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The impact of alcohol use severity on anxiety treatment outcomes in a large effectiveness trial in primary care

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ABSTRACT

Objective: The presence of anxiety disorders is associated with poorer alcohol use disorder treatment outcomes, but little is known about the impact of alcohol use problems on anxiety disorder treatment outcomes despite their high comorbidity. The current study examined the impact of alcohol use symptom severity on anxiety disorder treatment outcomes in a multi-site primary care effectiveness study of anxiety disorder treatment.
Method: Data came from the Coordinated Anxiety Learning and Management (CALM) effectiveness trial. Participants ($N = 1004$) were randomized to an evidence-based anxiety intervention (including cognitive behavioral therapy and medications) or usual care in primary care. Participants completed measures of alcohol use, anxiety, and depression at baseline, 6-, 12-, and 18-month follow-up periods. Patients with alcohol dependence were excluded.
Results: There were no significant moderating (Treatment Group × Alcohol Use Severity) interactions. The majority of analyses revealed no predictive effects of alcohol use severity on outcome; however, alcohol problems at baseline were associated with somewhat higher anxiety and depression symptoms at the 18-month follow-up.
Conclusions: These data indicate that patients with alcohol problems in primary care can be effectively treated for anxiety disorders. Baseline alcohol problems were associated with some poorer long-term outcomes, but this was evident across CALM and usual care. These findings provide preliminary evidence that there may be no need to postpone treatment of anxiety disorders until alcohol problems are addressed, at least among those who have mild to moderate alcohol problems. Replication with more severe alcohol use disorders is needed.

1. Introduction

Anxiety disorders are highly prevalent in addiction treatment settings (Bakken, Landheim, & Vaglum, 2005, 2007; Brown, Stout, & Mueller, 1999; Fals-Stewart & Angarano, 1994; McGovern, Xie, Segal, Siembab, & Drake, 2006; Smith & Book, 2010). Anxiety disorder comorbidity is associated with poorer alcohol use disorder (AUD) outcomes (e.g., greater percentage of patients relapsing compared to those with no comorbid anxiety disorder; see Wolitzky-Taylor, Operskalski, Ries, Craske, & Roy-Byrne, 2011 for a review). In contrast, the effects of alcohol use problems among those seeking treatment for anxiety disorders are not well understood. The available studies sometimes report on presence of comorbid AUD but not its associated effects (Otto, Pollack, Sachs, O'Neil, & Rosenbaum, 1992). One exception found that in those

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treated for an anxiety disorder, AUDs were associated with a greater likelihood of anxiety recurrence over a follow-up period (Bruce et al., 2005). The paucity of data may be due in part to the common AUD exclusionary criteria in anxiety disorder treatment studies. In community practices, the presence of AUDs may not preclude someone from seeking treatment for anxiety disorders; yet it is unclear how alcohol use disorders affect treatment outcomes for anxiety.

Given the high comorbidity (e.g., Grant et al., 2004), clinical settings providing treatment for anxiety disorders likely have a significant proportion of patients with AUDs or alcohol use problems. Indeed, hazardous drinking estimates in primary care range from 4% to 29% (see Reid, Fiellin, & O'Connor, 1999). Estimates of AUD in primary care are lower, ranging from 3% to 14% (Adams, Barry, & Fleming, 1996; Volk, Cantor, Steinbauer, & Cass, 1997), likely due to two factors: (1) the lower prevalence overall of AUDs compared to mild–moderate alcohol problems (Archer, Grant, & Dawson, 1995; Hilton, 1987; Hingson & Zha, 2009); and (2) most patients with comorbid anxiety and AUD are more likely to receive treatment for their addiction in a substance abuse specialty clinic than for their anxiety disorder in another (e.g., primary care, mental health clinic) setting (Havassy, Alvidrez, & Mericle, 2009).

It remains unclear whether alcohol problems typically present in primary care interfere with treatment for anxiety disorders. Understanding whether alcohol use severity (AUS) in this population predicts outcomes can provide important prognostic information to clinicians. If AUS predicts poorer outcomes, identification of alcohol use problems may be important in order to make treatment decisions (Babor et al., 2007; Ziedonis, 2004).

