbook, role-play, and group discussion. The skills of the trainers were rated using five-point scales (1=was not knowledgeable, to 5=was very knowledgeable; 1=did not encourage participation, to 5=encouraged a lot of class participation; 1=did not listen, to 5=listened effectively; 1=was not organized, to 5=was very organized). Respondents were also asked whether they would recommend “Safer Bars” to others who worked in licensed premises.

Bar location

Nine of the participating bars/clubs were in the entertainment district, nine were located in the city core or near the core but not in the entertainment district, four were located in the suburbs, and one was located in a marginally skid row area.

Participants

Participation rates for bars varied from 53% to 100% of staff with an average participation rate of 85.1% of the 522 staff, managers and owners who participated in the training; 63.6% were male. The average age of participants was 28.4 years (range 13–75 years), with the majority between the ages of 22 and 29 years (54.1%). Over 50% of respondents had

worked in the hospitality industry for 5 or more years, and 45% had worked at the current establishment for 2 years or more. In terms of job at the bar, 12.1% were classified as “owner/manager” (including participants who described their job as both manager and another job such as bartender, door staff or entertainment-related, e.g. DJ), 25.3% were “door staff/security” (including those who did another job such as bartending), 29.3% were “bartenders” (including participants who reported doing both bartending and another job such as serving or bussing), 13.2% were “servers”, 12.1% were “bussers/barbacks” (i.e. persons who cleared away empty glasses and bottles but did not serve alcohol), 4.0% were classified as “host/reception/cash/coatcheck”, 1.0% were in “entertainment-related occupations” (e.g. DJ, dancer), 1.1% were classified as “other” (cleaner, kitchen staff, customer relations), and 1.9% did not specify their job category.

The five main job categories (manager, door staff, bartender, server, busser) differed significantly for gender ($\chi^2=137.9$, $df=4$, $p<0.001$), average age ($F(4,465)=20.2$, $p<0.001$), and average number of years working in licensed establishments ($F(4,464)=21.4$, $p<0.001$). In terms of gender, females accounted for 72.5% of servers, 57.5% of bartenders, 25.4% of managers, 10.6% of door staff/security and 4.8% of bussers/barbacks. Managers tended to be oldest (average age of 34.2 years), followed by door staff/security (29.3 years), bartenders (28.8 years), servers (25.4 years) and bussers/barbacks (24.6 years). Managers also had the most years of experience working in the hospitality industry (11.9 years on average), followed by bartenders (7.4 years), door staff/security (5.8 years), servers (5.5 years) and bussers/barbacks (3.5 years). The greater experience of managers and bartenders was reflected in the proportion who were still employed at the same bar when a follow-up was conducted at 12 months after the training. At this time, 71.2% of managers were still employed at the same bar, with an additional 6.8% employed at a different bar with the same owner; for the other job categories, 59.6% of bartenders, 49.2% of door staff, 39.1% of servers and 50.8% of bussers/barbacks were still employed at the same bar 12 months after the training.

Analyses

Descriptive statistics (means, percentages) were used for the consumer satisfaction measures. Matched *t* tests were used to compare the overall impact of the training on pre/post knowledge/attitude measures. A mixed model ANOVA using repeated measures for pre/post knowledge/attitude measures was used to assess the extent to which the impact of the training on pre/post knowledge/attitude measures was moderated by other variables such as job category. One-way ANOVA with post hoc comparisons using the Scheffé test were used to examine the relationship between specific variables (such as job category) and pre-test knowledge/attitude, post-test knowledge/attitudes and consumer satisfaction. Multiple regression analyses were used to assess the significance of predictors within a multivariate model.

Results

Consumer satisfaction with the training was high. The different sections of the training were all rated 8 or higher on usefulness (1=not at all useful, to 10=extremely useful), with the section on legal issues given the highest average rating (9.0), followed by the sections on body language (8.9), responding to problem situations (8.6), assessing a problem situation (8.5), understanding how aggression escalates (8.4) and keeping your cool (8.3). In terms

of training formats, group discussion was rated most useful (8.9), followed by the participant workbook (7.8), role-playing (7.4) and the video clips (7.3). The trainers also received very high performance ratings: 4.8 out of 5 on being well-organized, 4.8 on listening, 4.7 on encouraging participation and 4.7 on knowledge. In terms of the subjective impact of the training, almost all respondents reported that the training had made them think about how they personally respond to problem situations (48.7% said “a lot” and 45.0% said “to some extent”). The majority said that the training would change the way they actually handle problem situations (32.2% “a lot” and 50.0% “to some extent”). Of those who completed the feedback form, 97.7% said they would recommend the training to others (88.9% of all participants).

