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Changes in alcohol policies and practices in bars and restaurants after completion of manager-focused responsible service training

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Abstract

Introduction and Aims—Irresponsible and illegal serving practices at bars and restaurants, such as sales to obviously intoxicated patrons, can lead to various public health harms. Training managers of bars and restaurants in the development and promotion of responsible alcohol policies may help prevent risky and illegal alcohol serving practices.

Design and Methods—We implemented a training program for managers of bars/restaurants designed to establish and promote responsible beverage service policies/practices. The program included online and in-person components. Bars/restaurants were randomised to intervention (n=171) and control (n=163) groups. To assess changes in policies/practices, we surveyed managers prior to and at one and six months post training. Logistic regression models assessed changes in policies/practices across time points.

Results—The proportion in the intervention group that had written alcohol policies increased from 62% to 95% by six months post training while the control group increased from 65% to 79% ($P<0.05$). Similarly, by six months post training 70% of managers in the intervention group reported they had communicated to their staff how to cut off intoxicated patrons, a significant increase from baseline (37%) and from the change observed in the control group (43–56%). Prevalence of other policies/practices also increased post training but differences between intervention and control groups were not statistically significant.

Discussion and Conclusions—Our training program appears to have led to implementation of some policies/practices. Additional studies are needed to determine how training can be combined with other strategies to further improve establishment policies and ultimately reduce alcohol-related harms.

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Keywords

alcohol outlets; policies; responsible beverage service; training; managers

INTRODUCTION

Irresponsible and illegal alcohol service practices at bars and restaurants can lead to public health harms such as impaired driving and violence [1–4]. Alcohol sales to intoxicated patrons are a particularly common type of illegal serving practice in both the US and other countries [5–15]. Few strategies and interventions have been identified to address these illegal sales and related practices at bars and restaurants. Implementing responsible service policies at alcohol establishments, such as ensuring staff are trained in how to effectively refuse sales to intoxicated customers and having managers frequently monitor staff and customers, are potential avenues for improving serving practices at bars and restaurants.

In order to develop and promote responsible alcohol service policies and practices at alcohol establishments, managers of these establishments need sufficient training. Management is essential for creating environments to sustain and increase responsible beverage service among servers [16–18]. Managers are the persons who set policies and can ensure these are followed [19–20]. Although servers and bartenders need training, managers set expectations for responsible service in their establishments. In the 1990s, we developed a training program for managers of alcohol establishments called Alcohol Risk Management (ARM™ [21]). This program featured one-on-one customised training aimed at encouraging establishments to adopt, implement and enforce responsible alcohol service policies, many of which focused on reducing sales to obviously intoxicated patrons. Evaluation of the program showed that establishments adopted, on average, 13 of the 18 recommended alcohol service policies. The training was also effective in reducing the propensity of sales to intoxicated patrons but these effects decayed after three months [22].

With the aim of sustaining effects of the ARM program, we created a new version of the program called enhanced-ARM (eARM™). The eARM program had in-person and online components and was grounded in Social Cognitive Theory (SCT [23]). The program was designed to change managers' skills, expectancies, self-efficacy, intentions and social support for implementing and enforcing establishment policies. The purpose of grounding the training in these SCT concepts was to increase the likelihood that managers would create a plan to take these actions, and create sustained changes in the establishment environment.

In this study, we assessed whether the eARM program affected adoption and implementation of recommended alcohol service policies and practices among managers. We assessed SCT concepts as they pertain to managers (e.g. skills to implement and enforce policies; Figure 1) before the program and at two points following the program. We also assessed how differing levels of participation in the program affected adoption and implementation of practices and policies. Results from this study can help assess the mechanisms through which eARM may affect likelihood of illegal alcohol sales and guide development of future training programs.

METHODS

We implemented our study in 15 communities (two large adjacent cities and 13 suburban communities) in one large metropolitan area. The Institutional Review Board at the University of Minnesota approved this study.

Design

We randomly assigned to intervention (full training) or control (brief, delayed training) conditions. All participating establishments received \$100. To assess potential effects of our program we conducted surveys with establishment managers.

