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Original Contributions

EMERGENCY PHYSICIAN UTILIZATION OF ALCOHOL/SUBSTANCE SCREENING, BRIEF ADVICE AND DISCHARGE: A 10-YEAR COMPARISON

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□ **Abstract—Background: In 2007, of the 130 million emergency department (ED) visits, ~ 38 million were due to injury, and of those, 1.9 million involved alcohol. The emergency department is a pivotal place to implement Screening, Brief Intervention, and Referral to Treatment (SBIRT) due to the high number of patients presenting with alcohol/substance abuse risk factors or related injuries. Study Objective: This study compares two surveys, approximately 11 years apart, of emergency physicians nationwide which assesses the use of validated screening tools, the availability of community resources for alcohol/substance abuse treatment, and the prevailing attitudes of emergency physicians regarding Screening and Brief Intervention for alcohol/substance abuse. Methods: We performed cross-sectional anonymous surveys of 1500 emergency physicians drawn from American College of Emergency Physicians members. The survey results were compared for time interval change. Results: The two surveys had comparable response rates. The median percentage of patients screened for alcohol/substance abuse in 1999 was 15%, vs. 20% in 2010. In 2010, 26% of emergency physicians had a formal screening tool, and the majority used Cut-down, Annoyed, Guilty, Eye-opener (85%). In 2010, a statistically significant increase in the number of emergency physicians said they would "always" or "almost always" use discharge instructions that were specific for alcohol/substance abuse, if available, vs. 1999. Conclusion: Few emergency physicians screen for alcohol/substance abuse despite evidence that screening and brief intervention is effective. Emergency physicians are receptive to the use of discharge material. © 2015 Elsevier Inc.**

□ **Keywords—SBIRT; alcohol abuse; substance abuse; emergency department; discharge advice; substance screening**

INTRODUCTION

Approximately 88,000 deaths per year are attributed to excessive alcohol use in the United States. In addition, this excessive alcohol use accounts for "2.3 million years of potential life lost per year" (1). Chen and Yi reported that more than 1.9 million hospitalizations in 2010 in the United States (US) were attributed to alcohol-related causes (2). This is an increase in 300,000 deaths since 2005. Bouchery et al. estimate that in 2006 the estimated economic cost of excessive drinking was $223.5 billion, which is an increase of $38.5 billion from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) estimate in 2005 (3).

The Screening and Brief Intervention (SBI) technique has been studied since the early 1960s as a way to address risky behavior in patients who present to physicians for causes both directly and indirectly related to alcohol/substance abuse (4). Studies have consistently shown that SBI provided by a physician can increase the likelihood of a patient following up for further treatment for alcohol/substance misuse and can significantly decrease future substance abuse (4–7).

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The emergency department (ED) is a pivotal place to implement Screening, Brief Intervention, and Referral to Treatment (SBIRT) due to the high number of patients presenting with alcohol/substance abuse risk factors or related injuries. In 2001, 2.5 million of 107.5 million visits to the ED were due to alcohol alone (8).

In 2007, of the 130 million ED visits, ~ 38 million were due to injury, and of those, 1.9 million involved alcohol (9). The Drug Abuse Warning Network estimates that in 2009, about 2.1 million ED visits resulted from medical emergencies involving drug misuse or abuse (10). Of those, 21.2% involved illicit drugs and 14.3% involved alcohol in combination with other drugs (10).

Despite research indicating the need for widespread SBIRT education for physicians, to our knowledge, this has not been implemented routinely in emergency medicine curricula (7). The impact of the literature to date, as well as the federal grants and programs aimed at improving SBIRT service provision to patients, has not been adequately assessed. Our study attempted to assess if the presence of SBIRT programs and heightened awareness of SBIRT have increased rates of physician utilization of substance screening and referral.

We hypothesized that the awareness of, access to, and use of validated screening tools and specific discharge instructions has increased in the 10 years interim when compared to a similar study conducted in 1999 (11). The specific aims of this study will be to measure and compare to similar 1999 data: 1) proportions of physicians who utilize validated screening tools, 2) rates at which physicians directly address substance misuse with patients, 3) the percentage of physicians who have access to discharge instructions for substance abuse, and 4) how often physicians do or would use discharge instruction sheets, when available.

METHODS

Study Design

Cross-sectional self-administered surveys were mailed and completed in 1999 and 2010.

Study Setting and Population

Both survey studies utilized the same tool and target population pool. An anonymous survey instrument was mailed to emergency medicine physicians along with an introductory letter explaining the nature of the study. We utilized randomly generated mailing list(s) purchased from the American College of Emergency Physicians. Multiple mailings (up to three) were mailed to nonrespondents. These studies were approved by the University of Buffalo, School of Medicine (1999) and the University of Colorado at Denver, School of Medicine (2010), respectively.

Survey Content

The lead author, Kerryann B. Broderick, piloted this survey twice prior to the original 1999 study. The original survey tool draft was first sent to 10 emergency physicians (EPs) from around the country, all of whom had some expertise in survey methodology. Their comments were reviewed and the survey was revised to better reflect those comments. The survey was then sent out to 10 different emergency physicians who were not known experts in survey methodology. Their feedback was also incorporated into the survey and the final version was used in both studies.

Data were collected using a closed-response survey tool consisting of 18 questions. Questions consisted of both epidemiological and those designed to measure emergency physicians' rates of: 1) utilization of validated screening tools; 2) directly addressing substance abuse issues with patients; 3) access to discharge instructions for substance abuse; and 4) physician discharge instruction sheet utilization rates. A numerical system was utilized to track nonresponders for purposes of repeated survey mailings. This number was compared to respondents' names and marked as completed by a research assistant. This research assistant was not involved in data analysis and only checked which number responded. The survey instrument was de-identified from the participant data.

Data Analysis

Data were entered into an Access database (Microsoft Corporation, Redmond, WA) and transferred into SAS or Stata formats using translational software (dfPower/DBMS Copy, DataFlux Corporation, Cary, NC). All statistical analyses were performed using SAS Version 9.2 (SAS Institute, Inc., Cary, NC) or Stata Version 10 (Stata Corporation, College Station, TX).

Descriptive statistics for continuous variables were expressed as medians with interquartile ranges, and proportions as percentages with 95% confidence intervals (CIs).

RESULTS

Survey response rates were comparable between the two surveys. In 1999, 280/500 surveys were obtained (56%, 95% CI 52–60%), and in 2010, 516/1000 (52%, 95% CI 48–55%) responses were obtained.