

Original
Contributions

ALCOHOL-RELATED PROBLEMS: EMERGENCY PHYSICIANS' CURRENT PRACTICE AND ATTITUDES

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Abstract—To determine whether emergency physicians' (EPs) attitudes affect their support and practice of brief intervention in the Emergency Department (ED), EPs completed an anonymous survey. EPs were asked about their attitudes toward patients with alcohol problems, current ED screening, use of brief intervention, and barriers to use of brief intervention. Chi-square analysis was used and a step-wise regression model was constructed. Respondents reported a high prevalence of patients with alcohol-related problems: 18% in a typical shift. Eighty-one percent said it is important to advise patients to change behavior; half said using a brief intervention is important. Attending physicians had significantly less alcohol education than residents, but were significantly more likely to support the use of brief intervention. Support was not associated with gender, race, census, hours of education, or personal experience. EPs who felt that brief intervention was an integral part of their job were more likely to use it in their daily practice. © 2006 Elsevier Inc.

Keywords—emergency department; alcohol abuse; ED documentation, alcohol screening, brief intervention

INTRODUCTION

Emergency physicians (EPs) deal daily with alcohol-related trauma and illness. Alcohol use affects all age groups. Six and a half million individuals are binge drinkers, 2.1 million are heavy drinkers, and alcohol is the most commonly abused substance by adolescents

(1,2). In 2000, an estimated 16,653 drivers died in alcohol-related motor vehicle crashes, which represented 40% of the total traffic fatalities for the year (3). It is estimated that one-third of all non-trauma hospital admissions are related to chronic alcohol use (4).

Patients with alcohol problems are more likely to present to the Emergency Department (ED) than to a primary care setting (5,6). Consequently, the ED is a place where all kinds of alcohol-related problems are seen, addressed and treated. Although "brief intervention" has been shown to be effective in the treatment of alcohol-related illness in primary care, trauma, and emergency medicine settings, few EPs provide such interventions in their everyday practice (7–10). A brief intervention is a 5–15-min counseling session to help an individual recognize his or her problem with alcohol, and motivation to change with a recommendation to stop drinking (1,12). We were interested in understanding whether the infrequent use of the brief intervention is due to a lack of knowledge or a lack of support. We hypothesized that EPs' attitudes toward patients with alcohol-related illness and injury might affect their support for and current practice of brief intervention for alcohol use in the ED.

MATERIALS AND METHODS

Study Design and Population

We developed and administered a written survey of emergency physicians to test the hypothesis that EP

attitudes toward the use of brief intervention were influenced by a spectrum of issues: personal and professional attitudes toward patients with alcohol problems; familiarity with screening and brief intervention techniques; whether or not EPs believe such intervention is part of their responsibility as emergency physicians; and barriers that impeded or prevented them from delivering the intervention.

We conducted the survey as a self-administered questionnaire to a convenience sample of Emergency Medicine (EM) resident and attending physicians at the American College of Emergency Physicians (ACEP) Scientific Assembly in Chicago, Illinois in October, 2001. The study was approved by the Mount Sinai School of Medicine Institutional Review Board with a waiver of signed consent.

Survey Content and Administration

Physicians attending the meeting were recruited by written and verbal solicitation to complete a written questionnaire taking between 5–10 min to complete. The surveys were available at a booth in the Exhibit Hall; the booth was sponsored by the Department of Emergency Medicine of the Mount Sinai School of Medicine. Subjects were told that they were participating in a research study and their completion of the survey was deemed to constitute consent. Subjects were also told that all those who completed the survey would be entered in a drawing, and at the end of each day a winner was selected to receive a modest prize (i.e., Palm Pilot, miniature television, or portable CD player).

The 45-item structured survey collected information about beliefs and attitudes toward patients with alcohol problems, knowledge about alcohol abuse and treatment, and current practice in screening ED patients for alcohol problems and providing brief interventions. Personal demographics, size and type of EM practice, previous education about alcohol problems, prevalence of alcohol-related problems in current practice, and personal experience with alcohol problems in self, family and friends were also collected.

