Improving Emergency Medicine Residents' Approach to Patients With Alcohol Problems: A Controlled Educational Trial

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Study objective: We determine whether training using a structured skills-based intervention would improve emergency medicine residents' knowledge and practice in screening and intervening with patients presenting to the emergency department with alcohol problems.

Methods: In a controlled trial conducted at 2 similar emergency medicine residency programs associated with urban, Level I trauma centers, a 4-hour didactic, video, and skills-based workshop was conducted. Main outcome measures included (1) scores on changes in self-reported knowledge, current practice, self-efficacy, role-responsibility, attitudes and beliefs, and provider readiness to change from baseline to 1 year after intervention and (2) change in practice as measured by record review before and after intervention.

Results: The intervention group (n=17) had a significant increase in knowledge scores ($P<.001$) and practice with regard to percent of medical records with evidence of screening and intervention (17% before versus 58% after; 95% confidence interval [CI] 31 to 50; $P<.001$); no change was observed in the control group (n=19). These increases were significantly different between groups (95% CI 30 to 54; $P<.001$). There were no significant differences within or between groups for composite scores derived for current practice, self-efficacy, role responsibility, or readiness to change.

Conclusion: A brief, structured, educational intervention for residents contributed to significant improvement in knowledge and practice with regard to patients with alcohol problems.

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INTRODUCTION

Alcohol problems are a leading cause of preventable illness and injury[1] and represent a substantial portion of the 95 million emergency department visits each year.[2] Recent evidence has demonstrated the efficacy of early intervention for patients with alcohol problems.[3,4] These studies have been performed in a variety of settings including primary care,[5,6] inpatient trauma centers,[7] and EDs.[8-10]

The ED visit has also been shown to be a "teachable moment"[11] and represents an ideal opportunity for screening and brief intervention.[12,13] Despite this knowledge, few emergency physicians incorporate routine screening, intervention, and referral into their practice.[14,15] Barriers to screening and intervention have been described and include physician characteristics such as education, attitudes and beliefs, perceptions of role responsibility, and confidence (self-efficacy).[16,17]

Recently, attention has focused on the development of trained faculty and curricula in medical schools and graduate medical training programs.[17] Federal programs such as the Substance Abuse and Mental Heath Services Administration's Faculty Development Program grants were established to meet this need. These grants helped to develop faculty with expertise in alcohol-related issues. Although the program focused on a broad scope of medical, nursing, and social work school educators, it was small, and its ability to trigger widespread change among emergency medicine faculty was very limited. Achieving progress toward the training of emergency medicine physicians in this realm requires medical educators to devote precious training time to screening and intervention for alcohol problems in the ED setting. Standard didactic educational programs have not been shown to effectively change physician behavior and subsequently improve patient outcome.[18] There is evidence that skills-based interactive sessions can change practice.[19,20] This support, however, is methodologically limited because it is based on observational studies without adequate controls.

We hypothesized that training using a structured skills-based intervention would improve emergency medicine residents' knowledge and performance in screening and intervening with patients presenting to the ED with alcohol problems. To test this hypothesis, we developed a skills-based educational intervention and tested it in a controlled trial among emergency medicine residents. We also assessed whether emergency medicine residents' attitudes and beliefs, perceptions of role responsibility, and self-efficacy influenced their knowledge and performance.

MATERIALS AND METHODS

First- and second-year emergency medicine residents from Yale University and Harvard University participated. Both programs were similar in that they were new, 4-year programs with only 2 years of residents at the time of the study. The primary site hospitals were similar, urban, university, Level I trauma centers. The study was reviewed by the Human Investigation Committee and determined to be exempt from review under federal regulations.

Residents at Yale University received a 4-hour structured educational intervention and the Boston University residents served as the control group. The intervention took place in April of 1998 and included the following components: a 90-minute didactic program, a 30-minute video, and a 2-hour skills-based workshop. The didactic program emphasized the broad issue of alcohol and its medical complications, epidemiologic data, and the scope of the problem; definitions, screening, assessment, and diagnosis of alcohol problems; and an evidence-based review of the efficacy of brief interventions.

The video[21] addresses the concepts of brief intervention and examines physician-patient interactions in the course of an ED visit. Interviewing techniques and reflective listening are discussed. Actual ED scenarios are used to demonstrate common problems that arise when physicians attempt to counsel a patient about alcohol use. Examples of the Brief Negotiation Interview (BNI) are demonstrated.[22] The last 10 minutes of the video discusses the "Residents' Point of View," including their thoughts and experiences with

offering interventions in the ED. At the completion of the video, the components of the BNI are reviewed.