Pre/post change in knowledge/attitudes

Table I shows the impact of the training on knowledge/attitudes and consumer ratings of the training for all participants as well as for each of the five main job categories. There was a significant change overall on the 10-item certification test, with an average score of 7.0 before the training and 9.3 after the training ($t=33.6$, $df=514$, $p<0.001$). As shown in Table I, managers scored significantly higher on the certification questions than all other job categories at pre-test and significantly higher than doormen and bussers at post-test (based on one-way ANOVAs done separately for pre- and post-tests). A mixed model ANOVA (repeated measures for pre- and post-scores on the certification test with job category as a between-subjects variable) indicated a significant time by job category interaction ($F(4,475)=2.7$, $p=0.032$), with the greatest change evident for the job categories that scored lowest on the pre-test.

Pre/post scores on the knowledge/attitude items that were measured using a 1–10 scale and the true/false items relating to body language showed significant overall improvement following the training ($t=20.1$, $df=461$, $p<0.001$; and $t=22.1$, $df=451$, $p<0.001$, respectively). As with the certification test, managers obtained the highest scores on the scaled knowledge/attitude items, significantly higher than door staff and bussers at both pre-test and post-test. Bartenders scored higher than bussers at pre-test, and both bartenders and servers scored higher than door staff and bussers at post-test. There was a significant overall effect of job category for pre-test scores on the nine true/false items relating to body language, with managers, bartenders and servers generally scoring higher than door staff and bussers; however, no pairwise comparisons were significant. There was no significant effect of job category for post-test scores on the true/false body language items. The mixed model ANOVA indicated that the relationship between pre/post change on the scaled knowledge/attitude items and job category was not significant ($F(4,422)=1.7$, $p=0.154$). The mixed model ANOVA of the total score on the nine true/false items relating to body language indicated a significant pre/post change by job category ($F(4,428)=2.5$, $p=0.046$). As with the certification test, the greatest change was evident for job categories that scored lowest on the pre-test.

In addition to scoring highest on the knowledge/attitude measures, managers also reported the highest ratings on usefulness of training, significantly higher than bartenders (who gave the lowest rating). Managers also gave the highest average rating regarding performance of trainers (significantly higher than the lowest rating, which was by door staff/security) and rated the personal impact of the training the highest (significantly higher than door staff/security).

Table I. Results for pre/post knowledge/attitude tests and consumer satisfaction regarding training overall and by job category.

	Overall (<i>n</i> =522) ^{1,2}	Owners/managers (<i>n</i> =63) ²	Door staff/security (<i>n</i> =132) ²	Bartenders (<i>n</i> =153) ²	Servers (<i>n</i> =69) ²	Bussers (<i>n</i> =63) ²	<i>F</i> or <i>O</i> ² for main effect of job category
Total score on T/F certification items (out of 10) ³							
Pre-training (range)	7.03 (2–10)	7.87 ^{abcd} (2–10)	7.01 ^a (3–10)	7.12 ^b (3–10)	6.72 ^c (2–10)	6.70 ^d (4–10)	<i>F</i> (4,475)=14.6, <i>p</i> <0.001
Post-training (range)	9.30 (4–10)	9.67 ^{ab} (7–10)	9.15 ^a (5–10)	9.35 (4–10)	9.32 (7–10)	9.13 ^b (7–10)	<i>F</i> (4,475)=3.9, <i>p</i> =0.004
Average score on knowledge/attitude items (1–10) ⁴							
Pre-training (range)	7.11 (4.1–9.5)	7.62 ^{ab} (4.8–9.5)	6.88 ^{ac} (4.1–9.4)	7.26 ^{cd} (4.5–9.2)	7.14 (4.8–9.3)	6.70 ^{bd} (4.5–9.3)	<i>F</i> (4,442)=9.3, <i>p</i> <0.001
Post-training (range)	8.13 (3.2–10.0)	8.57 ^{ab} (5.7–10)	7.75 ^{acd} (3.2–10)	8.36 ^{cc} (6.2–10)	8.31 ^d (4.0–10)	7.74 ^{bc} (4.6–10)	<i>F</i> (4,451)=11.2, <i>p</i> <0.001
Total score on personal space/body language T/F items (out of 9) ⁴							
Pre-training (range)	7.38 (2–9)	7.64 (4–9)	7.21 (2–9)	7.53 (3–9)	7.62 (3–9)	6.95 (3–9)	<i>F</i> (4,438)=3.3, <i>p</i> =0.010
Post-training (range)	8.67 (0–9)	8.58 (0–9)	8.62 (5–9)	8.71 (3–9)	8.72 (5–9)	8.67 (6–9)	<i>F</i> (4,461)=0.4, <i>p</i> =0.797
Subjective ratings of training							
Average rating on 6 training sections and 4 formats (1, not at all useful, to 10, extremely useful) ⁴ (range)	8.29 (1.4–10)	8.85 ^a (5.7–10)	8.27 (4.0–10)	8.10 ^a (1.6–10)	8.36 (1.4–10)	8.14 (2.7–10)	<i>F</i> (4,472)=3.9, <i>p</i> =0.004
Average rating on 4 measures of performance of trainers (1, low to 5, high) ⁴ (range)	4.76 (3.0–5)	4.90 ^a (4.0–5)	4.69 ^a (3.0–5)	4.77 (3.3–5)	4.80 (3.8–5)	4.71 (3.0–5)	<i>F</i> (4,446)=3.2, <i>p</i> =0.013
Average of two items measuring perceived personal impact of training (1, not at all, to 4, a lot) ⁴ (range)	3.27 (1.0–4)	3.45 ^a (2.0–4)	3.15 ^a (1.5–4)	3.22 (1.0–4)	3.40 (1.0–4)	3.27 (1.5–4)	<i>F</i> (4,466)=3.8, <i>p</i> =0.005