Sample

To identify alcohol establishments in the study area, we obtained a list of the 1,132 on-premise alcohol establishments from the State Department of Public Safety. We mailed an introductory postcard to each establishment and made follow-up phone calls to managers. Of the 1132 establishments, 128 were out of business and 157 were excluded for other reasons (e.g. private clubs). Of the 847 establishments we contacted and attempted to recruit, 340 agreed to participate (40% recruitment rate); these were then randomly assigned to intervention or control conditions. Six of the 340 subsequently did not provide written consent, bringing our final number at baseline to 334: 171 intervention, 163 control. We compared intervention and control establishments at baseline on characteristics of the neighbourhoods (e.g. residential vs. commercial), establishments (e.g. number of servers) and managers (e.g. years in the service industry; see [15,24,25] for a more complete description of these variables) and found no statistically significant differences between the conditions, suggesting the randomisation was successful.

eARM Program

The goal of the eARM program was to promote the adoption and implementation of establishment policies to encourage responsible alcohol service. The main focus of the study—and the training—was prevention of sales to obviously intoxicated patrons; however, the training also provided information and resources focused on other relevant areas, such as preventing sales to underage youth and maintaining a safe environment. All training components were developed and implemented by eARM staff members who had 10 or more years of experience in the hospitality industry. The program consisted of two face-to-face sessions and online components. During the first face-to-face session, the eARM trainer provided an overview of the program and the eARM interactive website. The manager was then asked to complete online components that included guided development of an establishment-specific policy manual and provided suggestions on how to implement policies. Once the manual was completed, the trainer helped the manager introduce the newly adopted establishment policies at a one-hour staff meeting. Completion of all activities up to and including the staff meeting marked the ending of the *core* training phase. Online resources were available throughout and after the core training, including server training.

Surveys

To assess potential changes in management policies and practices and SCT-related concepts, we surveyed managers (or main decision makers) prior to and at one and six months post implementation of the core training. Response rates were 100% (334/334) at baseline, 84% (281/334) at first follow-up and 76% (254/334) at second follow-up. Those who completed all three surveys were not significantly different at baseline from those who did not ($P < 0.05$) based on sex, race/ethnicity, title, number of years in current position or number of years in the hospitality industry. Intervention establishment response rates were 100%, 80% and 70% at the three time points respectively; control establishment rates were 100%, 88% and 83% respectively. At baseline, 135 of the respondents were managers, 118 were owners and 81 were assistant managers or another title (from this point forward all referred to as *managers*). At baseline, a majority of respondents (63%) were male, 81% were white and 65% were over the age of 35 years. Most respondents (62%) had been in their current position for five years or less and 77% had been in the service industry over 10 years. We attempted to survey the same manager at each of the follow-up surveys. If there had been a change in management, we asked to talk with the new manager who was in charge of establishing policies. At 74% of establishments the same respondent participated at each time point (67% intervention, 80% control), at 13% two different persons participated (16% intervention, 11% control), and at 3 establishments (2 intervention, 1 control) we surveyed three different respondents. Another 12% of establishments (15% intervention, 8% control) only participated at baseline.

Measures

Our main outcome measures for this study were practices, policies and SCT-related factors (e.g. intentions, skills) from the manager survey. We measured 14 separate survey items and two indices that combined conceptually similar survey items. Two general items were: (i) Does your establishment have any written policies regarding the sale of alcohol (yes, no); and (ii) How frequently do you have staff meetings where you discuss solutions to problems your servers are having regarding responsible service of alcohol (daily, at least 1/week, a couple times per month, 1/month, a few times a year, never; collapsed to at least monthly vs. less frequently).

To capture managers' SCT-related factors, we assessed how strongly they agreed with 12 statements (1=strongly disagree, 2=somewhat disagree, 3=somewhat agree, and 4=strongly agree). Four statements captured self-efficacy, skills, intentions and social support specific to refusing sales to intoxicated patrons: (i) I am confident that I can deal with an angry customer who has been cut off; (ii) Management has developed and communicated the steps staff should take when cutting off intoxicated customers from alcohol service; (iii) I always support servers' decisions to cut off intoxicated customers; and (iv) Other managers always support servers' decisions to cut off an intoxicated customer. Five statements measured skills, intentions and self-efficacy pertaining to serving practices that were not specific to refusing sales to intoxicated patrons: (i) I will ensure all servers are trained on alcohol policies before they can begin serving alcohol at my establishment; (ii) When the establishment is open, at least one manager frequently walks around to monitor staff and customers; (iii) I often tell my servers to come to me, or another manager, if they are having

a problem with an alcohol sale; (iv) I am confident that I can get other managers to enforce establishment policies; and (v) Staff have been trained in steps they need to take when they identify a fake ID. Three items captured perceptions and expectancies of legal liability and risk: (i) A business in my community will be cited by licensing or police if they serve alcohol to an obviously intoxicated customer; (ii) Both the establishment and the servers make money when we strictly follow our establishment's alcohol policies; and (iii) Strictly following establishment alcohol policies will lead to fewer problems for both the establishment and our customers. We dichotomised responses for all 12 items to 1=strongly agree vs. 0=other, based on the frequency distribution of responses and for ease of interpretation.

