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Combat experience and problem drinking in veterans: Exploring the roles of PTSD, coping motives, and perceived stigma

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HIGHLIGHTS

- We proposed a path model of the relationship between combat severity, PTSD, and alcohol consequences.
- Greater combat severity and PTSD placed young adult veterans at increased risk of alcohol consequences.
- Coping motives and treatment seeking stigma mediate the link between PTSD and alcohol consequences.

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ABSTRACT

Purpose: The current investigation sought to illustrate the etiology of adverse alcohol consequences in young adult veterans using a path analytic framework.
Methods: A total of 312 veterans aged 19–34 were enrolled in a larger intervention study on alcohol use. At baseline, participants completed measures of combat severity, PTSD symptom severity, and drinking motives to cope. At one month follow-up, participants completed measures of perceived stigma of behavioral health treatment seeking and past 30-day alcohol consequences.
Results: After entering the covariates of age, gender, race/ethnicity, and past year behavioral health treatment utilization, a path analytic model demonstrated a good fit to the data predicting alcohol consequences in this population. Further, a separate exploratory analysis confirmed that both drinking motives to cope and perceived stigma of behavioral health treatment seeking mediated the link between PTSD symptom severity and alcohol consequences.
Conclusions: The current model expands upon prior research showing the relationship between combat severity and alcohol use behavior in young adult veterans. Results support the notion that veterans with PTSD symptoms may drink to cope and that perceived stigma surrounding help seeking may further contribute to alcohol related problems.

1. Introduction

1.1. Problem drinking among young adult veterans

American veterans returning home after service face a number of challenges as they attempt to reintegrate into civilian life, not the least of which involves coping with any combat related trauma they may have endured. The literature on returning veterans suggests that between 5% and 22% of returning veterans report symptoms that would effectually screen them positive for posttraumatic stress disorder (PTSD) (Bray et al., 2010; Schumm & Chard, 2012; Wisco et al., 2014). Further, there is a growing body of evidence that links PTSD with heavy drinking and related alcohol use disorder (AUD) in younger veterans of the conflicts in Iraq and Afghanistan (Jacobson et al., 2008; Larson, Wooten, Adams, & Merrick, 2012; Seal et al., 2011). Several environmental and psychosocial variables in addition to PTSD have been posited to explain the prevalence of heavy drinking in young adult veterans including (but not limited to): combat exposure, drinking motives, an3d perceived stigma (Dixon, Leen-Feldner, Ham, Feldner, & Lewis, 2009; Wright, Foran, Wood, Eckford, & McGurk, 2012). The current investigation begins with an overview of common factors linked to heavy alcohol use in veterans then expands on the existing literature by illustrating how the link between combat exposure and PTSD symptoms can lead to alcohol problems via the dual pathways of coping drinking motives and perceived stigma of treatment seeking.

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1.2. Combat exposure and PTSD

A nationally representative survey of recent US veterans found that combat related trauma was linked to PTSD in this population (Wisco et al., 2014). A meta-analytic review of risk factors for combat-related PTSD found that increased combat exposure and other severity indicators (e.g. witnessing a death) led to a greater likelihood of developing PTSD (Xue et al., 2015). Although some studies have found that potential genetic factors combine with the level of combat exposure to predict PTSD manifestation in veterans (e.g. Kimbrel et al., 2015), a longitudinal twin study of Vietnam era veterans found that the majority of PTSD related symptoms reported by combat veterans are most likely attributable solely to their combat experience (Gilbertson et al., 2010). In addition to the evidence linking combat exposure to PTSD, there is also strong evidence to suggest that combat exposure and PTSD are both linked to higher rates of alcohol use and problems in veterans (e.g., Godfrey et al., 2015; Hahn, Tirabassi, Simons, & Simons, 2015). Moreover, although US female veterans are not typically assigned combat roles, some are nonetheless exposed to combat and therefore are just as likely to evince the same link between heavy alcohol use and PTSD (Creech, Swift, Zlotnick, Taft, & Street, 2016).

1.3. Coping drinking motives

The connection between PTSD and drinking behavior has been explained in part by research on drinking motives, specifically "drinking to cope" (Lehavot, Stappenbeck, Luterek, Kaysen, & Simpson, 2014). Research on drinking motives has shown that individuals use alcohol as a means to regulate their emotions (Cooper, Frone, Russell, & Mudar, 1995) and that for some, drinking to regulate negative affect serves as a means to cope in lieu of more adaptive emotional strategies, such as engaging in goal-directed behavior (Veilleux, Skinner, Reese, & Shaver, 2014). Research, particularly in college students, supports the assertion that some young adults drink to regulate their mood. For example, researchers found that daytime negative affect predicted subsequent drinking later that night (Dvorak, Pearson, & Day, 2014), while others found that more frequent changes in mood, specifically negative moods, predicted higher general levels of drinking to cope (Gottfredson & Hussong, 2013). Drinking to cope may reinforce the belief that alcohol is effective for regulating negative affect which can further contribute to the development of an AUD (Rousseau, Irons, & Correia, 2011).