In the skills-based workshop, 3 case studies are used. Residents are placed into groups of 3 and given 3 scripted case scenarios. Each has the opportunity to role-play the part of the patient, physician, and observer in one of the cases. The physician interviews and intervenes with the patient. The patient responds to the physician as indicated in the scenario and according to the physician's cues. The observer takes notes and provides feedback regarding the physician's skill at performing the steps of the interview, using the principles of reflective listening and open-ended questions. Experienced faculty circulated among the groups to ensure that each resident could perform the essential components of the BNI.

The control group received no formal didactic or skills-based educational experiences relating to screening and brief intervention for alcohol problems.

Residents completed anonymous surveys (Appendix) at baseline and 1 year after intervention. General information included: (1) demographics (ie, age, sex, race/ethnicity, year of medical school graduation); (2) previous education in alcohol problems in undergraduate medical education and resident training programs; (3) past experience with alcohol problems and perception of prevalence in current practice; and (4) personal exposure to alcohol problems in self, family, and friends.

Subsequent items were grouped into the following categories: current practice, perceptions of confidence (self-efficacy), role responsibility, current attitudes and beliefs, and provider readiness to change approach to patients with alcohol problems. All responses were in the form of Likert scales ranging from 1 to 5, except provider readiness to change, which was on a scale of 1 to 10, simulating the scale for patient alcohol use according to the BNI.[23] Questions about confidence, role responsibility, and beliefs were similar to those reported elsewhere.[16,24,25]

Similar subsets of questions were used for specified categories. Subsets of questions included (1) screening (ie, asking about quantity and frequency and using the CAGE questionnaire)[26]; (2) assessing readiness to change; (3) performing intervention/referral; and (4) documenting. For example, under the category of current practice, all the questions begin with "How often do you: ask quantity and frequency of use; screen patients for alcohol problems using CAGE questions; assess patient's readiness to change; discuss/advise patients to change their drinking behavior; refer patients with alcohol problems; and document my assessment, intervention, and referral."

Responses ranged from never to always. Self-efficacy (confidence) questions reflected how confident one perceived themselves to be to screen, assess readiness, intervene, and document. The responses ranged from no confidence to high confidence. Responses for whether or not residents thought it was their role to perform these functions ranged from no responsibility to major responsibility.

Responses for attitudes and beliefs ranged from strongly disagree to strongly agree. Questions reflecting positive attitudes and beliefs included: (1) "Talking to patients about their drinking makes me feel like a responsible physician," (2) "Advising a patient about their drinking behavior may lead to early, successful intervention," and (3) "Treatment does work." Negative attitudes were denoted by agreeing to statements such as: (1) "It takes too much time to deal with patients' drinking behavior," (2) "There are too many legal issues regarding alcohol use and documentation to get involved," (3) "Patients will be angry if I ask these questions," (4) "Treatment does not work," and (5) "Referrals have not helped many of these patients in the past." Two other questions specifically identified from prior research[27] were included to identify barriers to screening and brief intervention: "There are no/few adequate places to refer patients" and "There are no/few role models among my attendings/peers."

Responses for provider readiness to change behavior ranged on a continuum from 1 to 10, with "not ready" denoted from 1 to 4, "unsure" from 5 to 6, and "very ready" from 7 to 10.

In addition, all residents completed the Brief Substance Abuse Attitude Scale (SAAS) to enhance the reliability and validity of the data.[28] This is a well-validated multidimensional instrument evaluating physicians'

attitudes toward substance-abusing patients, which scores 5 subscales on a 5-point Likert scale. Subscales include permissiveness, nonmoralism, nonsterotyping, treatment optimism, and treatment intervention.

Knowledge was assessed using a 20-question, multiple choice test developed specifically for this study. Categories assessed included epidemiology, screening and diagnosis, National Institute of Alcohol Abuse and Alcoholism (NIAAA) guidelines for at-risk drinking, and appropriate intervention strategies.

Twenty ED records with preselected targeted diagnoses were reviewed for each resident before the intervention and after intervention. Because of residents' broad training exposure at nonprimary ED sites, records were retrieved from the closest month before the intervention and 6 months after intervention. Targeted diagnoses, chosen because of their high association with alcohol problems, included any injury, seizures, abdominal/gastrointestinal complaints, change in mental status, and other illicit drug use. Charts were reviewed by research associates for evidence of screening, intervention, and referral. The research associates were not blinded to assignment group because the charts from the 2 institutions were readily identifiable.