Based upon previous work by D'Onofrio and colleagues and our observations of emergency physicians' practice, we identified five factors that seem to influence physician practice: 1) positive personal and professional attitudes toward patients with alcohol problems; 2) negative attitudes towards such patients; 3) familiarity with screening and brief intervention techniques; 4) the extent to which providers believe such intervention is part of their responsibility as emergency physicians; and 5) barriers that impeded or prevented them from delivering the intervention (13).

We developed a series of statements to query respondents regarding these five factors, some of which are similar to questions used in past studies (14,15). Respondents were asked to rate a series of statements using a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). The survey was designed with redundant items to assess each of the five factors. Table 1 displays the items comprising each of these five categories. Composite scores were created for each category by combining the responses to specific items in the survey. Statements that were phrased "negatively" (i.e., "There is not enough time in the ED to use a brief intervention.") were classified as "reversal" items. For these questions the Likert scale response values were reversed to maintain uniformity of meaning across all items. Items within each category were summed according to the average assigned Likert scale value, and then divided by the number of questions within the specified category. Additionally, to enhance interpretability, the scores were scaled from 0 to 100 by multiplying each composite value by a factor of 20.

Data Analysis

Bivariate analyses were conducted correlating demographic and attitudinal items with the two variables of interest: support for use of brief intervention for alcohol use in the ED and actual current practice of brief intervention. "Support" was defined as agreeing or strongly agreeing with the statement, "I support use of brief intervention for alcohol use in the ED." "Current practice" was operationalized using the 4-item composite variable described in Table 1. We also constructed a regression model to predict current practice of brief intervention for ED patients with alcohol-related problems. Variables with $p < 0.05$ in the bivariate analyses were entered into a stepwise linear regression model. The criterion for retention of variables in the model was 0.10.

RESULTS

A total of 598 surveys were completed by physicians practicing Emergency Medicine in the United States. Attending physicians completed 66% (396), and Emergency Medicine (EM) residents completed 34% (202) (Table 2). This represents 14% of the 2737 attending physicians and 24% of the 836 residents who attended the conference. Respondents came from 41 different states, with the largest number of participants from New York (13%) and California (6.5%). The respondents' demographics are representative of practicing U.S. emergency physicians (16). The mean age was 38.4 (SD \pm

Table 1. Survey Categories and Items Defining Composite Variables

Composite	
Current practice	I usually ask my patients about alcohol problems I use structured screening questions, i.e., CAGE I usually identify a patient's readiness to change I perform brief intervention for alcohol problems in the ED
Role responsibility	It is the EM physician's responsibility to identify and intervene with patients with alcohol problems When dealing with alcohol and trauma, it's important to advise change in patient behavior EM physicians should refer patients with alcohol problems
Attitudes and beliefs	Physicians who identify patients with alcohol problems increase chance of treatment Alcoholism is a treatable disease There is sufficient time in the ED to use brief intervention When I treat patients with alcohol problems I feel like a responsible physician My intervention can make a difference
Negative	I let a nurse deal with patients with alcohol problems There is not enough time in the ED to use brief intervention I resent the combative alcoholic in the ED When treating patients with alcohol problems I feel angry Referrals have helped these patients in the past In general, treatment for alcohol does work
Supporter	The ED is an appropriate place for alcohol intervention
Barrier	There are many role models amongst my peers for dealing with patients with alcohol problems I am not aware of places/phone numbers in my community to refer patients

8.9). Sixty-eight percent of respondents were men, 72.3% white, 11.1% Asian/Pacific Island, 7.9% black, and 4.7% Hispanic. Approximately 40% of the attending physicians graduated residency training before 1990. Nine percent (66) of the respondents were 1st or 2nd year residents and 22.1% (146) were 3rd or 4th year residents.

Respondents estimated the prevalence of patients with alcohol-related problems in a typical shift at 18%. Attending and resident physicians reported a similar number of hours of education on caring for patients with alcohol-related problems throughout their total undergraduate and graduate medical education: 8% received none, 49% received 1–5 h, and 47% > 5 h. Attending physicians reported approximately 50% less training during the most recent year, compared to residents (Figure 1).

Almost 25% of our respondents reported having alcohol problems in a family member or close friend. Approximately 45% of respondents correctly answered that half of all trauma is alcohol-related. Seventy-five percent believe that alcoholism is a treatable disease. Sixty percent responded that identification of patients with alcohol problems would improve treatment success.