¹Includes 32 participants in occupations other than the five main categories and 10 who did not provide occupation; ²Numbers vary slightly for each category due to missing responses; ³Missing responses coded as incorrect; ⁴Respondents with missing items excluded; ^{abcdc}Indicates significant pairwise differences in means using Scheffé test for post hoc.

Training, participant and bar factors associated with pre/post scores on the certification test

The following analyses focus on the primary outcome measure, the certification test. The evaluation of trainer effect is restricted to the two trainers who provided 90% of the training. As shown in Table II, there was no significant trainer effect on pre/post scores on the certification test.

The results shown in Table II also indicate that scores on the pre/post certification test were related to gender, age and number of years that the participant worked in the hospitality industry, with females scoring lower than males on the pre-test but higher on the post-test, younger participants scoring lower on the pre-test and not significantly

Table II. Factors associated with scores on the pre/post certification test.

	Pre-test score	Post-test score	<i>F</i> for mixed model test of moderating effect of variable on pre/post scores
Trainer¹			
Trainer A (<i>n</i> =304 for pre-test, 308 for post-test)	7.07	9.24	<i>F</i> (1,461)=1.8, <i>p</i> =0.176
Trainer B (<i>n</i> =159)	7.00	9.37	
	<i>t</i> =0.5, <i>df</i> =461, <i>p</i> =0.634	<i>t</i> =1.4, <i>df</i> =465, <i>p</i> =0.172	
Gender of participant			
Male (<i>n</i> =325 for pre-test, 332 for post-test)	7.22	9.29	<i>F</i> (1,458)=12.4, <i>p</i> <0.001
Female (<i>n</i> =190)	6.71	9.33	
	<i>F</i> (1,513)=13.3, <i>p</i> <0.001	<i>F</i> (1,520)=0.2, <i>p</i> =0.667	
Age category of participant			
≤21 years (<i>n</i> =63)	6.21 ^{abc}	9.06	<i>F</i> (4,445)=5.1, <i>p</i> =0.001
22 to 24 years (<i>n</i> =106)	6.90	9.33	
25 to 29 years (<i>n</i> =166)	7.13 ^a	9.42	
30 to 34 years (<i>n</i> =83)	7.42 ^b	9.29	
35 years or older (<i>n</i> =85)	7.29 ^c	9.22	
	<i>F</i> (4,502)=7.0, <i>p</i> <0.001	<i>F</i> (4,502)=1.8, <i>p</i> =0.121	
Number of years participant has worked in hospitality industry			
≤1 year (<i>n</i> =65)	6.35 ^{ab}	9.25	<i>F</i> (4,440)=6.2, <i>p</i> <0.001
>1 year and ≤2 years (<i>n</i> =58)	6.64 ^c	9.12	
>2 years and ≤5 years (<i>n</i> =144)	6.90 ^d	9.26	
>5 years and ≤10 years (<i>n</i> =145)	7.36 ^a	9.43	
>10 years (<i>n</i> =88)	7.58 ^{bcd}	9.34	
	<i>F</i> (4,499)=9.2, <i>p</i> <0.001	<i>F</i> (4,495)=1.4, <i>p</i> =0.247	
Bar location²			
Entertainment district (<i>n</i> =264 for pre-test, 267 for post-test)	7.08 ^a	9.31	<i>F</i> (2,509)=13.2, <i>p</i> <0.001
Suburban (<i>n</i> =60)	5.87 ^{ab}	9.03	
Central/non-central to city, but not entertainment district (<i>n</i> =188, 192)	7.34 ^b	9.37	
	<i>F</i> (2,509)=22.7, <i>p</i> <0.001	<i>F</i> (2,516)=2.9, <i>p</i> =0.054	