The primary outcome variable in this study is change in practice, as measured by a review of medical records. Twenty charts per resident were reviewed at baseline and after intervention. The proportions of patients for whom residents screened, intervened, and referred were estimated for each resident at each time point. The unit of analysis is the resident. Improvements in practice were measured by the increase in proportions over time and compared between groups. Conservatively estimating that residents mention screening, intervention, and referrals about half of the time or in 50% of the charts examined produces a standard deviation of 0.25 at the chart level per time point. With 20 charts per resident, the standard deviation in the proportion of time that screening, intervention, and referrals are mentioned for a given resident is 5% (ie, $0.25/\sqrt{20}=0.05$, or 5%). This study has 80% power to detect a difference in improvements of 5% (the assumed improvement in the control group) as compared with 10% (equivalent to an effect size of 1) with 17 residents per group. With regard to the survey items, this study has 80% power to detect a difference of one standard deviation between groups.

Before performing statistical analysis, analytic datasets were prepared by merging the before and after intervention survey data with the practice measures based on record review. The unit of analysis is the resident, so practice measures were computed by summarizing information collected in each resident's records both before and after intervention. For example, for a particular resident the proportions of time he or she screened, intervened, and referred were estimated by the proportion of reviewed records in which each specific behavior was noted.

Descriptive statistics including means, standard deviations, medians, quartiles, and ranges for continuous variables and relative frequencies for discrete variables were then generated. Descriptive statistics were generated for the combined sample and then for each group, considered separately. Composite scores were created to reflect specific attitudes and beliefs by combining the responses to specific items in the survey. The items comprising each composite scale were determined by their content and supported by a principal components analysis. To enhance interpretability, the composite scores were scaled from 0 to 100, with higher scores indicative of more positive responses (eg, more confidence, more perceived self-efficacy, more role responsibility).

The next analysis involved a formal test of the effect of the intervention. To increase precision, difference scores were computed on each survey and practice measure by subtracting the score measured before intervention from the score measured after intervention. These differences then reflected the degree of improvement. The difference scores were compared between groups using the 2 independent sample *t* test. A 2-sided *P* value less than .05 was considered statistically significant. To account for potential confounding factors between groups, tests of differences between groups were then conducted, taking into account relevant confounders (age, sex, years since graduation from medical school, number of seminar hours attended, and

whether they knew someone with alcohol problems) and using multiple linear regression analysis. SAS software (version 8, SAS Inc., Cary, NC) was used to perform all of the statistical analyses.

RESULTS

Seventeen residents comprised the intervention group, and 19 comprised the control group. Table 1 describes general characteristics, past alcohol education, and perceived clinical experience. The groups were demographically similar. There was no significant difference between groups for the number of hours of alcohol education throughout their total undergraduate and graduate medical education. The mean number of years after medical school graduation was higher in the intervention group. Both groups rated their practice with problem drinkers similarly and perceived working with a high prevalence (17% to 19%) of patients with alcohol problems on a typical shift. A large proportion of residents in both groups knew a close relation or friend with an alcohol problem. For 17% to 25% of these residents, this person was identified as an immediate family member.

Scores ranging from 0 to 100 were derived for subsets of the following categories: current practice, self-efficacy (confidence), role responsibility, attitudes and beliefs, and provider readiness to change (Table 2). The first 3 questions in the survey under each category were combined as "screen," and the 2 questions stating discuss/advise and refer were combined as "intervene." Ninety-five percent confidence intervals (CIs) denote the significance of differences (improvement) between scores before and after intervention within groups and the test for intervention (differences in improvement) between groups. Higher scores indicate more positive responses, except for the subset labeled "barriers" under attitudes and beliefs, where lower scores denote a more positive response. We found no significant differences between the intervention and control group for any of the aforementioned 5 subsets, except for 2 items. The intervention group showed greater improvement in their ability to assess patients' readiness to change and a decrease in their perceived lack of (1) resources available to refer patients and (2) available role models. There were also no significant differences between groups in any of the 5 subscales of the Brief SAAS.

Composite scores were derived by collapsing the items that comprised each subset into the 5 general category scores stated previously. Overall, the intervention group had a greater increase in current practice, self-efficacy, and attitudes and beliefs scores over time, but these were not found to be statistically significant

Table 1.
Resident characteristics.