Responses to selected survey items on positive and negative attitudes, role responsibility, current practice, and barriers to providing brief intervention are presented in Figure 2. Slightly more than half of respondents (51.3%) supported the use of brief intervention in the

ED. There was a significant difference regarding the support of brief intervention in the ED between attending physicians (54%) and residents (46%) (Figure 3). There was no significant association between support for brief intervention and any of the following: gender, race, age, ED census, primary site, number of lecture hours, or knowing someone with alcohol problems. Analysis for association between the composite categories and support of brief intervention in the ED are summarized in Table 3. All are statistically significant except barriers.

We modeled predictors of current practice for brief intervention. Scores on the positive attitude composite were most predictive of current practice; scores on the

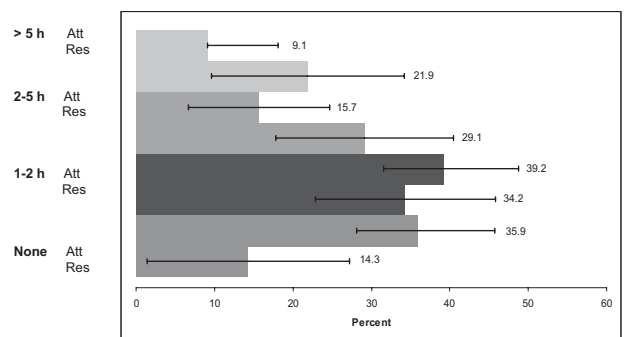


Figure 1. Differences in attending and resident education during the past year.

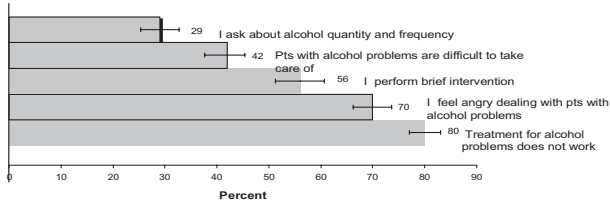


Figure 2. Frequency of survey responses.

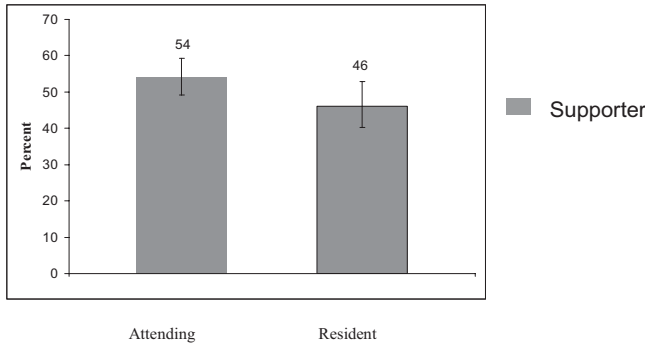


Figure 3. Attending vs. resident score: support of brief intervention.

Table 2. Respondent Characteristics

Total % (n)	Attending	66.1 (396)
	Resident	33.9 (202)
ED practice setting (%)	Urban	65.9 (394)
	Suburban	25.3 (151)
	Rural	8.5 (51)
ED census % (n)	< 20,000	7.4 (44)
	20,000–40,000	25.4 (152)
	41,000–60,000	26.3 (157)
	>60,000	40 (240)
ED site % (n)	Community	35.6 (213)
	Teaching	63.8 (379)
Family exposure to alcohol problems % (n)	Spouse/Immed	23.6 (156)
	Close friend	25 (165)
	Know no one	28.8(190)
Alcohol abuse/dependence (self) % (n)	Past	2.1
	Current	2.6
Percentage of patients w/ alcohol problems/shift % (n)	Mean (%)	18
	< 10%	25.3 (151)
	10–40%	68.0 (405)
	45–80%	6.7 (40)

Table 3. Composite Score Variable vs. Supporter Brief Intervention in ED

Composite variable (Response categories)	Supporter Mean SD	Non-Supporter Mean SD	Difference [95% CI]
Current practice	65.9 (13.0)	60.5 (13.5)	-5.5 [-7.6, -3.3]
Role responsibility	81.7 (11.4)	74.2 (13.0)	-7.5 [-9.5, -5.6]
Negative attitude	66.6 (13.9)	61.1 (11.4)	-5.5 [-7.6, -3.4]
Positive attitude	77.0 (10.1)	69.4 (11.1)	-7.6 [-9.4, -5.9]
Barriers	67.1 (15.7)	66.2 (14.2)	-0.9 [-3.4, 1.5]

