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Social anxiety impacts willingness to participate in addiction treatment

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Abstract

Individuals with social anxiety have difficulty participating in group settings. Although it makes intuitive sense that social anxiety could present a challenge in an addiction treatment setting, which often involve small groups and encouragement to participate in self-help groups like Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), to our knowledge no study has yet assessed the impact of shyness on the treatment experience. Assessment surveys were given to 110 individuals seeking intensive outpatient substance abuse treatment at three community treatment programs. Established cut-offs for presence of clinically-significant social anxiety indicated a prevalence of 37%. Controlling for depression and worry, social anxiety was a unique predictor of endorsement that shyness interfered with willingness to talk to a therapist, speak up in group therapy, attend AA/NA, and ask somebody to be a sponsor. Socially anxious substance abusers were 4-8 times more likely to endorse that shyness interfered with addiction treatment activities. These findings have clinical and research implications.

Keywords

Social anxiety; substance-related disorders; alcoholism; alcoholics anonymous; patient participation; client participation

1. Introduction

Social anxiety disorder, also known as social phobia, is commonly seen in inpatient and outpatient addiction treatment seeking populations around the world. Among inpatient samples from the United States (Lydiard, Brady, Ballenger, Howell, & Malcolm, 1992) and Brazil (Terra et al., 2006) prevalence rates of comorbid social anxiety disorder and substance abuse disorder are consistent, with approximately 25% of the sample meeting diagnostic criteria for this specific comorbidity. Among outpatient samples, in New Zealand (Adamson, Todd,

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Sellman, Huriwai, & Porter, 2006) and in the United States (Thomas, Thevos, & Randall, 1999), prevalence rates were reported to be 31% and 23.3%, respectively. Thus, in spite of the type of substance abuse treatment setting, whether inpatient or outpatient, one out of four individuals are likely to present with comorbid social anxiety disorder.

The core feature of social anxiety disorder is a fear of scrutiny in social situations, such as participating in small groups or speaking in public. Individuals either endure this fear or avoid situations that may cause it (American Psychiatric Association, 2000). Addiction treatment increasingly includes group therapies (Center for Substance Abuse Treatment, 2005), a setting that may pose particular challenges to socially anxious substance abusers. Additionally, the majority of addiction treatment programs encourage 12-Step support-group participation, such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) to augment and reinforce ongoing treatment (Magura, 2007). Such self-help support groups are characterized by public speaking at meetings and by the newcomer's self-selection of a "sponsor," a member of the group ready to help guide them in their road to sobriety. Given their specific fear of social interaction and social performance situations (e.g., public speaking) it follows that socially anxious substance abusers might have unique challenges in an addiction treatment setting and, therefore benefit less from treatment. Unfortunately, few studies have addressed the effect of social anxiety on addiction treatment.

The purpose of this study was to begin to address these speculations in a front-line intensive outpatient substance abuse treatment population. The hypothesis being tested was that socially anxious substance abusers would self-report more reluctance to participate in treatment and in 12-step groups because of their shyness, as compared to non-socially-anxious substance abusers in the same intensive outpatient treatment program (IOP).

2. Methods

2.1 Participants

All subjects recruited for this study were actively participating in three different IOPs (two, university-based; one, women-only community-based program). To reduce the impact of acute substance withdrawal on dependent measures, recruitment occurred between treatment day 14 and 28, with an inability to read English as the only exclusion criterion. All subjects gave written informed consent to participate in the protocol, approved by the Internal Review Board of Medical University of South Carolina, and were compensated \$10.

2.2. Assessment Instruments

The Leibowitz Social Anxiety Scale (LSAS) (Liebowitz, 1987) is considered the gold-standard assessment for social anxiety clinical trials (Ballenger et al., 1998). The instrument has good psychometric properties and can be either self- or clinician-administered (Fresco et al., 2001; Heimberg et al., 1999). If individuals fear most social situations, the specifier "generalized" is used and is considered to be the more severe form of the disorder. Using area under a receiver operating characteristics (ROC) curve analysis, Mennin and colleagues (Mennin, Fresco, Heimberg, Schneier, Davies, & Liebowitz, 2002) determined an optimal LSAS cutoff value of 60 to predict generalized social anxiety disorder. This cutoff was used to assign clients either to the "control" (<60) or to the "social anxiety" (≥ 60) group. The Beck Depression Inventory (BDI) (Beck, Steer, & Brown, 1996; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) has high internal consistency and test-retest reliability and was included in the battery as an index of depressive symptomatology. The Penn State Worry Questionnaire is a self-rated assessment of pathological worry designed to be used in both clinical and non-clinical populations (Meyer, Miller, Metzger, & Borkovec, 1990). This 16-item instrument taps into uncontrollable, excessive, and pathological worry. It has good psychometric properties associated with