One index combined the collapsed dichotomous responses for the four items pertaining to refusing sales to intoxicated patrons (range was 0–4; collapsed to high (4), medium (3) and low (2) based on the frequency distribution). The second index summed the collapsed dichotomous responses to the six survey items that were most strongly emphasised throughout the training program: (i) have written policies regarding alcohol sales; (ii) ensure all servers are trained on alcohol policies; (iii) often tell servers to come to me, or another manager, if having a problem with an alcohol sale; (iv) always support servers' decisions to cut off intoxicated customers; (v) trained staff in how to cut off intoxicated customers; and (vi) strictly following alcohol policies will lead to fewer problems (range was 0–6; collapsed to high (6), medium (4–5), low (3)).

We used two measures to assess level of program participation: (i) completed core training (yes, no); and (ii) demonstrated at least moderate use of the website after completing core training (yes, no). Moderate use of the website was defined as logging at least eight times (8–9% of establishments), downloading at least one resource (e.g. policy and implementation tips, fact sheets; 4–5% of establishments), *and/or* having at least one server participate in online server training (13–14% of establishments; this measure was defined based on frequency distribution of tasks across managers).

Analyses

We first computed descriptive statistics for all outcome measures for each time point for intervention and control establishments. We then computed logistic regression models to assess changes in outcomes across time points and between intervention and control groups, with a random effect to account for repeated data over time ($P<0.05$). We assessed changes from baseline to one-month follow-up and from baseline to six-month follow-up. We computed separate models for each outcome. In these models we tested a time by condition (intervention vs. control) main effect. To assess how levels of participation in the program potentially affected our outcomes, we computed a similar series of models with a three-level condition variable (e.g., core training, not core training, control) for each participation variable. All analyses were conducted in SAS/STAT version 9.4.

RESULTS

Primary results are summarised in Table 1. At all time points, nearly all managers (85%) strongly agreed with four of the statements, including they will always support servers'

decisions to cut off a patron. Few managers reported they have staff meetings at least monthly across time points. Three items and one index demonstrated significant changes across time points when comparing intervention and control groups. The proportion of intervention managers who reported having written alcohol policies was 91% at one month and 95% at six month follow-up which were significant increases from baseline (62%) compared to controls. Similarly, by both one- and six-month follow-up, at least 70% of managers in the intervention group strongly agreed they trained staff in how to cut off intoxicated patrons, which were significant increases from baseline (37%) compared to controls. Two other significant increases when comparing intervention and control were only at one-month follow-up—staff trained in steps to handle a fake ID and the index regarding a high-focus of the training.

Examination of levels of participation in the program reveals similar patterns as the primary results. Among establishment managers who completed the core training ($n=119$; Table 2), three measures showed significant increases compared to controls at both one and six-month follow ups: (i) those who had written alcohol policies increased from 58% to 98% by one month ($P<0.0001$) and to 99% by six months ($P=0.0001$); (ii) those who strongly agreed they had trained staff in how to cut off intoxicated patrons increased over 30 percentage points at one month ($P<0.0001$) and six months ($P=0.002$); and (iii) those who strongly agreed that their staff were trained in handling a fake ID increased over 30 percentage points at one month ($P=0.002$) and six months ($P=0.02$). Both indices also significantly improved at the first but not second follow-up compared to controls. Among establishments that demonstrated at least moderate use of the website post core training ($n=34$; Table 3), two measures showed significant increases compared to controls: (i) those who strongly agreed they had trained their staff in how to cut off intoxicated patrons increased over 40 percentage points at one month ($P=0.0007$) and six months ($P=0.009$); and (ii) the proportion who strongly agreed that their staff were trained in handling a fake ID significantly increased over 50 percentage points at one month ($P=0.0008$) and six months ($P=0.004$).