Table 4. Stepwise Regression Predicting Current Practice Composite Score

Composite variable (Response categories)	Unstandardized beta	Standard error	95% CI
Positive attitude	.247	.063	0.125, 0.370
Barriers	.187	.040	0.107, 0.266
Role responsibility	.203	.052	0.091, 0.316

Adjusted R² = 0.198

barriers composite are inversely associated with practice, that is, barriers to identification and treatment of patients with alcohol problems are associated with decreased use of brief intervention in current practice. Table 4 displays the results of the regression analysis to predict current practice with regard to brief intervention in the ED.

DISCUSSION

Several national organizations currently recommend that all physicians use alcohol screening and brief intervention (17). Studies have shown the efficacy of brief intervention in patients with alcohol problems (18–20). Although an American College of Emergency Physicians Task Force has published a screening and brief intervention kit that can be used in all Emergency Departments, screening and brief intervention for patients with alcohol problems is still infrequently done by practicing EPs (21–23). Our study was designed to understand the reasons that influence EPs' behavior regarding the use of brief intervention.

Past studies have reported a variety of reasons for not using brief intervention in the ED. These include a lack of financial incentive, concerns that treatment in the ED will not be effective, belief that the ED is an inappropriate site for intervention, provider attitudes of disinterest, avoidance, or the belief that patients with alcohol problems are difficult to treat (11,24).

Our survey found that only about half of Emergency Medicine attendings and residents support the use of brief intervention in the ED. Attending physicians were more likely to support the use of brief intervention than

residents, despite a higher level of exposure to alcohol education among residents. Perhaps this is due to a greater level of clinical experience and comfort level in dealing with patients with alcohol problems among attending physicians. In our study, the most important factors associated with support of brief intervention in the ED were role responsibility and positive attitudes. Emergency physicians who see alcohol screening and intervention as a key role are more likely to include it in their daily practice.

We found that, in general, EPs do question patients with alcohol problems about quantity and frequency, but most do not screen using a structured screening tool. Although the great majority of respondents said it is their usual practice to advise alcohol-related trauma patients to change their behavior, almost half reported being unfamiliar with how to provide a brief intervention. Clearly, information about brief intervention and how to deliver it must be more widely disseminated among EPs.

As with past studies, we found that relatively little time is devoted to alcohol education during medical school and residency. Medical students and residents receive little training in dealing with patients with alcohol-related problems (25–27). Alcohol screening and brief intervention is not formally part of the curriculum of emergency medicine (27).

Changing practice requires improving education and a systems-based approach. Alcohol-related training and education has been shown to increase the use of brief intervention by residents dealing with patients with alcohol problems. In a recent study involving residents at two academic institutions, D'Onofrio showed that resident performances improved with skill-based intervention, without major change in attitudes and beliefs (28). Our findings support those reported in that study: factors that would be likely to increase the use of brief intervention include behavioral change through education and training, and improving consensus of the emergency physician's role and responsibility toward patients with alcohol problems.

LIMITATIONS

Our study was limited to a convenience sample of physicians attending a national meeting. This included a combined total of 38% attending and resident physicians who attended the conference. It may be that EPs who attend national professional meetings are better informed, more scholarly, or more interested in this topic than physicians who do not attend such meetings. Furthermore, as is always the case in survey research, those who choose to participate may differ in relevant ways from those who choose not to participate. However, the

demographic profile of our respondents does not reveal any obvious response bias.

CONCLUSIONS

Emergency physicians who feel that brief intervention is an integral part of their job and who have positive attitudes toward patients with alcohol problems were more likely to identify, intervene, and refer patients presenting to the ED with alcohol problems. Independent of attitudes, barriers may prevent emergency physicians from intervening. Identification of factors that influence emergency physicians is the first step in attempting to change practice. Increasing the use of screening and brief intervention will most likely occur with the enlistment of opinion leaders who act as role models and the development of ED protocols as well as necessary system changes to eliminate barriers and facilitate delivery.

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