ELSEVIER

Journal of Anxiety Disorders 22 (2008) 1087–1098

Journal of Anxiety Disorders

The effect of comorbid substance use disorders on treatment outcome for anxiety disorders

Peter M. McEvoy [a,*], Fiona Shand [b]

[a] *Clinical Research Unit for Anxiety and Depression, School of Psychiatry at St Vincent's Hospital, University of New South Wales, 299 Forbes Street, Darlinghurst, Sydney, NSW 2010, Australia*

[b] *National Drug and Alcohol Research Centre (NDARC), University of New South Wales, Australia*

Received 14 August 2007; received in revised form 12 November 2007; accepted 15 November 2007

Abstract

This study examined the impact of concurrent substance use disorders (SUDs) on outcomes for psychotherapy targeting anxiety disorders. Study 1 ($N = 484$) sought to determine the prevalence of SUDs in a sample referred to a community anxiety disorders clinic, as well as the impact of comorbid SUDs on outcomes for a subsample ($n = 200$) completing cognitive behavior therapy (CBT). Around one-quarter (22–29%) of patients with one or two anxiety disorders met criteria for at least one SUD, but this rate was substantially higher (46%) for patients with three anxiety disorders. Concurrent SUDs were associated with higher levels of anxiety but not depression or stress, compared to those without a SUD. However, concurrent SUDs did not moderate treatment outcomes. Study 2 ($N = 103$) focused on the impact of alcohol use on diagnosis-specific symptom measures and generic measures of distress and disability, following a course of CBT for panic disorder or social phobia. Pre-treatment alcohol use did not predict changes in panic symptoms, performance anxiety, distress, or disability, but it did predict changes in social interaction anxiety. Problem drinking per se did not have any predictive utility in terms of treatment outcome. These findings suggest that clinicians treating patients for a primary anxiety disorder and concurrent SUD can be relatively optimistic about treatment outcomes.

Keywords: Anxiety disorders; Substance use disorders; Comorbidity; Alcohol use; Treatment outcome; Cognitive behavior therapy

1. Introduction

Anxiety disorders and substance use disorders (SUDs) commonly co-occur. A U.S. National Epidemiologic Survey on Alcohol and Related Conditions (Grant et al., 2004), found that all anxiety disorders were strongly and significantly associated with substance use disorders (Odds Ratios, OR = 1.6–3.6), with around 18% of people with a SUD also having an anxiety disorder (lifetime prevalence). Amongst people with an anxiety disorder, 15% had at least one SUD. Epidemiological data from an Australian community sample (the National Survey of Mental Health and Wellbeing) also showed a strong association between alcohol use disorders and anxiety disorders (OR = 3.3, 95% CI: 2.3–4.8), with 46% of women and 25% of men with a SUD also meeting criteria for an anxiety or affective disorder (12 months prevalence; Andrews, Hall, Teesson, & Henderson, 1999; Burns & Teesson, 2002; Teesson, Hall, Lynskey, & Degenhardt, 2000).

Most research on concurrent anxiety and SUDs has focused on social phobia and panic disorder with or without agoraphobia. Social phobia is characterized by

* Corresponding author. Tel.: +61 2 8382 1729; fax: +61 2 8382 1721.
E-mail address: p.mcevoy@unsw.edu.au (P.M. McEvoy).