generalized anxiety disorder (Fresco, Mennin, Heimberg, & Turk, 2003; Verkuil, Brosschot, & Thayer, 2007). The impact of shyness on willingness to participate in treatment was measured by four Likert-type items scored on a 5-point continuum (0-4) from “Not at all” to “Extremely” shown in Table 1. Although it is understood that shyness is not synonymous with social anxiety (Chavira, Stein, & Malcarne, 2002), the term “shyness” was used in this survey rather than “social anxiety” because it was more conceptually understandable.

2.3 Analyses

The effect of elevated LSAS scores on the study-specific Likert scale data was analyzed by ordinal regression (SPSS 16.0) in which the different responses were considered ordered categories. To maintain type 1 error rate at .05, alpha was set at .0125 for each test. Wald statistic was used to test the significance of social anxiety (presence vs. absence) as a predictor of each of these four treatment participation questions controlling for severity of depression (Beck Depression scores) and generalized anxiety symptoms (Penn Worry Scores). In addition, ratings were dichotomized into little or no endorsement (0 or 1) vs endorsement (2-4) of each item and a logistic regression performed with the same independent variable (elevated LSAS vs not elevated LSAS). An odds ratio from this analysis for odds of endorsement as a function of LSAS elevation is reported.

3. Results

A total of 110 subjects completed the battery of assessment items. Seven subjects (4 women) were dropped from subsequent data analysis due to incompleteness of the LSAS, resulting in a total sample of 103 individuals (73 women). Subjects with LSAS score equal to or greater than 60 are referred to as the “social anxiety” group ($N = 38$, 27 women), and those below the cut-off the “control” group ($N = 65$, 46 women). As shown in Table 2, the subjects were in their mid thirties, primarily white females who were not married or employed. Alcohol or cocaine were the primary drugs of choice. The groups did not significantly differ in any of these demographic measures, but the social anxiety group had higher depression scores and higher generalized anxiety severity scores than the control group, indicating a more psychologically compromised clinical presentation.

Analyses revealed that a presence of social anxiety significantly predicted whether a client reported that shyness interfered with his/her ability to participate in all four of the treatment related activities. The odds ratios and Wald statistics are presented in Table 3. Socially anxious substance abusers are 4-5 times as likely to endorse that shyness interfered with attending AA/NA or talking to a therapist as controls. They are 8 times as likely to report that shyness makes them reluctant to participate in group therapy or ask for an AA/NA sponsor.

4. Discussion

The results suggest that 1 out of 3 individuals enrolled in IOP addiction treatment may be suffering from current social anxiety disorder. This prevalence rate is slightly higher than the 1 out of 4 ratio reported among inpatient samples (Lydiard et al., 1992; Terra et al., 2006) and from alcoholics enrolled in a multi-site treatment trial (Thomas et al., 1999). It is consistent, however, with an outpatient sample from New Zealand (Adamson et al., 2006). The difference might be the nature of the subjects attending IOPs, but more likely it is due to including both alcohol and drug-addicted individuals in the study and using the LSAS to define the group (see Myrick & Brady, 1997; Grenyer, Williams, Swift, & Neill, 1992). These findings are the first report of the prevalence of social anxiety disorder in intensive outpatient addiction treatment programs in the United States. In addition, our results indicate that this comorbidity is also important for clinical reasons.

In agreement with other studies (e.g., Bakken, Landheim, & Vaglum, 2005; Thomas et al., 1999), socially anxious substance abusers presented with more psychopathology than non-socially anxious substance abusers in treatment. For example, our socially anxious group had significantly higher Beck Depression Scale scores and significantly higher Penn State Worry Questionnaire scores than the control group. These consistent results are not surprising since it is common for social anxiety disorder to be accompanied by other Axis I disorders (Grant et al., 2005; Kessler, Stang, Wittchen, Stein, & Walters, 1999; Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992) and indicate a more severe presentation of psychological distress in this patient population.

