The Interface

Substance Use Disorders and Borderline Personality: Common Bedfellows

by Randy A. Sansone, MD, and Lori A. Sansone, MD

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This ongoing column is dedicated to the challenging clinical interface between psychiatry and primary care—two fields that are inexorably linked.

ABSTRACT

According to the empirical literature, substance use disorders are commonly comorbid with a number of psychiatric disorders, including the personality disorders and especially borderline personality disorder. With regard to borderline personality disorder, eight studies of varying sample types (e.g., inpatient, outpatient, community) indicate prevalence rates of substance use disorders from 14 percent (current rate) to 72 percent (lifetime rate). As expected, lifetime prevalence rates of substance use disorders in borderline personality disorder exceed current and 12-month rates. In addition, in clinical samples, men with borderline personality disorder outnumber women with borderline personality disorder with regard to the presence of comorbid substance use disorders. According to the meager available literature, there is also a relationship between prescription substance abuse and borderline personality disorder. However, this relationship deviates from traditional findings with general substance abuse in that rates for women with borderline personality disorder equal rates for men with borderline personality disorder.

KEY WORDS

Alcohol, borderline personality, borderline personality disorder, drugs, substance abuse

INTRODUCTION

There appear to be meaningful clinical associations between psychiatric disorders and substance use disorders. For example, according to data from the National Comorbidity Survey Replication, Glantz et al[1] found that having any psychiatric disorder resulted in a heightened risk for substance dependence (odds ratio [OR] of 4.9, 95% confidence interval [CI]). In addition, these data indicate that the greater the number of psychiatric disorders present, the greater the risk for substance dependence. Explicitly, having no psychiatric disorder resulted in an OR for lifetime substance dependence of 1.0; having one disorder 2.7, two disorders 3.9, and three or more disorders 9.1 (95% CI).[1] Therefore, having a psychiatric disorder at all and/or having more than one psychiatric disorder appear to heighten the relative risk for lifetime substance dependence.

In addition, the various psychiatric disorders appear to demonstrate varying levels of risk. In other words, the risk for substance abuse is not equitably distributed among the psychiatric disorders in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*

(*DSM-IV*) (Table 1).[2] Importantly, the risk is relatively high among the personality disorders, a risk which is greater than that encountered in either the mood or anxiety disorders. Being the third most prevalent personality disorder in the United States, borderline personality disorder (BPD) affects 5.9 percent of the general population.[3–5] BPD is particularly suspicious for comorbid substance use disorders, especially given the associated psychodynamics of impulsivity and self-regulation difficulties. In support of this impression, Cacciola et al[6] stated that, "All of the personality disorders have been reported in patients with substance abuse, with antisocial personality generally being the most prevalent; borderline personality is typically the second most prevalent." In this edition of The Interface, we present the data on the relationship between substance use disorders and BPD.

TABLE 1. Odds ratios for having lifetime substance use disorders in several psychiatric disorders/groupings[2]

PSYCHIATRIC DISORDER/GROUPING	ODDS RATIOS FOR DRUG USE DISORDER (99% CONFIDENCE INTERVAL)
Alcohol use disorder	10.4
Nicotine dependence	5.5
Any mood disorder	3.2
Any anxiety disorder	2.6
Any personality disorder	3.6

TABLE 2. Prevalence of substance use disorders in various samples of individuals with borderline personality disorder

FIRST AUTHOR	YEAR OF PUBLICATION	SAMPLE SIZE/TYPE	PREVALENCE OF ANY SUD
Tadic[7]	2009	159 former inpatients	72.3% (lifetime)
Grant[3]	2008	2,045 community individuals	50.7% (12-month)
Johnson[8]	2003	240 individuals from the CLPDS	65.4% (lifetime)
Zlotnick[9]	2002	130 outpatients	52.3% (lifetime)
Zimmerman[10]	1999	59 outpatients	13.6% (current)
Zanarini[11]	1998	379 inpatients	64.1% (lifetime)
Oldham[12]	1995	200 inpatients and outpatients	13.5% (current)
Koenigsberg[13]	1985	304 inpatients/outpatients	22.6% (current)

Note: CLPDS: Collaborative Longitudinal Personality Disorders Study; SUD: substance use disorder

STUDIES ON THE PREVALENCE OF SUBSTANCE USE DISORDERS IN BPD

A number of studies have examined the prevalence of substance use disorders in various samples of patients with BPD. We have summarized the majority of these studies in Table 2.[3,7–13] In reviewing these data, note that the sample sizes vary from 59 to 2,045 individuals; samples consist of inpatients, outpatients, and community dwellers; and prevalence rates vary from current to one-year and lifetime rates.

To summarize these data, the overall rates of substance use disorders in these samples vary from 14 to 72 percent. However, the averaged percentage (i.e., the sum of the eight percentages divided by eight) is 44.3 percent, indicating that close to half of the individuals with BPD in these studies have substance-use-disorder histories. In examining the table, note that the studies with the three lowest percentages assessed current substance usage, whereas the four studies with the highest percentages assessed lifetime rates of substance usage. The summation of the percentages from the three studies of current rates divided by 3 is 16.6 percent—a somewhat modest rate. However, the summation of the percentages from the four studies of lifetime rates divided by 4 results in an averaged rate of 63.5 percent, clearly indicating that comorbid lifetime substance use disorders in BPD affects nearly two-thirds of these individuals.