DISCUSSION

Our study is one of the first to examine whether an alcohol management training program can influence the skills, intentions, policies and practices of managers of bars and restaurants. A primary focus of the eARM program was the development and implementation of establishment-specific alcohol policies, particularly with respect to reducing the propensity of sales to intoxicated patrons. A few of our measures showed improvements in manager-related outcomes following the training. Intervention establishments were more likely than controls to have written alcohol policies at follow-up time points. Intervention managers were also more likely than controls to have trained staff in refusing sales to intoxicated patrons. In addition, we found that our index measuring key areas focused on in the training changed in the expected direction, with intervention establishments showing improvements compared to baseline at one-month follow up but no longer by the six-month follow-up. The other policies/practices we analysed did not show significant changes at follow-up (intervention vs. control group).

We further examined how differing levels of participation in the training program affected our outcomes. We found that for a few of our outcomes, those who more fully participated in the training program showed more improvement, suggesting that more engaged participants may gain greater benefits. Managers in intervention establishments who completed the core training (compared to those who did not) demonstrated greater improvement in having written alcohol policies and in training staff on how to refuse sales to intoxicated patrons. These are the same two outcomes that were significant in our overall analyses. In addition, intervention establishments who completed the core training demonstrated greater improvement in training staff on handling patrons with fake IDs. Similarly, intervention managers who used online resources beyond what was required for the core program demonstrated significantly greater improvement in training staff on refusing sales to intoxicated patrons and in handling patrons with fake IDs compared to controls. Because only 34 managers used online resources beyond what was required for the core program, this was a small group for statistical comparisons. For a few of our outcomes (e.g. have written policies), this group showed improvements compared to controls but the differences were not significant perhaps due to low power. Nevertheless, nearly 20% of our program participants went beyond what was required for the core training; perhaps the rest of the participants require a more robust intervention.

Although the eARM training program appeared to influence managers in making a few key improvements, for many of the other policies and practices and SCT concepts that we measured there were not significant changes in the intervention establishments compared to controls. Some of these items were not primary focuses of the training, and hence may not have been adequately addressed. For a number of these measures, the managers at the intervention establishments demonstrated improvements but controls demonstrated similar improvements. Several explanations could apply. Perhaps there were spillover effects to the control establishments or perhaps participation in the survey itself created an intervention effect among the managers at control establishments. Or there may simply have been a time trend that was not due to our training program, with all establishments improving in these outcomes over this period. Another factor may have been the ceiling effect that was evident for several of our outcome measures. At baseline, 80% or more of managers endorsed five of the 14 outcomes and an additional three outcomes were endorsed by 73% or more managers. These data could reflect social desirability; however, we found a range of endorsement of items at baseline from 36% to 90% which suggests social desirability may be limited. The high endorsement of items at baseline presents challenges for seeing improvements at follow-up time points (and perhaps demonstrates areas that the intervention need not address). Additional studies are needed to better understand these results.

Previous publications demonstrate that the eARM training as well as its predecessor, the ARM training [22, 25], may have showed short-term but not longer-term effects in reducing propensity of sales to intoxicated patrons. These findings suggest that more research is also needed on how SCT-related behaviours, skills, etc. of managers and servers may or may not affect sales to intoxicated patrons. Combining eARM with targeted law enforcement visits at bars and restaurants to create increased deterrence and perceived likelihood of penalties among servers and managers is another area for future exploration. Fell and colleagues [26] assessed effects of two commercial training programs along with targeted enforcement in 10

bars in two cities. They found mixed results but observed some improvements in server practices and other outcomes. Examination of the effectiveness of a tailored manager-focused training program such as eARM along with enforcement efforts would be beneficial to the field.

In addition to the ceiling effect for several of our outcomes noted above, several other limitations should be considered. First, all data were self-reported. As mentioned above, managers may have provided socially desirable answers, with a tendency to present themselves and their establishment in a positive light which may have been particularly true for some managers in the intervention groups at follow-up who wanted to show improvements at their establishments. However, the range in endorsement of our various measures indicates managers' willingness to show weaknesses and strengths. Other data sources beyond self-report ideally would be available such as obtaining copies of policies and surveying servers, but we have found these data difficult to obtain for both intervention and control establishments. We did survey servers from a small sample of establishments in this study; however, response rates were low at follow-up despite trying several different types of data collection methods. Another potential study limitation is that we surveyed only one manager per establishment and in some cases a different manager responded to follow-up surveys. Because the goal of the training program was to institutionalize policies and practices, responses would ideally be similar across managers. Additionally, establishments that choose to participate in this type of study may be different from those that refused to participate, which we cannot evaluate in this study. However, in an earlier study we found no difference in likelihood of illegal alcohol sales between those establishments that agreed to participate than those that did not [27]. Finally, although we attempted to be comprehensive in our survey and used SCT to guide survey development, there may be important manager practices, policies, intentions, skills, etc. that we did not measure.