Coping motives for drinking (e.g., drinking to reduce tension, drinking to deal with problems) appear to be qualitatively different from other drinking motives, such as social motives related to drinking with friends or during celebrations, or conformity motives related to wanting to fit in with others who are drinking. Specifically, drinking to cope has been consistently linked to alcohol related problems among young people (Carey & Correia, 1997; Merrill & Read, 2010; Rafnsson, Jonsson, & Windle, 2006). Further, longitudinal work has linked drinking to cope with the subsequent development of an AUD (Carpenter & Hasin, 1998). Evidence for the complete pathway between negative affect, coping drinking motives, and alcohol related problems is strong for college students (Martens et al., 2008), adults in the community (Carpenter & Hasin, 1999), and heavy drinking veterans with and without diagnosed PTSD (McDevitt-Murphy, Fields, Monahan, & Bracken, 2015).

1.4. Help seeking stigma

Concurrently with the relationship between PTSD symptomatology and drinking motives to cope, there is the added concern of stigmatization of help seeking which is particularly prevalent in military populations (Gorman, Blow, Ames, & Reed, 2011; Kulesza, Pedersen, Corrigan, & Marshall, 2015). Exacerbating this problem is the evidence which shows that those combat veterans suffering from PTSD (i.e. those likely in need of treatment) are the most likely to perceive stigma for seeking help, such as the belief others would view them as weak if they sought care (Hoge et al., 2004), and are therefore less likely to seek help (Kim, Thomas, Wilk, Castro, & Hoge, 2010). Further, there is recent evidence to suggest that not only is the presence of a mental health or substance use disorder predictive of stigmatizing beliefs, but that such beliefs are in turn related to alcohol problems (Jones, Keeling, Thandi, & Greenberg, 2015). This corresponds with research showing that people with comorbid AUD and mood disorders (e.g., depression) perceived greater stigma towards people who have an AUD (Glass, Williams, & Bucholz, 2014). Further, in a sample of active duty military personnel, researchers found a dynamic interplay between PTSD, perceived stress, AUD, and help seeking stigma such that perceived stigma moderated the relationship between stress (strongly correlated with PTSD) and AUD (De La Rosa, Delaney, Webb-Murphy, & Johnston, 2015). Perceived stigma of help seeking is particularly complicated for young military populations; for example, by choosing to seek help, Army soldiers reported this could not only be seen by peers as a sign of weakness, but there is a perception that by choosing care, one is voluntarily leaving their unit, which could harm the unit in terms of readiness and productivity (Gibbs, Rae Olmsted, Brown, & Clinton-Sherrod, 2011).

1.5. Current study

The current investigation builds off of previous research on the relationship between PTSD and problem drinking in military veterans. The primary aim of the current study is to test the hypothesis that adverse alcohol consequences in young adult veterans can be predicted using a path analytic framework incorporating combat exposure, PTSD symptomatology, drinking motives to cope, and perceived stigma of treatment seeking. A secondary aim is to test the dual hypotheses that both drinking motives to cope and perceived stigma of treatment seeking mediate the relationship between evinced PTSD symptoms and adverse alcohol consequences.

2. Methods

2.1. Participants and procedures

Participants were recruited as part of a larger longitudinal study to test an online alcohol intervention for young adult veterans (Pedersen, Marshall, & Schell, 2016). The intervention group received feedback to correct their misperceptions of veteran peers' drinking behavior. An attention control group received feedback about the video game playing behavior of their veteran peers. Participants were recruited using a novel framework employing Facebook to reach veterans that might otherwise be missed by traditional outreach efforts. Initially, 2312 individuals clicked on Facebook links advertising the study, of which 1177 completed a screening questionnaire and signed a consent form. Participants were eligible if they were aged 18–34, a veteran from the Air Force, Army, Marine Corps, or Navy, and screened on the AUDIT (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) a minimum threshold score of "4" or greater for men and "3" or greater for women. The study utilized a screening protocol designed to validate participants' status as a veteran, such as use of validation checks to ensure items on time of service, rank, pay grade, and branch of service matched for consistency (see Pedersen, Naranjo, & Marshall, in press). After screening, the total sample for the larger study was 783. The analytic sample for the current investigation only included the participants who did not receive the intervention in the larger study (N = 312).

2.2. Measures

2.2.1. Time 1 measurement

2.2.1.1. Combat exposure scale. Combat exposure was assessed using an 11-item scale (Schell & Marshall, 2008) with items on whether or not