Characteristic	Intervention (n=17)	Control (n=19)	Difference (95% CI)
Demographics			
Age, y, mean (SD)	30.2 (3.4)	30.4 (2.7)	–0.2 (–2.3 to 1.9)
Male sex, %	64.71	78.95	–14.2 (–43.4 to 15.0)
Race/ethnicity, %			
White	76.47	89.47	–13.0 (–37.4 to 11.4)
Asian	17.65	10.53	7.1 (–15.7 to 29.9)
Other	5.88	0	5.9 (–5.3 to 17.1)
Years since medical school graduation, mean (SD)	5.35 (2.4)	3.89 (1.8)	1.5 (0.1 to 2.9)
Emergency medicine year, %			
1st-year emergency medicine resident	52.82	52.63	0.2 (–32.5 to 32.9)
2nd-year emergency medicine resident	41.18	47.37	–6.2 (–38.6 to 26.2)
Alcohol education			
Total didactic seminars, %			
None	5.88	0	5.9 (–5.3 to 17.1)
1–10 h	64.71	47.37	17.3 (–15.0 to 49.3)
11–25 h	17.65	42.11	–24.5 (–53.1 to 4.2)
>25 h	11.76	10.53	1.2 (–19.4 to 21.8)
Mean (SD)	10.3 (9.2)	13.4 (8.5)	–3.1 (–9.1 to 2.9)
Clinical practice			
Rate of experience with patients with alcohol problems, %			
Little	17.65	15.79	1.9 (–22.6 to 26.3)
Moderate	64.71	42.11	22.6 (–9.2 to 54.4)
Large	17.65	42.11	–24.5 (–53.1 to 4.2)
No. of patients with alcohol problems/shift, % (SD)	19.2 (9.2)	17.2 (9.0)	2.0 (–4.2 to 8.2)
Personal exposure			
Know someone with an alcohol problem, % (SD)			
No	35.29	15.79	19.5 (–8.5 to 47.5)
Yes	64.71	84.21	–19.5 (–47.5 to 8.5)
Passing acquaintance	0	11.11	–11.1 (–25.2 to 3.0)
Friend	12.50	44.44	–31.9 (–59.3 to –4.6)
Close friend	18.75	16.67	2.1 (–22.9 to 27.1)
Extended family	31.25	11.11	20.1 (–6.0 to 46.3)
Immediate family	25	16.67	8.3 (–18.2 to 34.9)

(Figure 1). In general, approximately 70% of all residents believed that it was within their role responsibility as emergency physicians to provide screening and brief intervention. The intervention group had a significant increase in overall knowledge scores and in those questions pertaining specifically to screening, including NIAAA quantity and frequency questions and the CAGE questionnaire (Figure 2).

The intervention group had a significant increase in the practice of screening and brief intervention as measured by ED record review and the documentation of screening and/or intervention. Although the intervention group started with a lower baseline value, their improvement was significant both within their group and between groups. No improvement was noted in the control group over time (Table 3). Because few patients screened positively for each resident, the numbers were too small to report any differences pertaining specifically to practice of a brief intervention. To adjust for potential confounders, we compared improvements between groups, taking into account age, sex, years since graduation from medical school, number of seminar hours attended, and whether they knew someone with alcohol problems. Because adjusted values were

Table 2.
Survey scores.