Despite limitations, our study provides new insights into how a responsible service training program for managers of bars and restaurants can influence policies and practices and SCT-related concepts. The eARM training appears to have been most effective in improving two specific practices—adopting written alcohol policies and training staff in how to handle intoxicated patrons. Managers who demonstrated higher levels of participation in the training program showed particular improvement in these practices. Improvement in other policies and practices was observed but often in both intervention and control groups. More research, perhaps in other geographic areas, is needed to determine how management training influences policies and practices of bars and restaurants and how these may reduce propensity of sales to intoxicated patrons and alcohol-related harms such as violence and traffic crashes.

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Figure 1.
Enhanced Alcohol Risk Management Social Cognitive Theory concepts: Bar/restaurant managers

Table 1

Primary outcomes at baseline and follow up in Intervention vs. Control bars/restaurants

Policies/practices	Intervention (n=171)				Control (n=163)				Intervention v. Control	
	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	BL v. FU1	BL v. FU2
Percent of managers										
<i>P</i> -value										
<i>General management</i>										
Have staff meetings at least monthly	36	26	26	35	27	31			0.71	0.28
Have written policies concerning sale of alcohol ^b	62	91	95	65	72	79			<0.0001	<0.0001
<i>Refusing sales to intoxicated patrons^a</i>										
Confident I can deal with angry patron who has been cut off	74	82	83	76	82	84			0.73	0.92
Developed and communicated steps staff should take when they cut off a patron ^b	37	75	70	43	52	56			<0.0001	0.003
Always support servers' decisions to cut off a patron ^b	88	90	94	87	94	91			0.20	0.56
Other managers always support servers' decisions to cut off patrons	83	88	84	81	90	87			0.44	0.42
<i>Other responsible serving practices</i>										
Ensure all servers trained on policies before they begin serving ^b	77	88	87	79	84	85			0.21	0.48
At least one manager frequently monitors staff and customers	73	70	70	68	65	74			0.86	0.09
Often tell servers to come to me if problem with an alcohol sale ^b	85	92	92	89	92	93			0.60	0.78
Confident can get other managers to enforce policies	90	87	85	86	88	89			0.33	0.13
Staff trained in steps to take when they identify a fake ID	37	67	64	42	56	58			0.02	0.12
<i>Enforcement and expectancies</i>										
A business in community will be cited if serve alcohol to intoxicated patron	65	74	70	65	70	68			0.48	0.76
Both establishment and server make money when strictly follow policies	68	73	78	64	66	76			0.60	0.74

	Intervention (n=171)				Control (n=163)				Intervention v. Control	
	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	BL v. FU1	BL v. FU2
If strictly follow policies, will lead to fewer problems for establishment and customers ^b	90	95	88	88	94	93	88	94	0.74	0.12
<i>Indices</i>	Index score				Index score				p-value	
^a Sales to intoxicated (0–4): Means	2.8	3.3	3.2	2.8	3.1	3.1	2.8	3.1	0.10	0.29
^b High focus of training (0–6): Means	4.2	5.2	5.0	4.2	4.7	5.0	4.2	4.7	0.04	0.66

Note: BL, baseline; FU1, follow-up 1; FU2, follow-up 2; all data are model adjusted; bold text indicates $P < 0.05$

Table 2

Level of participation in Intervention at baseline and follow up vs. Control: Completed core training