GENDER AND SUBSTANCE USE DISORDERS IN BPD

A number of studies have examined gender patterns with regard to comorbid Axis I disorders in BPD, including substance use disorders. In reviewing these findings, Zanarini et al[11] found that substance use disorders were significantly more common in men inpatients with BPD

TABLE 3. Gender differences with regard to 12-month substance-use-disorder diagnoses and borderline personality disorder (N=2,045)[3] in a community sample

SUBSTANCE USE DISORDER	% MEN WITH BPD	% WOMEN WITH BPD
Any substance use disorder	12.2	16.9
Any substance abuse	10.6	14.6
Any substance dependence	23.4	29.8
Any alcohol use disorder	13.6	17.6
Alcohol abuse	6.6	7.6
Alcohol dependence	22.6	27.6
Any drug use disorder	28.3	39.5
Any drug abuse	22.8	34.9
Any drug dependence	42.7	50.5
Nicotine dependence	13.6	17.6

BPD: borderline personality disorder

compared to women inpatients with BPD. Zlotnick et al[9] found the same relationship among outpatients—that substance use disorders were more common in men with BPD than women with BPD. In keeping with the preceding findings, Johnson et al[8] also reported that substance use disorders were more common in men outpatients with BPD than women outpatients with BPD. These were also the conclusions of Tadic et al[7] in examining former inpatients with BPD, particularly with regard to a higher rate of alcohol dependence in men.

In contrast to the preceding findings, Grant et al[3] found that the rates of substance use disorders among community dwellers with BPD were comparable between the genders (Table 3). In fact, note that in Table 3, women appear to demonstrate consistently higher percentages of substance use diagnoses than men in all categories.

How can one interpret these seemingly conflicting data? Importantly, the Grant study was undertaken in a community sample. The other studies consisted of clinical samples. So, we might interpret that in the general community, substance use disorders are relatively equal between men with BPD and women with BPD. However, in treatment samples, men are over-represented—perhaps because they experience more severe substance use difficulties than women.

PRESCRIPTION SUBSTANCE ABUSE AND BPD

Is the association between substance use disorders and BPD echoed in studies of prescription substance abuse and BPD? While there is very little available data, in a study published in 2010 that was based upon a sample of 419 consecutive internal medicine outpatients, we found that the prevalence of self-reported prescription substance abuse was 9.2 percent.[14] Participants who acknowledged prescription substance abuse in this study were significantly more likely to suffer from BPD, according to two self-report measures for this Axis II disorder. Likewise, in a large psychiatric sample consisting of four individual subsamples (N=440) and an internal medicine sample consisting of several subsamples as well (N=332), 46.9 percent and 11.5 percent of participants with BPD, respectively, reported prescription substance abuse.[15] These findings strongly suggest links between prescription substance abuse and BPD.

In a subsequent study, we examined gender patterns with regard to prescription substance abuse and BPD and found comparable rates between men and women.[16] These latter findings echo those of Grant et al.[3] However, there is one relevant difference in these identical findings—Grant et al examined a community sample, whereas the preceding study on prescription substance abuse and gender was conducted in a clinical sample. This observation may represent an interesting and important deviation in the clinical literature. It may be that in clinical samples, men outnumber women with regard to general substance use disorders because they may experience more severe substance-use related symptoms. In contrast, rates of prescription substance abuse appear to be relatively comparable between the sexes in clinical samples, perhaps because women find prescription substance abuse more "acceptable" as well as more socially accessible.

CONCLUSION

There appear to be clear linkages between substance use disorders and various psychiatric disorders, including personality disorders and especially BPD. A number of studies have examined relationships between substance use disorders and BPD, with comorbidity ranging from 14 to

72 percent. Prevalence rates are lowest for assessment of current use and highest for lifetime use. In clinical populations, men consistently outnumber women with regard to substance-use comorbidity. In addition to general substance use disorders, prescription substance abuse also appears to be associated with BPD. However, in this form of substance abuse, rates for women appear to be equal to rates for men. Being aware of the links between substance use disorders, including prescription substance abuse, and BPD will hopefully guide both psychiatric and primary care clinicians in their assessment and treatment of these complex Axis II patients.

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AUTHOR AFFILIATIONS: Dr. R. Sansone is a professor in the Departments of Psychiatry and Internal Medicine at Wright State University School of Medicine in Dayton, Ohio, and Director of Psychiatry Education at Kettering Medical Center in Kettering, Ohio; Dr. L. Sansone is a family medicine physician (civilian) and Medical Director, Family Health Clinic, Wright-Patterson Medical Center in WPAFB, Ohio. The views and opinions expressed in this column are those of the authors and do not reflect the official policy or position of the United States Air Force, Department of Defense, or US government.

ADDRESS CORRESPONDENCE TO:
Randy A. Sansone, MD, Sycamore Primary Care Center, 2115 Leiter Road, Miamisburg, OH 45342; Phone: (937) 384-6850; Fax: (937) 384-6938; E-mail: randy.sansone@khnetwork.org.