	Intervention			Control			Between-Site Effect (Test for Intervention)	
Category	Before	After	Within-Site Effect/ Difference*	Before	After	Within-Site Effect/ Difference*	Difference†	95% CI
Current practice								
Screen	52.2	58.8	6.6	52.2	49.3	–2.2	8.8	–3.8 to 21.4
Assess readiness	45.6	52.9	7.4	47.1	47.4	1.5	5.9	–15.2 to 26.9
Intervene	54.7	63.2	7.8	62.5	66.4	6.6	1.2	–9.1 to 11.5
Document	41.2	44.1	2.9	54.4	43.1	–9.4	12.3	–8.2 to 32.9
Self-efficacy (confidence)								
Screen	71.3	82.3	11.0	72.1	71.1	1.5	9.6	–5.4 to 24.5
Assess readiness	60.3	72.1	11.7	54.4	50.0	–2.9	14.7	1.6 to 27.8
Intervene	62.5	72.1	9.6	63.2	69.1	8.1	1.5	–12.3 to 15.2
Document	72.1	72.1	0.0	70.6	68.4	1.5	1.5	–13.4 to 10.5
Role responsibility								
Screen	71.3	72.1	0.7	65.6	61.8	–0.8	1.5	–13.8 to 16.8
Assess readiness	63.2	66.2	2.9	60.9	51.3	–7.8	10.8	–7.1 to 28.6
Intervene	77.9	75.7	–2.2	75.0	75.0	2.3	4.5	–15.7 to 6.6
Document	77.9	75.0	–2.9	75.0	69.7	–4.7	1.7	–14.0 to 17.4
Attitudes and beliefs								
Positive attitudes	67.6	70.6	2.9	68.8	68.8	0.3	2.7	–12.1 to 17.5
Negative attitudes	47.8	42.6	–5.1	36.5	37.0	0.6	–5.8	–14.1 to 2.5
Barriers (resources/role models)	58.8	40.4	–18.4	42.2	47.4	4.7	–23.1	–37.0 to –9.2
Provider readiness to change								
Screen	72.9	69.3	–3.6	70.8	61.4	–7.0	3.4	–16.7 to 23.6
Assess readiness	71.2	69.9	–1.3	65.3	66.1	6.2	–7.6	–29.2 to 14.1
Intervene	80.4	76.1	–4.2	73.6	76.9	5.9	–10.2	–25.0 to 4.7
Document	75.2	79.7	4.6	77.1	67.8	–6.9	11.5	–6.5 to 29.6
Brief SAAS								
Permissiveness	11.9	11.9	0.1	12.9	12.4	–1.1	1.1	–1.4 to 3.6
Nonstereotyping	12.1	12.1	0.0	11.8	11.7	–0.1	0.1	–1.3 to 1.6
Treatment intervention	21.8	21.9	0.1	21.8	21.9	0.1	0.1	–2.8 to 2.8
Treatment optimism	20.0	19.9	–0.1	19.1	19.4	0.3	–0.3	–1.7 to 1.1
Nonmoralism	18.6	18.6	–0.1	18.8	19.8	1.2	–1.2	–2.9 to 0.5

*Difference between before and after intervention scores within site.
†Difference between sites.

not different from unadjusted values, we presented the unadjusted data.

DISCUSSION

Multiple consensus statements have been issued recommending that physicians routinely perform screening and brief intervention with their patients, including the reports of the Institute of Medicine in 1990[29] and the US Preventive Services Task Force in 1997.[30] National organizations such as the NIAAA[31] and the American Medical Association[32] have also made specific recommendations. Regardless of these efforts, most physicians do not conform to formal practice guidelines, including using specific screening tools, offering brief intervention, or offering formal referral for patients with alcohol problems.[16,33] A recent survey of emergency medicine residency directors revealed that only 25% provide education on specific screening questionnaires and only 36% teach the NIAAA quantity and frequency guidelines for at-risk drinking.[34] Effective educational interventions to promote physician practice regarding alcohol screening, treatment, and referral are needed.

We have shown benefit from a relatively brief, single-session educational intervention, which includes video and a skills-based alcohol workshop, and we have shown that the effects persisted over time. Residents participating in the training demonstrated knowledge of screening and brief intervention at 1-year follow-up and demonstrated improved performance in clinical practice. This is consistent with other researchers who have found that a single session of training has improved providers' interviewing skills[35,36] and knowledge and counseling skills regarding problem drinkers.[6,37,38] Previous studies have measured improved performance by videotaping providers with simulated patients. This study, however, measures performance by documented change in practice behavior.

Prior work has suggested that barriers to incorporating screening and intervention into practice include negative attitudes toward substance-abusing patients, lack of self-efficacy in clinical practice, and lack of

Figure 1.
Differences in composite scores. (No differences were significant.)

