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Sexual behaviour and borderline personality disorder among female psychiatric inpatients

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Abstract

Objective. The objective of the present study was to explore various facets of sexual behaviour in those with borderline personality disorder (BPD). *Method.* Using a cross-sectional approach and a sample of convenience, we surveyed 126 female psychiatric inpatients regarding their sexual histories as well as BPD symptoms on two self-report measures. *Results.* Compared to participants who were not positive on both measures of BPD (the nonBPD group; $n = 52$), those who were positive on both measures (the BPD group; $n = 70$) reported a greater number of sexual partners, and were more likely to report having been raped by a stranger and having been coerced to have sex. There were no between-group differences with regard to age at menarche, age of first intercourse, total number of times treated for a sexually transmitted disease, having experienced date rape or rape by a partner, or having had homosexual experiences. *Conclusions.* The psychological themes associated with the positive findings in this study appear to reflect both impulsivity and victimization – psychological themes that are evident in other behaviours in those with BPD.

Key Words: *Borderline personality; borderline personality disorder; sexuality; sex; Self-Harm Inventory*

Introduction

Borderline personality disorder (BPD) is a Axis II phenomenon that is characterized by impulsivity [1]. According to the Diagnostic and statistical manual of mental disorders, 4th ed. (DSM-IV) [1], impulsivity in individuals with BPD may manifest in a variety of venues including spending, sex, substance abuse, reckless driving, and binge eating. While impulsivity with regard to sexual behaviour is identified in the DSM-IV, there is surprisingly limited empirical data on the relationship between BPD and sexual impulsivity.

With regard to published case reports, Pelsser [2] and O'Boyle [3] both described individuals with BPD who demonstrated sexual promiscuity. As for empirical investigations, Lavan and Johnson [4] examined a sample of 403 male and female adolescents in a primary care setting and found that elevations in *general* personality pathology predicted high-risk sexual behaviours during the preceding year. In a Canadian study, Allan [5] classified 71 women as "low risk" versus "high risk" according to sexual behaviour; those in the high-risk subsample were significantly more likely to be diagnosed with BPD. Hull et al. [6] examined 71 hospitalized women with BPD and found that 46% reported engaging in sexual relationships with partners that they did not know well. Miller and colleagues [7] found that among those with BPD, comorbid substance abuse was associated with promiscuity. Finally, Hurlburt and colleagues [8] compared 32 women with and without BPD, and found that the borderline subsample had higher levels of sexual assertiveness, greater erotophilic attitudes, higher sexual esteem, and greater sexual preoccupation, sexual depression, and sexual dissatisfaction. The preceding data suggest that, compared to non-BPD individuals, those with BPD are more likely to engage in high-risk sexual behaviours, enter into casual sexual relationships, evidence promiscuity in the presence of comorbid substance abuse, and report greater sexual preoccupation.

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We have also previously studied the relationship between BPD and various sexual behaviours. In a 2008 study, we examined 76 women in an internal medicine clinic regarding their sexual histories (e.g., age of first intercourse, number of different lifetime sexual partners, homosexual experiences, history of rape) [9]. We found two statistically significant relationships: (1) individuals with BPD reported earlier sexual experiences and (2) individuals with BPD reported a greater likelihood of date rape. In a 2009 study, we analyzed a compilation of 12 of our previous databases ($N = 972$) of both psychiatric and non-psychiatric patients, and found that compared to nonBPD patients, participants with BPD were *twice* as likely to endorse casual sexual relationships as well as promiscuity [10]. Finally, in a third study, we examined a consecutive sample of 354 internal medicine outpatients and found that using either of two BPD measures in this study, participants with this Axis II disorder reported approximately *twice* the number of sexual partners compared to those without BPD [11]. Collectively, compared to individuals without BPD, our studies suggest that individuals with BPD are more likely to have sexual experiences at an earlier age, experience a greater likelihood of date rape, engage in more casual sexual relationships, report promiscuity, and have a greater number of different sexual partners.

In the following study, we examined similar as well as additional facets of participants' sexual behaviour as a function of BPD status in a sample of female psychiatric inpatients.