0887-6185/$ – see front matter
doi:10.1016/j.janxdis.2007.11.007

a fear of negative evaluation within social or performance situations (American Psychiatric Association, 1994). Clark and Wells' (1995) cognitive behavioral model of social phobia suggests four processes that maintain the disorder, one of which is the use of safety behaviors. Safety behaviors are subtle avoidance behaviors used in an attempt to prevent feared outcomes. Paradoxically, rather than preventing feared outcomes Clark and Wells suggest that the use of safety behaviors actually maintains social phobia by preventing disconfirmation of negative beliefs. For instance, a person with social phobia who always consumes alcohol prior to social encounters, because they believe they cannot cope without it, will never have the opportunity to challenge this belief. Moreover, the perceived need to use alcohol may actually be seen as further evidence of inadequacy, even if performance within the social interaction was deemed adequate. Thus, alcohol use may maintain a lack of coping self-efficacy and be a source of further negative self-appraisals. Panic disorder is characterized by recurrent uncued panic attacks and, like social phobia, cognitive models suggest that avoidance behaviors and safety behaviors can also serve to maintain core catastrophic beliefs that precipitate panic attacks (Clark, 1988; Salkovskis, 1991). Indeed, there is evidence that safety behaviors do contribute to the maintenance of anxiety disorders (Eun-Jung, 2005; McManus, Sacadura, & Clark, 2008).

Additional hypotheses for the association between anxiety disorders and substance abuse include self-medication, common underlying diatheses (genetic, environmental, and individual risk factors), and common physiological mechanisms as evidenced by similarities in the symptoms of substance abuse and anxiety (Kushner, Abrams, & Borchardt, 2000; Schuckit & Hesselbrock, 1994). The evidence supporting each of these explanations is mixed. A 21 years longitudinal study found that although young people with anxiety disorders are at increased risk of substance dependence, this association is largely non-causal and reflects common risk factors such as child abuse, exposure to family adversity, and parental psychopathology, as well as prior substance dependence, comorbid depression, and peer affiliations (Goodwin, Fergusson, & Horwood, 2004). However, a small cross-sectional study found that participants with comorbid substance use and anxiety disorders had greater substance sensitivity and were more likely to report self-medication of anxiety symptoms than those with only a SUD (Bizzarri et al., 2007). Further, social phobia and panic attacks both predict the onset of alcohol abuse and dependence (Zimmerman et al., 2004). It is likely that comorbidity between anxiety and SUDs is explained by a combination of these factors (Dadds & Atkinson, 2003).

Several studies have examined the impact of anxiety disorders on the treatment outcomes for SUDs. Two studies found that concurrent anxiety disorders and/or affective disorders increased the risk of relapse and decreased the likelihood of abstinence (Driessen et al., 2001; Kushner et al., 2005). In contrast, a study comparing alcohol dependent patients with social phobia or agoraphobia to alcohol dependent patients without a comorbid anxiety disorder found no between-group differences on relapse to heavy drinking (Marquenie et al., 2006).

A second group of studies has examined the impact of combining treatments for SUDs and comorbid anxiety disorders versus treatment for SUDs alone. Two randomized controlled trials for SUDs comorbid with agoraphobia or social phobia (Schneider et al., 2001) and panic disorder (Bowen, D'arcy, Keegan, & Senthilselvan, 2000) found no advantage for concurrent treatment for alcohol dependence and anxiety disorders over treatment for alcohol dependence alone. In a sample with comorbid alcohol dependence and social phobia, Randall, Thomas, and Thevos (2001) compared 12 weeks of individual CBT for alcohol dependence to 12 weeks of concurrent treatment for both disorders. Surprisingly, at 3-month follow-up the group receiving treatment for both disorders had worse drinking outcomes, including fewer days abstinent, a higher percentage of heavy drinking days, and higher total number of drinks consumed. Moreover, while both groups improved in terms of social anxiety and depression, these improvements were not associated with drinking outcomes. The authors speculate that individuals who have coped with social anxiety by using alcohol for a long period of time might have increased their drinking in order to cope with the exposure tasks. The use of alcohol to cope with these previously avoided tasks may have also retarded the extinction of social anxiety.

Very few studies have examined the impact of SUDs on outcomes for treatments targeting anxiety disorders, which is the focus of the studies reported in this paper. One exception is a 12-year prospective naturalistic study of patients in treatment for anxiety disorders (Bruce et al., 2005). The presence of a SUD decreased the likelihood of recovery from generalized anxiety disorder (GAD) by nearly fivefold and increased the likelihood of GAD recurrence by more than threefold. Social phobia (with or without a SUD) had the smallest