	Intervention						Control (n=163)		
	Completed core training (n=119)			Did not complete core training (n=52)					
	BL	FU1	FU2	BL	FU1	FU2		BL	FU1
Policies/practices	Percent of managers								
<i>General management</i>									
Have staff meetings at least monthly	35	23	24	40	34	33	35	27	31
Have written policies concerning sale of alcohol ^b	58	98	99	71	72	83	65	72	79
<i>Refusing sales to intoxicated patrons^a</i>									
Confident I can deal with angry patron who has been cut off	71	79	82	79	90	84	76	82	84
Developed and communicated steps staff should take when they cut off a patron ^b	34	78	70	42	70	69	43	52	56
Always support servers' decisions to cut off a patron ^b	89	92	95	86	87	92	87	94	91
Other managers always support servers' decisions to cut off patrons	83	91	86	82	77	79	81	90	87
<i>Other responsible serving practices</i>									
Ensure all servers trained on policies before they begin serving ^b	73	89	88	85	88	84	79	84	85
At least one manager frequently monitors staff and customers	70	73	71	81	58	61	68	65	74
Often tell servers to come to me if problem with an alcohol sale ^b	85	91	92	85	93	92	89	92	93
Confident can get other managers to enforce policies	90	88	84	88	83	87	86	88	89
Staff trained in steps to take when they identify a fake ID	31	68	65	48	62	57	42	56	58
<i>Enforcement and expectancies</i>									
A business in community will be cited if serve alcohol to intoxicated patron	66	76	71	64	65	65	65	70	68

	Intervention						Control (n=163)		
	Completed core training (n=119)			Did not complete core training (n=52)					
	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	FU2
Both establishment and server make money when strictly follow policies	71	75	77	62	68	81	64	66	76
If strictly follow policies, will lead to fewer problems for establishment and customers ^b	88	95	91	94	94	77	88	94	93
<i>Indices</i>	Index score			Index score			Index score		
^a Sales to intoxicated (0–4)	2.7	3.3	3.2	2.9	3.4	3.4	2.8	3.0	3.1
^b High focus of training (0–6)	4.1	5.2	5.1	4.4	4.9	4.6	4.2	4.7	4.9

Note: BL, baseline; FU1, follow-up 1; FU2, follow-up 2; all data are model adjusted; bold text indicates $P < 0.05$ (compared to baseline and control).

Table 3

Level of participation in Intervention at baseline and follow up vs. Control: At least moderate use of online resources post core training

	Intervention						Control (n=163)					
	At least moderate use of online resources (n=34)			Less than moderate use of online resources (n=137)								
	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	FU2
Policies/practices	Percent of managers											
<i>General management</i>												
Have staff meetings at least monthly	32	29	17	37	25	29	35	27	31			
Have written policies concerning sale of alcohol ^b	68	100	97	61	89	95	65	72	79			
<i>Refusing sales to intoxicated patrons</i>												
Confident I can deal with angry patron who has been cut off ^a	71	84	86	74	82	82	76	82	84			
Developed and communicated steps staff should take when they cut off a patron ^{a,b}	35	82	79	37	74	68	43	52	56			
Always support servers' decisions to cut off a patron ^{a,b}	91	93	100	88	90	93	87	94	91			
Other managers always support servers' decisions to cut off a patron ^a	79	84	92	84	89	82	81	90	87			
<i>Other responsible serving practices</i>												
Ensure all servers trained on policies before they begin serving ^b	85	96	96	74	86	85	79	84	85			
At least one manager frequently monitors staff and customers	76	83	84	73	66	65	68	65	74			
Often tell servers to come to me if problem with an alcohol sale ^b	82	100	96	85	89	91	89	92	93			
Confident can get other managers to enforce policies	88	89	88	90	86	84	86	88	89			
Staff trained in steps to take when they identify a fake ID	29	83	81	38	62	59	42	56	58			
<i>Enforcement and expectancies</i>												

	Intervention												Control (n=163)
	At least moderate use of online resources (n=34)						Less than moderate use of online resources (n=137)						
	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	FU2	BL	FU1	FU2	
A business in community will be cited if serve alcohol to intoxicated patron	65	74	64	65	74	71	65	74	71	65	70	68	
Both establishment and server make money when strictly follow policies	68	84	80	69	70	77	64	66	76				
If strictly follow policies, will lead to fewer problems for establishment and customers ^b	82	96	93	92	94	87	88	94	93				
<i>Indices</i>	Index score						Index score						Index score
^a Sales to intoxicated (0–4)	2.8	3.2	3.4	2.8	3.3	3.2	2.8	3.0	3.1				
^b High focus of training (0–6)	4.3	5.5	5.4	4.2	5.1	4.9	4.2	4.7	4.9				

Note: BL, baseline; FU1, follow-up 1; FU2, follow-up 2; all data are model adjusted; bold text indicates $P < 0.05$ (compared to baseline and control).