Method

Participants

Participants were female psychiatric inpatients, ages 18 years or older, who were hospitalized in the psychiatric ward of a suburban hospital in a medium-sized, Midwest city. Both residents and faculty in the Department of Psychiatry are the treatment providers in this setting. The sample was cross-sectional in nature and one of convenience. Exclusion criteria were cognitive (e.g., dementia), medical (e.g., pain), intellectual, and/or psychiatric impairment (e.g., psychosis) that would preclude the successful completion of a research booklet. A total of 154 inpatients were approached; 126 agreed to participate, for a response rate of 81.8%.

The working sample for this study consisted of 126 women whom ranged in age from 18 to 74 years ($M = 34.84$, $SD = 12.19$). Most respondents were White (81.0%), followed by African-American (10.3%), Native American (5.6%), Hispanic (1.6%), and "Other" (0.8%). One respondent failed to indicate race/ethnicity. As for the highest education attained, seven respondents failed to indicate this information. Of those who did, 15.1% had not graduated high school (US average = 13.3% [12]), 24.4% had earned at least a 4-year college degree (US average = 18.9% [12]), and 5.9% had earned a graduate degree (US average = 10.6% [12]).

Procedure

During the routine work day at the study site, one of the investigators (JWC) solicited candidates for the study as time allowed. Upon review of the purpose of the study, including potential risks and benefits, participants were asked to complete a six-page research booklet, which took about 15 min. The cover page of the research booklet contained the various elements of informed consent and completion of the research booklet was assumed to be implied consent.

The research booklet initially unfolded with queries about demographic information (i.e. age, race, highest level of completed education). The second section of the research booklet explored several sexual behaviours (i.e. promiscuity, number of different lifetime sexual partners, rape by a stranger, rape by a date, rape by a partner, coerced sex, homosexual experiences, treatment for a sexually transmitted disease). The final section of the research booklet explored BPD using two self-report measures:

Borderline Personality Scale of the Personality Diagnostic Questionnaire-4 (PDQ-4). The borderline personality scale of the PDQ-4 [13] is a nine-item, true/false, self-report measure that consists of the diagnostic criteria for BPD that are listed in the Diagnostic and statistical manual of mental disorders, 4th ed. (DSM-IV) [1]. A score of 5 or higher is highly suggestive of BPD. Previous versions of the PDQ have been found to be useful screening tools for BPD in both clinical [14,15] and nonclinical settings [16], including the use of the freestanding borderline personality scale [17]. In this study, Cronbach's α for the PDQ-4 was 0.69.

Self-Harm Inventory (SHI). The SHI [18] is a 22-item, yes/no, self-report inventory for BPD that explores participants' lifetime histories of self-harm behaviour. Each item in the inventory is preceded by the statement, "Have you ever intentionally, or on purpose, …" and items include, "overdosed", "cut yourself on purpose", "burned yourself on purpose" and "hit yourself". Each endorsement is in the pathological direction and the SHI total score is the summation of "yes" responses. SHI total scores of 5 or higher are highly suggestive of the diagnosis of BPD. Indeed, in comparison with the Diagnostic Interview for Borderlines [19], the gold standard for the diagnosis of BPD

in research settings, the SHI demonstrates an accuracy in diagnosis of 84% [17]. In this study, Cronbach's alpha for the SHI was 0.88.

This project was approved by the Institutional Review Boards of both the hospital site as well as the university.

Results

The reported age at first sexual intercourse ranged from 6 to 28 years, with five respondents indicating that they had not yet experienced sexual intercourse. Sixteen respondents indicated an age at first intercourse that was younger than 13 years, and all 16 also reported on a separate item having experienced childhood sexual abuse. Because it is likely that at least some of these 16 respondents were indicating the age at which they were abused, we deleted the age at first intercourse for these 16 respondents.

With regard to the total number of different sexual partners, responses ranged from 0 to 240 (M = 16.82, SD = 28.84). Because we did not want extreme outliers to overly influence results, we truncated the total number of sexual partners at 50 (i.e. seven respondents with values greater than 50 were assigned the value 50). The result was a range of 0 to 50 partners (M = 13.46, SD = 13.98).