¹Includes only the two trainers who did most of the training; ²Excludes one bar in a skid row area; ^{abcde}Indicates significant pairwise differences in means using Scheffé test for post hoc comparisons.

Table III. Beta values for multiple linear regressions of pre-test certification scores and post-test certification scores on participant and bar characteristics.

	Pre-test score	Post-test score
Male participant	0.17***	0.02
Number of years participant has worked in hospitality industry	0.20***	0.01
Job category		
Manager/not manager	0.20***	0.18**
Security-door staff/not security-door staff	0.07	0.00
Bartender/not bartender	0.13*	0.09
Server/not server	0.10	0.08
Non-suburban location of bar	0.29***	0.13**

* $p < .05$, ** $p < 0.01$, *** $p < 0.001$.

different from older participants on the post-test, and higher scores on the pre-test associated with more experience in the hospitality industry (but no significant effect of experience on post-test scores). The mixed model ANOVAs found significant interactions for all three variables with greater improvement among those who scored lower on the pre-test (females, younger participants and those with less experience).

Bar location was highly related to scores on the pre-test certification test, with staff of the suburban bars scoring lower than staff in the entertainment district or other city-centre bars. There was a similar trend for post-test scores, but the difference was less pronounced and the overall effect did not reach significance. Bar location was also related to pre/post change in scores largely owing to the greater increase for the suburban bars.

To evaluate the relationship of variables to scores on the certification test in an overall model, the set of variables was entered into two multiple regression analyses, one for pre-test certification scores and one for post-test scores. Because age and years in the hospitality industry were highly correlated, only years in the hospitality industry was used in the model (for these analyses, the 5-category variable was treated as a continuous measure). Location was recoded as suburban vs. non-suburban (with the 3 staff members from the 1 skid row location excluded from these multivariate analyses). Job category was dummy-coded as four dichotomous variables (manager/not manager, doorman/not doorman, bartender/not bartender, server/not server). As shown in Table III, all variables remained significant predictors of pre-test scores in the overall model except the job categories of doorman and server (the latter showed a significant trend at $p = 0.070$). For the post-test certification score, only being a manager and working at a non-suburban bar were positively related to higher scores on the certification test. In the mixed model ANOVA with the same set of variables included, a significant interaction with pre/post scores on the certification test scores was found for sex ($p = 0.001$), years worked ($p = 0.001$) and bar location ($p < 0.001$), primarily reflecting the increase in the lower pre-test scores for females, less experienced staff and suburban staff.

Discussion

Consumer satisfaction with the “Safer Bars” training was very high, suggesting that bar staff found the training relevant and useful. It should be noted that 18 of the bars that received the training were from a random sample of 26 bars (69% participation rate) selected to receive the intervention as part of an outcome evaluation of the “Safer Bars” programme (see Graham et al., 2004). This high participation rate suggests that the

positive response from bar staff was unlikely to be due to self-selection by bar managements that are especially positive towards training. Thus, the training appears to be broadly applicable, even for bars whose management has not provided a great deal of training for bar staff in the past.

While all job categories rated the training highly, managers were especially positive about the training, which suggests that (a) the training messages are consistent with their greater experience in the hospitality industry, and (b) they would be likely to support and promote the practices taught as part of the training. The very high level of consumer satisfaction also indicates that the goals of the "Safer Bars" programme (namely to reduce aggression and injury in bars) may be more acceptable to bar staff and bar owners than the goals of Responsible Beverage Service (RBS) programmes, which are sometimes seen by bar owners and staff as unrealistic, difficult to implement and potentially leading to loss of income due to lower alcohol sales and tips (Gehan, Toomey, Jones-Webb, Rothstein, & Wagenaar, 1999; Lang, Stockwell, Rydon, & Bee, 1998; McKnight, 1991; Turrisi, Nicholson, & Jaccard, 1999). In short, by focusing on environmental changes and not solely on the service of alcohol, the programme suggests strategies that are not only good business practices in terms of safety but potentially also good for business in terms of attracting patrons to a safe and comfortable environment. Moreover, the ubiquitousness of drinking to intoxication among young people (Parker & Williams, 2003) suggests that multiple strategies are needed to improve safety in licensed premises, including approaches that do not focus on alcohol per se.