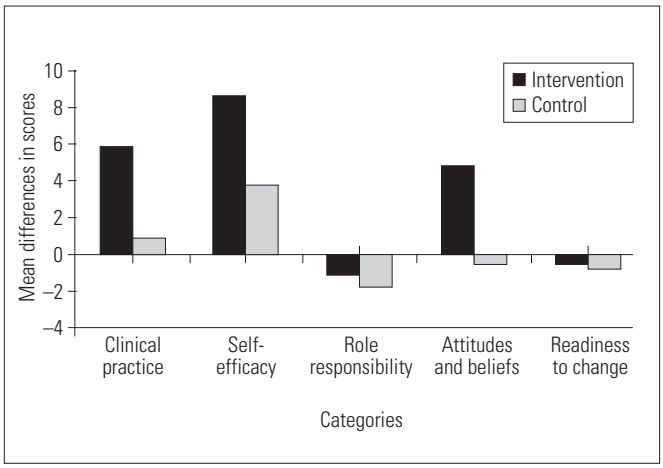
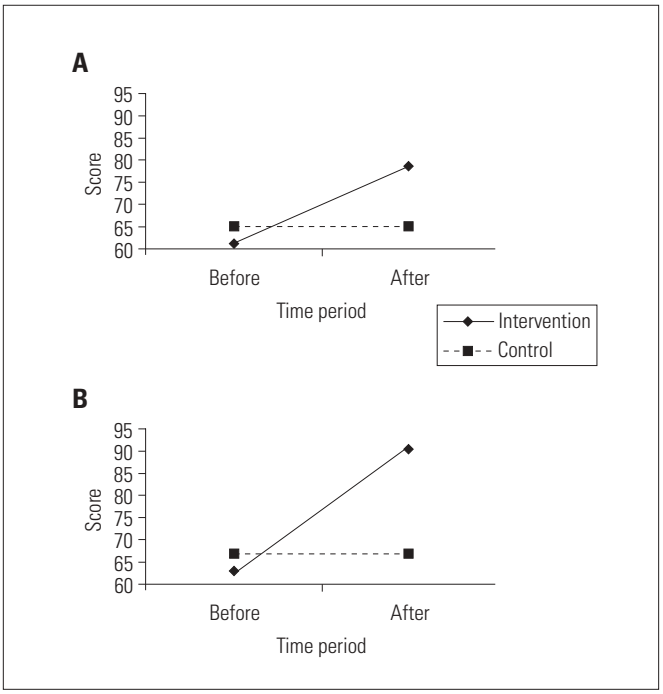


Figure 2.
Changes in resident knowledge over time. ***A,*** *Knowledge score (*P<*.001);* ***B,*** *screening score (*P<*.02).*



available time and resources.[39,40] In our study residents' perception of their current practice, role responsibility, confidence, and most attitudes and beliefs did not change over time after a relatively brief educational intervention. This lack of change in attitudes and beliefs on the survey is validated by the similar lack of change in the Brief SAAS scores before and after intervention. The lack of reported perceived change in practice of residents in the intervention group did not reflect their actual improvement as measured by chart review. This finding suggests that residents may not accurately assess and may actually underestimate their performance of these activities. It may be that a greater appreciation of the need to assess such problem behavior results in a sense of inadequacy in addressing them. The actual progress made is not appreciated by the individual physician. Another possibility is that training programs, particularly those like emergency medicine and surgical specialties, often set specific guidelines and expect adherence. Changing practice to meet these expectations may therefore occur without a detectable change in attitudes and beliefs. In addition, screening and brief intervention is a skill similar to any other procedure. Competency in performing skills and procedures is required for successful completion of any emergency medicine residency. However, changes in attitudes and beliefs may in fact require a much more substantial intervention over a much greater time period.

One limitation of the study is the small number of residents in each group. Because of the small numbers, we were unable to assess the relationships between specific characteristics of the residents, their attitudes, and their beliefs on knowledge and practice scores. Change in practice was measured by chart review. It is therefore possible that more residents screened for alcohol problems and offered a BNI or referral, but failed to document this behavior. The majority of residents documented screening for alcohol problems. The number of patients who screened positively precluded our ability to detect a difference in offering a brief intervention once patients were identified.

It is not possible in a real world setting to control for all factors that may change a resident's practice. At the intervention site, there were a few faculty members committed to screening and brief intervention, and this was probably reflected in their clinical and didactic teaching throughout the residency. However, the study results were not affected by whether or not they were the documented attending physicians in the ED, although their presence as faculty probably accounts for the response of residents in the intervention group to believe that there are physician role models for screening and brief intervention and resources available to refer patients with alcohol problems. It is possible that the climate had changed regarding screening and brief intervention at the intervention site but not at

Table 3.
Differences and changes in clinical practice.

	Intervention				Control					
			Within-Site Effect				Within-Site Effect		Between-Site Effect (Test for Intervention)	
Clinical Practice	Before	After	Difference*	95% CI†	Before	After	Difference*	95% CI†	Difference‡	95% CI
No. of charts with alcohol mentioned,§ %	17	58	41	31 to 50	32	31	–1	–10 to 7	42	30 to 54

*Difference between before and after intervention scores within site.
†95% CI for difference in scores within site.
‡Difference between sites.
§Screening and/or intervention.

the control site. This in itself is an important reason to educate faculty in training programs.

Another limitation is that the sample represents only two residency programs. Although it is possible to generalize to other urban, academic programs, it may not be possible to generalize to all emergency physicians in general. Nonetheless, the use of any control group in a study of an educational intervention is a notable strength.

