Journal of Affective Disorders 147 (2013) 312–317

Contents lists available at SciVerse ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

Brief alcohol counseling improves mental health functioning in Veterans with alcohol misuse: Results from a randomized trial

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ARTICLE INFO

Article history:
Received 19 October 2012
Accepted 6 November 2012
Available online 6 December 2012

Keywords:
Brief alcohol interventions
Mental health functioning
Primary care
Alcohol misuse
Veterans

ABSTRACT

Background: Alcohol misuse occurs at high rates among U.S. Military Veterans presenting to primary care and is linked to numerous negative social and health consequences. The Veterans Health Administration has recently implemented brief alcohol interventions (BAI) in VA primary care settings. An emerging literature suggests that BAIs that target alcohol consumption may also have secondary health benefits such as reducing symptoms of depression and anxiety in civilian samples. The present study sought to examine whether secondary health benefits of BAIs observed in civilians generalize to a sample of alcohol misusing Veterans presenting to primary care.

Methods: Veterans ($N=167$) screening positive for alcohol misuse during a routine primary care visit were randomized to receive treatment-as-usual (TAU) or TAU plus a web-delivered BAI. Assessment of overall mental health functioning, posttraumatic stress disorder, and depression occurred at baseline, three- and six-month post-treatment.

Results: Veterans receiving both BAI protocols demonstrated significant improvements in mental health functioning, depressive symptoms, and use of approach coping from baseline to six-month follow-up. No differential treatment effects on these outcomes were observed.

Limitations: Findings are limited by the lack of a no-treatment control group, and the potential impact of regression to the mean and assessment effects on outcomes.

Conclusions: Our findings replicate prior studies suggesting that a single-dose BAI may have some secondary mental health benefits for Veterans presenting to primary care with alcohol misuse.

Published by Elsevier B.V.

1. Introduction

The Veterans Health Administration (VHA) has long recognized high rates of alcohol misuse among Veterans presenting to primary care to be an important health care concern. As many as 22% of Veterans presenting to primary care clinics screen positive for alcohol misuse (Hawkins et al., 2010). Alcohol misuse also occurs at high rates among U.S. Active Duty Military personnel (Institute of Medicine, 2012) and is linked to numerous negative social (Ames and Cunradi, 2004) and health (Mukamal et al., 2005) effects.

In 2004, VHA implemented the first of two initiatives focused on improving the detection and treatment of alcohol misuse in primary care. The first of which involved the implementation of universal screening for detecting alcohol misuse using the Alcohol Use Disorders Identification Test-Consumption items (AUDIT-C). This initiative was successful in that it significantly increased rates of alcohol misuse screening in VA primary care. A second initiative was implemented in 2008 which requires primary care clinicians to follow-up with Veterans who screen positive for alcohol misuse by offering them brief advice, counseling, and/or referral to specialty SUD care (Lapham et al., 2012). The Veterans Health Administration requires that all Veterans screening positive for alcohol misuse must be provided, at minimum, counseling consisting of advice to abstain or reduce alcohol use to within safe drinking limits recommended by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and education about the potential harmful effects of alcohol on their health (Lapham et al., 2012).

Provider–delivered brief alcohol interventions (BAIs) that consist of advice and education can reduce alcohol consumption in patients presenting to primary care (Fleming et al., 1997, 2000, 2002). Brief visits with a primary care physician that include advice about safe drinking limits and education about the potential health effects of excessive alcohol use can reduce the mean number of drinks, episodes of binge drinking, and frequency

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0165-0327/$ - see front matter Published by Elsevier B.V.
http://dx.doi.org/10.1016/j.jad.2012.11.028

of harmful drinking among civilian adults at 12-month follow-up (Fleming et al., 1997). Brief alcohol interventions that follow this approach may also reduce heavy drinking days, frequency of alcohol use, and severity of alcohol-related consequences among Veterans presenting to primary care for up to six-months following treatment (Cucciare et al., 2012, under review).

An emerging literature shows that BAIs focused on reducing alcohol use can improve mental health functioning in outpatient samples (Wilton et al., 2009; Kay-Lambkin et al., 2009; see also Baker et al., 2012 for a review). Wilton et al. examined the efficacy of a BAI protocol combining elements of motivational interviewing (MI) and cognitive behavioral therapy (CBT) on alcohol use and depression in an outpatient sample of postpartum women. Treatment consisted of two 15–30 min, provider–delivered treatment sessions scheduled one month apart along with two follow-up phone calls. Researchers found greater reductions in drinking days, mean total number of drinks, and depressive symptoms at six-month follow-up among participants assigned to the BAI condition when compared to controls receiving usual care. Similarly, Kay-Lambkin et al. showed that a single-session, brief intervention consisting of alcohol use assessment and feedback, brief advice to reduce substance use, case formulation, and self-help material for depression was associated with significant reductions in alcohol consumption and depressive symptoms at 12-month follow-up.

