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A Systematic Review on the Effectiveness of Brief Interventions for Alcohol Misuse among Adults in Emergency Departments☆

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ABSTRACT

Given the frequency with which individuals seek treatment for alcohol-related consequences in emergency departments (EDs), they may be the optimal setting to deliver brief interventions (BIs) for alcohol misuse. Studies examining the effectiveness of BIs for alcohol misuse conducted in EDs have yielded mixed results, and new articles have been published since the last review in 2008. The aim of this study was to provide an updated systematic review on the effectiveness of BIs for alcohol misuse delivered to adults in EDs. Articles published in June 2014 and earlier were identified from online databases (PsycInfo, Healthstar, CINAHL, Medline, Nursing and Allied Health). Search terms included (1) alcohol, (2) "alcohol screening", "brief intervention", "brief alcohol intervention" or feedback and (3) "emergency department" or "emergency room". Once duplicates were removed, 171 abstracts were identified for review. Thirty-four studies were included in the systematic review. All studies reported a significant reduction in alcohol consumption at 3 months post-BI, with some studies finding significant differences between the BI and control groups, and other studies finding significant decreases in both conditions but no between-groups differences. The majority of studies did not find significant between-group differences at 6 and 12 months post-BI with regard to decreases in alcohol consumption. Individuals who received a BI were significantly less likely to have an alcohol-related injury at 6 or 12 months post-BI than individuals who did not receive a BI. BIs are unlikely to reduce subsequent hospitalizations however, they may be effective in reducing risky driving and motor vehicle crashes associated with alcohol use, which can result in hospitalization. Beyond the effects generated by visiting EDs, BIs delivered in EDs may not be effective in reducing alcohol consumption, or in reducing subsequent hospitalizations. BIs may be effective in reducing some alcohol-related consequences. Future studies ought to investigate for whom BIs are most effective, and the processes that lead to decreases in alcohol consumption and alcohol-related consequences.

1. Introduction

In many parts of the world, individuals and societies face significant consequences related to alcohol consumption (World Health Organization [WHO] Expert Committee on Problems Related to Alcohol Consumption, 2007). These deleterious consequences include effects on personal health and safety, domestic and family violence, and public safety (Graham et al., 2011). Oftentimes, individuals seek treatment for consequences related to their alcohol misuse in emergency settings. It has been suggested that emergency departments (EDs) may be optimal for delivering brief interventions (BIs) for alcohol misuse (Substance Abuse and Mental Health Services Administration [SAMHSA], 1999). In an emergency setting, the prevalence of alcohol abuse is higher as compared to other settings (e.g., primary care, online screening), increasing the likelihood that patients who may benefit from such an intervention may be identified.

Havard, Shakeshaft, and Sanson-Fisher (2008) completed a meta-analysis of 10 randomized controlled trial (RCT) studies of adults and found that BIs were effective in reducing alcohol-related injuries, but did not significantly reduce alcohol consumption. Nilsen et al. (2008) conducted a systematic review of 12 studies of BIs in emergency settings for injured patients and found reductions in alcohol intake at follow-up assessments, as well as improvements on measures of risky drinking and alcohol-related consequences. Although most studies found significant differences between the BI and control groups on at least some variables of interest, some studies failed to find significant between-group differences. Since the publication of these reviews,

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several studies examining the effectiveness of BIs have been conducted (14 since 2008), and researchers have suggested that an update is required (Newton et al., 2013). The current study seeks to fill this gap by conducting a systematic review examining the evidence for the effectiveness of BIs for alcohol misuse delivered in EDs.

A BI is typically a single-session clinical intervention that takes between 5 and 30 minutes to deliver. It is focused on assessing the patient's alcohol use and related consequences, and providing feedback to promote reductions in alcohol use. The BI is based on the FRAMES model (feedback, responsibility, advice, menu, empathy, and self-efficacy), which comes from the work of Miller and Sanchez (1994). The BI draws heavily on elements that are common to many empirically validated addictions treatments, and involves several components: providing objective feedback (e.g., by using a validated measure such as the Alcohol Use Disorders Identification Test [AUDIT]); emphasizing client responsibility; giving advice; offering a menu of options; using empathy; and fostering self-efficacy (Foote et al., 1999; Miller & Sanchez, 1994). BIs are also part of the Screening, Brief Intervention, and Referral to Treatment (SBIRT; Babor et al., 2007) protocol, which draws on public health principles and focuses on early intervention for individuals with substance use disorders, or who are at risk of developing such a disorder (Babor, Higgins-Biddle, Saunders, & Monteiro, 2011). Within the SBIRT framework, BIs are conducted with patients who are at low-to-moderate risk or moderate-to-high risk for alcohol misuse and consequences. For those with moderate-to-high risk, the intervention is also paired with a referral to treatment, the aim of which is also to reduce risks related to alcohol misuse.