However, if alcohol use symptoms do not affect outcomes, then individuals can seek treatment for their anxiety disorders while alcohol problems are present. Common practice typically encourages patients with comorbid substance use and mental health problems to seek addiction treatment first, a practice that may lead to untreated mental health problems (Havassy et al., 2009). Recent models suggest that treating anxiety and alcohol use disorders in an integrated approach may be preferable both from clinical (Kushner et al., 2006; Najavits, 2002; Stewart & Conrod, 2008; Wolitzky-Taylor et al., 2011) and public health perspectives, as this model is in line with recommendations from the Affordable Care Act (Barry & Huskamp, 2011; Pating, Miller, Goplerud, Martin, & Ziedonis, 2012; Patient Protection and Affordable Care Act, 2010).

The current study examines the impact of AUS on anxiety treatment outcomes in a large effectiveness trial of anxiety disorder treatment in primary care. The effectiveness trial (Coordinated Anxiety Learning and Management; CALM) was conducted in primary care and utilized clinicians with minimal mental health training. Participants were randomized to usual care (UC) or the CALM intervention, which included cognitive behavioral therapy (CBT), and medications. Given that many community providers are not likely to conduct a formal diagnostic assessment of AUD, a brief dimensional screening measure of AUS may have broader applicability to clinical practice. Thus, the current study examines whether scores on a dimensional measure of AUS predict anxiety treatment outcomes. We examined both prescriptive effects (i.e., whether AUS predicts anxiety outcomes differentially between CALM and UC) and prognostic effects (i.e., if prescriptive effects are not observed, whether AUS predict anxiety outcomes generally across conditions). Based on the limited previous research, we expected that greater AUS would be associated with poorer anxiety outcomes in both the UC and CALM arms of the study. We had no specific hypothesis about whether AUS would moderate outcomes. Thus, although we conducted a moderator analysis, our prediction was that AUS would serve as a prognostic predictor of outcome.

2. Methods

2.1. Participants

Adult primary care English or Spanish-speaking patients who met criteria for panic, social anxiety, generalized anxiety, or posttraumatic stress disorder and scored at least an 8 (moderate and clinically significant anxiety symptoms) on the Overall Anxiety Severity and Impairment Scale (OASIS; Norman, Cissell, Means-Christensen, & Stein, 2006) were recruited from clinics across four sites. Exclusion criteria included unstable medical conditions, cognitive impairment, active suicidality, bipolar I disorder, psychotic disorders, current enrollment in CBT. Alcohol and marijuana abuse (but not dependence) were permitted. Abuse and dependence of other drugs were exclusionary. The sample ($N = 1004$) was 71.2% female (mean age 43.47; SD = 13.44). Participants were 56.57% White, 19.52% Hispanic/Latino, 11.55% Black/African-American, and 12.35% other race.

In the CALM arm of the study, participants completed 7 CBT sessions on average (SD = 4.1). Of the 482 participants in the CALM arm, 166 (34%) had only CBT. A small proportion of subjects (69/482 [14%]) also had an in-person visit with the study psychiatrist. See Roy-Byrne et al. (2010) for detailed descriptions of the procedures and a flowchart of participation throughout the study. See Table 1 for information about attrition over the follow-up period.

2.2. Measures

2.2.1. Diagnostic measure

2.2.1.1. Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998). The MINI Neuropsychiatric Interview is a concise structured diagnostic interview designed to assess for psychiatric diagnoses in multicenter clinical trials (Sheehan et al., 1998). When compared with the SCID-P (Spitzer, Williams, Gibbon, & First, 1990) kappa values for the majority of the psychiatric diagnoses were .70 or above. Five of the diagnoses had kappa values between .60 and .70 (Sheehan et al., 1997). Interviewers were trained to 80% reliability before independently conducting assessments.

2.2.2. Putative predictor: alcohol use symptom measure

2.2.2.1. Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The AUDIT is a brief (10-item) gold standard alcohol use disorder screening measure that has shown excellent psychometric properties across several countries. The intraclass correlation on this measure is high (.95), and it is highly sensitive (range = .70 to .97) and specific (range = .88 to .98; Gache et al., 2005; Dybek et al., 2006). The questions assess alcohol consumption, alcohol dependence, and alcohol-related problems. AUDIT scores are typically categorized by four "Risk Zones" that indicate to providers the level of care needed at the time of screening.

Table 1
Attrition over the study.

Time-point	CALM		UC	
	Number of assessments administered	Percentage drop-out	Number of assessments administered	Percentage drop-out
Baseline	503	0.00	501	0.00
6 Months	446	11.33	430	14.17
12 Months	410	18.49	403	19.56
18 Months	409	18.69	395	21.16

Note: Includes data on the number of participants who completed assessment at baseline and each of the follow-up time-points.