Lengthier interventions such as a 12-session CBT protocol targeting reductions in alcohol use may also reduce symptoms of anxiety in patients with comorbid alcohol dependence and social anxiety disorder (Randall et al., 2001). Randall et al. assigned individuals with alcohol dependence and social phobia to one of two 12-session CBT protocols focused exclusively on reducing alcohol use or treating both conditions concurrently. Although the alcohol-only focused CBT treatment condition produced greater reductions on alcohol outcomes, participants in both conditions reported similar reductions in anxiety symptoms. This findings further highlight the potential for treatment focused exclusively on reducing alcohol use to have important secondary benefits for mental health functioning.

To date, no studies exist that examine whether a BAI, delivered in a VA primary care clinic, can lead to improvements in mental health functioning among Veterans screening positive for alcohol misuse. Thus, we present the results of a secondary data analysis on data collected from a randomized controlled trial (RCT) conducted in a large VA primary care clinic. The primary purpose of the RCT was to examine whether a web-delivered, BAI resulted in additional benefits on alcohol-related outcomes when compared to provider counseling for alcohol misuse.

Given prior findings (Wilton et al., 2009; Randall et al., 2001), we hypothesized that participants receiving either treatment-as-usual (TAU) or TAU plus a web-delivered BAI would report improvements on overall mental health functioning, symptoms of posttraumatic stress disorder (PTSD), and depression at six-month follow-up. Although provider counseling can be effective for reducing alcohol use and related problems, variability in the extent to which they are delivered both within and across VA facilities is well documented (Williams et al., 2012). Thus, we hypothesized that Veterans receiving the combined protocol of provider counseling or TAU plus a standardized, web-delivered BAI would report greater improvements on these outcomes when compared to Veterans receiving elements of TAU only.

In addition, prior research suggests that coping styles can play an important role in accounting for increased alcohol consumption among individuals experiencing psychological distress (Hruska et al., 2011; Jakupcak et al., 2010; Cucciare et al., 2011), and have the potential to worsen symptoms associated with mental health conditions such as PTSD (Marshall et al., 2006). Therefore, we also explored the potential impact of receiving a BAI on Veterans' use of approach and avoidant coping.

2. Methods

2.1. Study design and procedure

A detailed description of the study methods and design has been reported elsewhere (Cucciare et al., under review). Data presented in this study were collected as part of an RCT examining the relative effectiveness of a brief alcohol intervention to standard care for treating positive screens for alcohol misuse among Veterans presenting to VA primary care clinics. Eligibility criteria included (a) being over the age of 17, (b) a score of 4 or greater for men or 3 or greater for women on the AUDIT-C during a clinic visit, (c) patient self-report indicating receipt of standard care - education on recommended drinking limits and the potential health effects of alcohol (Lapham et al., 2012) within the last two weeks, and (d) no indication of terminal illness, significant cognitive impairment and/or a psychotic disorder.

Eligible Veterans were referred to the study by provider referral, contacting the study team through flyers posted in clinics, or responding to a mailed letter inviting them to participate. Upon completion of the baseline assessment participants were randomized to one of two study conditions—TAU or TAU plus a web-delivered BAI. Participants in the experimental condition received the web-delivered BAI which consists of a brief (10–15 min) assessment of typical alcohol consumption, alcohol-related negative consequences, and risk factors for unsafe drinking (e.g., hepatitis C), which was used to generate a personalized feedback report (e.g., Neighbors et al., 2004; Hester et al., 2005). The contents of the report include a weekly summary of alcohol consumption, gender- and age-matched normative feedback on alcohol use, and education on concepts such as tolerance and blood alcohol concentration. Follow-up occurred at three- and six-month post-randomization. Human subjects' research approval to conduct this study was granted by Stanford University. All participants provided informed consent.

2.2. Measures

2.2.1. Demographic information

Participants indicated their age, gender, ethnicity, housing status and income, employment, and relationship status during their baseline assessment. Statistical power to detect meaningful differences between groups based on these variables was limited by relatively small numbers of participants in each (or comparison) category.

2.2.2. Alcohol Use Disorders Identification Test Consumption items (AUDIT-C)

The AUDIT-C is used by VHA as a standard screening tool for determining for determining alcohol misuse among Veterans (Babor and Grant, 1989). The AUDIT-C consists of three items: (a) "How often do you have a drink containing alcohol in the past year (never, monthly or less, 2–4 times a month, 2–3 times a week, 4 or more times a week)?" (b) "How many standard drinks containing alcohol do you have on a typical day when you were drinking in the past year (1 or 2, 3 or 4, 5 or 6, 7 to 9, 10 or more)?" and (c) "How often do you have six or more drinks on one occasion in the past year (never, less than monthly, monthly, weekly, daily or almost daily)?" Recommended AUDIT-C cut off scores of ≥ 3 for women and ≥ 4 for men (Bradley et al., 2006, 2003) were used to identify Veteran screening positive for alcohol misuse.