The current study seeks to provide an updated review of the literature on the effectiveness of BIs for alcohol misuse in EDs. There are currently no specific criteria for providing an updated review (Hopewell, 2005, April 14). The rationale for the review is based on the following suggested criteria. An updated systematic review should include: (1) new study designs (e.g., not restricted to RCTs), and (2) new outcome measures (e.g., hospitalizations). The last reviews are 6 years old, present somewhat inconsistent findings, and 14 articles have been published since then. Accordingly, we contend that this provides a strong rationale for updating the Havard et al. (2008) and Nilsen et al. (2008) reviews.

2. Method

2.1. Search strategy

A search of the literature was conducted, focusing on the effectiveness of BIs in ED settings. Articles published in June 2014 and earlier were identified from online databases (Medline, Healthstar, CINAHL, PsycInfo, and Nursing and Allied Health). Search terms included (1) "alcohol screening", "brief intervention", "brief alcohol intervention" or "feedback," (2) alcohol, and (3) "emergency department" or "emergency room," and were searched in abstracts. This search generated a total of 443 articles (146 from Medline, 121 from Healthstar, 71 from CINAHL, 75 from PsycInfo, and 48 from Nursing and Allied Health). Duplicates were removed, and 165 abstracts were identified for initial review. Scanning the reference lists of the articles initially identified for inclusion led to the identification of additional articles (excluding systematic reviews).

2.2. Inclusion/Exclusion criteria

Articles that examined the effectiveness of BIs for alcohol misuse in EDs in an adult sample were included. To be included, articles had to: (1) be published in English, (2) examine the efficacy of a BI targeting alcohol misuse, (3) take place in an ED setting, and (4) have an adult sample (majority of participants between 18 and 65 years of age). All studies included conformed to the conventional definition of a BI—namely, a single-session intervention, typically lasting between 5 and 30 minutes (Henry-Edwards, Humeniuk, Ali, Monteiro, & Poznyak, 2003); however, a few of the BIs described in studies lasted as long as 60 minutes. Studies were excluded if they included booster sessions following the delivery of a BI and did not report the effects of the initial BI alone. Studies describing BIs that aimed to reduce alcohol and drug use were included when the alcohol and drug results were reported separately. Articles that failed to meet one or more of the inclusion criteria were excluded.

A total of 443 abstracts were initially identified, and 165 abstracts were deemed relevant. After the full text was retrieved and reviewed to confirm their inclusion, 68 articles were included in the sample. Articles were excluded at this stage for the following reasons: article not written in English, did not include delivery of a BI, BI was not delivered in an ED setting, inappropriate age range, did not focus on alcohol use, outcomes not reported, outcomes reported only for readiness to change or only as a result of multiple session interventions (e.g., booster sessions), alcohol and drug use outcomes were not reported separately, and focus was the implementation of an intervention, rather than its outcomes. After reference lists were examined, 11 more articles were identified for review. The final sample at this stage was 34 articles (see Fig. 1).

2.3. Overview of articles

Several types of study designs were included in the review. Most of the studies are pre/post designs and randomized control trials. One meta-analysis, one review article, and one retrospective observational descriptive study were included. One paper and one symposium that summarized results from several studies were included. A few studies that involved secondary analyses were also included.

Studies varied with regard to their comparison condition. In many of the studies, the BI condition was compared to a control condition. Sometimes participants in the control condition were screened for at-risk drinking and then given an information booklet or printed resources. Other times, they received an assessment or usual care. Some studies compared the BI to extended counseling, and others did not have a comparison condition at all. In a few cases, there were multiple

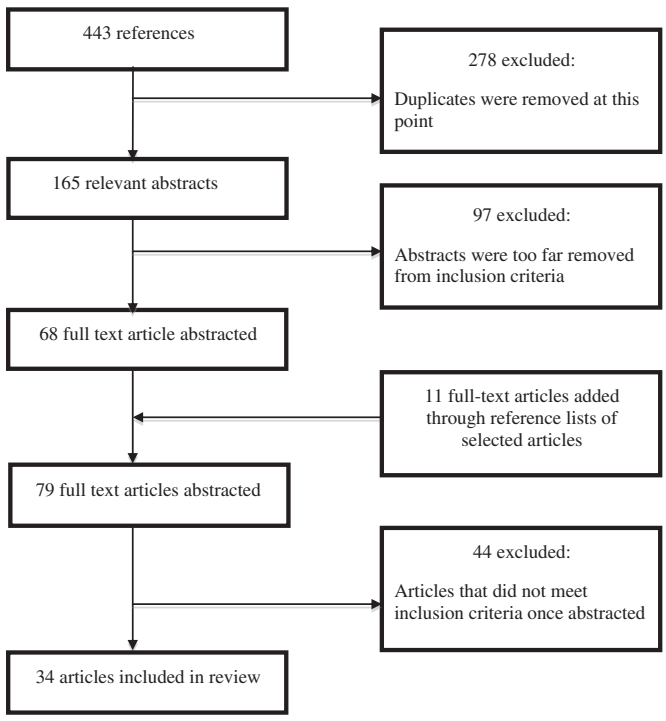

Fig. 1. Article flowchart.