Changing physician behavior has been shown to be a complex task with multiple factors involved. Didactic education itself has not been shown to be effective. Factors such as skills-based learning, institutional changes, and the inclusion of opinion leaders has been reported to be helpful.[41] This education trial was conducted in the real world setting. Therefore, residents were exposed to whatever further education and prompts that were available at the particular sites of practice. Residents at the intervention site may have been more likely to receive feedback about screening. They also perceived more support in the form of presence of role models and available resources, which have been shown to improve provider attitudes and performance.[27,42]

In conclusion, the results suggest that a brief, structured intervention including lecture, video, and a skills-based practice session contributes to the improvement of residents' knowledge and practice regarding screening and brief intervention. The potential benefit of extending screening and brief intervention to all appropriate ED patients is of such proven significance that it is crucial that practical curriculum to achieve such a goal be developed. This one-half day program is a useful first step in the development of such a curriculum.

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APPENDIX.

Sample survey completed by residents at baseline and 1 year after intervention.

DATE:_____

ALCOHOL EDUCATION SURVEY

1. IDENTIFICATION NUMBER: _____

2. WHAT IS YOUR PROFESSION:

CIRCLE ONE		
MD	Nurse	PA
1	2	3

3. HOW OLD ARE YOU?

AGE IN YEARS

4. PLEASE INDICATE GENDER?

CIRCLE ONE	
Male	Female
1	2

5. WHICH RACE/ETHNICITY CATEGORY BEST DESCRIBES YOU?

CIRCLE ONE FOR CATEGORY THAT BEST DESCRIBES YOU				
White (not Hispanic)	Black (not Hispanic)	Hispanic	Asian	Other (specify)
1	2	3	4	5 _____ _____

6. WHAT YEAR DID YOU GRADUATE FROM MEDICAL, NURSING, OR PA SCHOOL?

YEAR
19____

7. WHICH CATEGORY BEST DESCRIBES YOU?

CIRCLE ONE NUMBER TO INDICATE CATEGORY THAT BEST DESCRIBES YOU						
1st Year EM Resident	2nd Year EM Resident	3rd Year EM Resident	4th Year EM Resident	Attending Physician	Nurse	PA
1	2	3	4	5	6	7

8. IN THE PAST YEAR, ABOUT HOW MANY LECTURE/SEMINAR HOURS HAVE YOU ATTENDED ON ALCOHOL PROBLEMS?

CIRCLE ONE NUMBER TO INDICATE ANSWER			
None	1-2 Hours	3-5 Hours	>5 Hours
1	2	3	4

9. DURING YOUR MEDICAL, NURSING, PA SCHOOL AND/OR POST GRADUATE TRAINING, ABOUT HOW MANY LECTURES/SEMINARS WERE DEVOTED TO ALCOHOL PROBLEMS?

CIRCLE ONE NUMBER TO INDICATE ANSWER			
None	1-10 Hours	11-25 Hours	>25 Hours
1	2	3	4

10. HAVE YOU EVER HAD A PROBLEM WITH ALCOHOL (I.E. RELATED ILLNESS/INJURY/DWI)?

CIRCLE ONE	
No	Yes
1	2

Continued on p. 61.

APPENDIX.

Sample survey completed by residents at baseline and 1 year after intervention (continued).

11. HAS SOMEONE YOU PERSONALLY KNOW (OTHER THAN ONE OF YOUR PATIENTS) HAD AN ALCOHOL PROBLEM?

CIRCLE ONE	
No	Yes
1	2

12. HOW CLOSE WAS/IS THIS PERSON TO YOU?

CIRCLE ANY NUMBERS THAT APPLY IN THE RANGE BELOW					
Have Not Known Anyone	Passing Acquaintance	Friend	Close Friend	Extended Family Member	Immediate Family Member
1	2	3	4	5	6

13. WHAT PERCENT OF PATIENTS THAT YOU CARE FOR IN A TYPICAL ED SHIFT HAVE ALCOHOL ABUSE OR DEPENDENCE PROBLEMS? (PLEASE FILL IN A NUMBER BETWEEN 0-100)