Participants in the training showed significant improvements in both the primary outcome measure (the certification test) as well as the secondary measures of knowledge and attitudes. The higher scores for managers and more experienced staff, especially on the pre-test certification test, suggest that the items provided good discrimination of staff skills and knowledge.

In addition to managers, door staff/security are a key target group for the training because they have the primary responsibility for dealing with problem patrons and because extreme violence by door staff has been documented in a number of research studies (Graham et al., 1980; Graves et al., 1981; Homel, Tomsen, & Thommeny, 1992; Lister, Hobbs, Hall, & Winlow, 2000; Tomsen, 1997; Wells et al., 1998). This job category also showed high consumer satisfaction and positive effects of the training; however, they were less responsive than managers and did less well on the post-test knowledge/attitude measures than managers and some other job categories. The role of door staff, especially in the context of the growth of large-capacity nightclubs, has been recognized as increasingly important across a number of countries (Hobbs, Lister, Hadfield, Winlow, & Hall, 2000; Lister et al., 2000; Wells et al., 1998), and there has been increasing concern about their training, personality and backgrounds. This has led to licensing and regulation of door staff being introduced in a number of jurisdictions (Arnold & Laidler, 1994; MCM Research, 1993). In terms of the results from the present study, the generally positive response by door staff/security to training in managing problem behaviour is an encouraging finding. However, door staff did not respond as positively or do as well on the post-test as some other job categories, suggesting that additional consideration needs to be given to training this group.

It is especially important to reach door staff with the training because their role in the bar requires considerable interpersonal skills, especially in that they are frequently brought into a crisis situation after it is already well under way. One way to decrease the job demands for door staff is to increase the role of other staff in preventing and managing problem

behaviour. Accordingly, the “Safer Bars” training emphasizes the interdependency of door staff with servers and other bar staff, and focuses on how all staff, including bartenders, servers and bussers can contribute to de-escalating problems and work together to curb problems before they develop. This focus was particularly valued by participants in the training, with at least seven participants (including several managers) praising this aspect of the training in the open-ended section of the feedback questionnaire. At the same time, the slightly lower responsiveness of door staff/security to the training compared with some of the other job roles suggests that more intensive efforts may need to be made to ensure a consistent impact on this group.

Although many of the variables were intercorrelated (e.g. years of experience with job category), most predictors of pre-training knowledge/attitudes continued to be significant in the multivariate model for the pre-test certification measure. Thus, as might be expected, both job category (e.g. being a manager) and years of experience were independently important factors in the extent of pre-training knowledge relevant to preventing and managing aggression. Gender was also an independent predictor, with females scoring lower on the pre-test, possibly because females rarely deal with the management of troublemakers in large-capacity bars and, therefore, may have little knowledge or experience in this area. The relationship between bar location and pre-training knowledge/attitudes also remained significant, controlling for other variables. The relationship between bar location and pre-training knowledge/attitudes reflects a pattern that we became aware of informally as bars were recruited for the study—namely that, among large-capacity bars in Toronto, staff in the suburbs tended to be much less exposed to training compared with staff in city-centre and entertainment district bars. Therefore, the training may have been most useful for these bars because of their lack of prior exposure to this type of training.

Since staff turnover is often quite high (over 50% for door staff and servers in the present study), it would be necessary to develop ways to make training available on an ongoing basis to ensure that the changes made from the training persist over the long term. In fact, in the outcome analyses (Graham et al., 2004), high turnover of managers and security staff was found to be associated with lower impact of the “Safer Bars” programme. The need for refresher training and management support for the training materials has also been identified in longitudinal research on RBS training, indicating that the effects of RBS training tend to diminish over time (Buka & Birdthistle, 1999). In addition, it needs to be kept in mind that significant changes in knowledge do not necessarily result in significant behaviour change, noted by Babor et al. (2003) with respect to alcohol education programmes; therefore, institutionalization of programmes such as “Safer Bars” would need further outcome research to assess the impact on behaviour as well as knowledge.

In sum, the findings from the present study suggest that training for bar staff on preventing and managing aggression is well received and results in improved knowledge and attitudes related to managing problem behaviour and preventing aggression. These findings together with positive findings from the outcome study (Graham et al., 2004) suggest that this type of training would be an effective public health strategy for reducing severe bar-room aggression and associated injuries.

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