This is the first report to ask clients in treatment for drug addiction to self-rate the impact of their shyness on four key facets of addiction treatment (i.e., willingness to talk to their therapist about their problems; willingness to talk in group therapy, willingness to attend AA/NA meetings; willingness to ask someone to be their sponsor). The results indicate that shyness negatively impacts willingness to participate in all four of these treatment-related situations, with odds ratios ranging from 4.5-8.2.

The results of this study indicate that individuals with social anxiety are less willing to attend self-help groups and also less willing to ask someone to be a sponsor. Since affiliation with 12-step support groups like AA/NA is a predictor of good clinical outcomes (McKellar, Stewart, & Humphreys, 2003), it is tempting to speculate that individuals with social anxiety should have worse clinical outcomes in traditional treatment programs focused on 12-step treatment (Kushner, Abrams, Thurman, Hanson, Brekke, & Sletten, 2005). Prospective studies targeting socially anxious substance represent a fertile area for future research.

The results should be interpreted in light of the limitations of the study. One limitation of this study is that the diagnosis of social anxiety disorder was determined with the Liebowitz Social Anxiety Scale published cut-offs rather than with a structured clinical interview. However, a cut-off score of >60 has been shown to be associated with a clinical diagnosis of generalized social anxiety disorder (Mennin et al., 2002). Another limitation is that only attitudes of clients were measured and, although attitudes can predict behavior, no actual behavioral outcomes were measured. Finally, it would be important to be able to compare sub-population, to see if responses differed, for example, by gender, race, "drug of choice", or presence of other Axis I disorder. Future studies with larger sample sizes would be needed to elucidate those distinctions.

In summary, our results indicate a prevalence of 37% of comorbid social anxiety in front-line community substance abuse intensive outpatient treatment programs, a prevalence in general agreement with other published reports. Importantly, when compared to a group without social anxiety, our results indicate that shyness negatively impacts the client's willingness to talk to their therapist about their problems, to talk in groups, to attend self-help meetings, and to ask for a sponsor. These findings have relevance for treatment providers as well as for researchers.

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Table 1

Willingness to participate in treatment was measured by four Likert-type questions

#	Question
1	How much has shyness affected your ability to talk to your therapist about your problems?
2	How much has shyness affected your willingness to talk or “share” in group therapy?
3	How much has shyness affected your willingness to attend an AA or NA meeting?
4	How much has shyness affected your willingness to ask somebody to be your “sponsor?”

Table 2

Demographics and clinical features by anxiety group, expressed as percents or means (with standard deviations)

Variable	Social anxiety	Control	<i>p</i>
N	38	65	
<i>Demographics</i>			
Age (y) (mean(SD))	34.3 (11.7)	36.1 (12.0)	NS
Gender (% female)	71.2	70.8	NS
Marital Status (% married)	18	23	NS
Employment (% employed)	24	31	NS
Race (% white)	79	74	NS
<i>Clinical feature</i>			
LSAS (mean (SD)) (range)	88.8 (19.7) (60-134)	32.0 (18.2) (0-59)	
BDI (mean (SD))	18.8 (11.7)	13.8 (9.3)	<.05
Penn State Worry (mean (SD))	50.6 (8.8)	44.2 (9.9)	<.01
<i>Self reported primary drug of choice (%)</i>			
Alcohol	37	32	NS
Cocaine	34	29	NS
Marijuana	15	13	NS
Other	14	26	NS

Table 3

Patients with social anxiety report that “shyness” interferes with all four aspects of addiction treatment participation

Activity	Wald statistic, <i>p</i>	Odds ratio (95% CI) (0, 1) vs (2, 3, or 4)
Talk to a therapist	13.4, <i>p</i> <.001	5.29 (1.60-17.49)
Talk or “share” in group therapy	18.9, <i>p</i> <.001	8.23 (2.50-27.07)
Attend AA/NA	15.7, <i>p</i> <.001	4.52 (1.71-11.93)
Ask for an AA/NA sponsor	14.7, <i>p</i> <.001	8.20 (2.84-23.62)