%

14. PLEASE RATE YOUR EXPERIENCE WORKING WITH PATIENTS WITH ALCOHOL PROBLEMS?

CIRCLE ONE TO INDICATE ANSWER				
None	Little	Moderate	Large	Vast
1	2	3	4	5

15. CIRCLE THE APPROPRIATE RESPONSE REGARDING YOUR CLINICAL PRACTICE.

CIRCLE ONE NUMBER ON EACH LINE					
	Never	Rarely	Sometimes	Usually	Always
How often do you ask patients about their alcohol problems.	1	2	3	4	5
How often do you ask about quantity and frequency of use.	1	2	3	4	5
How often do you formally screen patients for alcohol problems using CAGE questions.	1	2	3	4	5
How often do you assess patients' readiness to change their behavior.	1	2	3	4	5
How often do you discuss/advise patients to change their drinking behavior.	1	2	3	4	5
How often do you refer patients with alcohol problems.	1	2	3	4	5
How often do you document your assessment, intervention and referral.	1	2	3	4	5

16. RATE THE FOLLOWING STATEMENTS ACCORDING TO YOUR CONFIDENCE/ABILITY LEVEL.

CIRCLE ONE NUMBER ON EACH LINE					
	No Confidence	Low	Medium	Moderate	High Confidence
I am confident in my ability to ask patients about their alcohol use.	1	2	3	4	5
I am confident in my ability to ask patients about quantity and frequency of their alcohol use.	1	2	3	4	5
I am confident in my ability to screen patients for alcohol problems using CAGE questions.	1	2	3	4	5
I am confident in my ability to assess patients' readiness to change their behavior.	1	2	3	4	5
I am confident in my ability to discuss/advise patients to change their drinking behavior.	1	2	3	4	5
I am confident in my ability to refer patients with alcohol problems.	1	2	3	4	5
I am confident in my ability to document my assessment, intervention and referral.	1	2	3	4	5

Continued on p. 62.

APPENDIX.

Sample survey completed by residents at baseline and 1 year after intervention (continued).

17. RATE ACCORDING TO WHAT YOU THINK YOUR RESPONSIBILITY AS AN EMERGENCY PHYSICIAN/NURSE/PA IS TO THE FOLLOWING.

CIRCLE ONE NUMBER ON EACH LINE					
	No Responsibility	Minor	Medium	Moderate	Major
To ask patients about their alcohol use.	1	2	3	4	5
To ask patients about quantity and frequency of their alcohol use.	1	2	3	4	5
To screen patients for alcohol problems using CAGE questions.	1	2	3	4	5
To assess patients' readiness to change their drinking behavior.	1	2	3	4	5
To discuss/advise patients to change their drinking behavior.	1	2	3	4	5
To refer patients with alcohol problems.	1	2	3	4	5
To document your assessment, intervention and referral.	1	2	3	4	5

18. RATE THE FOLLOWING STATEMENTS ACCORDING TO YOUR CURRENT BELIEFS.

CIRCLE ONE NUMBER ON EACH LINE					
	Strongly Disagree ← →				Strongly Agree
Talking to patients about their drinking makes me feel like a responsible physician/nurse/PA.	1	2	3	4	5
It take too much time to deal with patients' drinking behavior.	1	2	3	4	5
There are no/few adequate places to refer patients.	1	2	3	4	5
Advising a patient about their drinking behavior may lead to early, successful intervention	1	2	3	4	5
There are too many legal issues regarding alcohol use and documentation to get involved.	1	2	3	4	5
There are no/few role models among my attendings/peers.	1	2	3	4	5
Patients will be angry if I ask these questions.	1	2	3	4	5
Patients with alcohol problems are behavioral problems in the ED	1	2	3	4	5
People can stop abusing alcohol if they really want to.	1	2	3	4	5
Treatment does not work.	1	2	3	4	5
Referrals have not helped many of these patients in the past.	1	2	3	4	5
My involvement with a patient can make a difference regarding their alcohol use.	1	2	3	4	5

19. HOW READY ARE YOU TO CHANGE YOUR PRACTICE BEHAVIOR?

CIRCLE ONE ON EACH LINE										
	Not Ready ←				Unsure				→ Very Ready	
To ask patients about their alcohol use.	1	2	3	4	5	6	7	8	9	10
To ask patients about quantity and frequency of their alcohol use.	1	2	3	4	5	6	7	8	9	10
To screen patients for alcohol problems using CAGE questions.	1	2	3	4	5	6	7	8	9	10
To assess patients' readiness to change their drinking behavior.	1	2	3	4	5	6	7	8	9	10
To discuss/advise patients to change their drinking behavior.	1	2	3	4	5	6	7	8	9	10
To refer patients with alcohol problems.	1	2	3	4	5	6	7	8	9	10
To document your assessment, intervention and referral.	1	2	3	4	5	6	7	8	9	10