With regard to scores on the PDQ-4 and the SHI, 34 respondents did not exceed the clinical cut-off score on either measure, 12 exceeded the cut-off score on the SHI but not the PDQ-4, 6 exceeded the cut-off score on the PDQ-4 but not the SHI, and 70 respondents exceeded the cut-off score on *both* measures of BPD. For comparisons pertaining to sexual experiences, we compared those respondents who exceeded the cut-off scores on *both* BPD measures (i.e. the BPD group; $n = 70$) to those who did not exceed the cut-off on both measures (the nonBPD group; $n = 52$). This tactic was undertaken to reduce the risk of false positives and to develop reasonable subsamples for comparison. The results of these comparisons are presented in Table I. Note that the BPD and nonBPD groups did not differ with regard to current age, age at menarche, first sexual intercourse, number of times treated for a sexually transmitted disease, date rape, or rape by a partner, but the BPD group did report a greater number of different sexual partners, greater likelihood of having been raped by a stranger, and greater likelihood of having been coerced to have sex.

Discussion

In this female psychiatric sample, the behavioural finding of a greater number of different sexual partners among those with BPD echoes the findings of earlier studies [7,10,11]. However, the two additional findings in this study were that the BPD cohort was more likely to report: (1) having been raped by a stranger and (2) being coerced to have sex. These latter findings may be explained, in part, by the findings of Zanarini and colleagues, who reported that patients with BPD are more likely than other Axis II controls to experience sexual aggression in adulthood including having a physically abusive partner, being raped, being raped by a partner, and among females, being sexually assaulted as adults [20]. Our findings and those of Zanarini and colleagues appear to be reflecting

Table I. Comparisons between respondents who did not exceed cut-off scores on both measures of borderline personality disorder (nonBPD group, n = 52) and those who did (BPD group, n = 70).

Sexuality-related variable	Did not exceed both BPD cut-off scores	Exceeded both BPD cut-off scores		
	Mean (SD)	Mean (SD)	t(df)	$P <$
Age	35.54 (13.54)	33.48 (10.38)	−0.91 (1,109)	0.37
Age at menarche	12.92 (1.86)	12.54 (1.88)	−1.11 (1,119)	0.28
Age at first sexual intercourse	16.41 (2.17)	15.96 (2.60)	−0.93 (1,99)	0.36
Total number of different sexual partners	10.07 (12.03)	16.14 (14.85)	2.27 (1,108)	0.03
Total number of times treated for a sexually transmitted disease	0.63 (1.01)	1.01 (1.50)	1.59 (1,117)	0.12
	%	%	x^2	$P <$
Ever been raped by a stranger	15.4	35.7	6.25	0.02
Ever been raped during a date	17.3	22.9	1.12	0.58
Ever been raped by a partner	23.1	34.3	1.80	0.18
Ever been coerced to have sex	21.1	47.7	8.84	0.01
Ever had sexual experience with a woman	25.0	41.4	3.57	0.06

the aggressive elements in the sexual experiences encountered in many adults with BPD.

In our experience in studying sexual behaviour in individuals with BPD, one important variable that appears to significantly temper findings is the nature of the comparison group. For example, in this study in which we compared *psychiatric inpatients* with and without BPD, many in the comparison group may have been likely to have experienced chaotic sexual behaviour due to other types of psychiatric illness (e.g., schizophrenia, bipolar disorder). Therefore, potential differences that might emerge were possibly washed out by an unusual comparison group.

The impressively high rates of BPD encountered among the participants in this study may be explained by the locale of the study – an inpatient psychiatric setting. Admissions in this setting are frequently precipitated by self-harm behaviour, including suicide attempts, which tends to diagnostically bias for admission of individuals with this Axis II disorder.

In summarizing the current literature, including our own findings, the sexual history of the patient with BPD seems to be potentially characterized by promiscuity, a greater number of different sexual partners, high-risk sexual behaviour (e.g., unprotected sexual relationships), a greater number of casual sexual partners, earlier sexual exposure, and sexual victimization (e.g., greater likelihood of date rape, being raped by a stranger, and being coerced into having sex). Collectively, these behaviours reflect both impulsivity (the former behaviours) and victimization (the latter behaviours). Indeed, these specific sexual themes appear to echo the typical psychological themes encountered with other types of behaviours (e.g., substance abuse, eating pathology, difficulty regulating monies) in those with BPD.

In terms of the practicing clinician, these data provide further relevant areas to explore in the borderline patient's sexual history. In turn, patient endorsements in these particular areas potentially guide areas for intervention. For example, the discovery of a history of multiple sexual partners may indicate the need for primary-care referral, and testing for and treatment of various sexually transmitted diseases. Additional considerations might include the importance of preventative healthcare with regard to sexual health as well as pregnancy (e.g., birth control). The elicitation of a history of rape may guide the clinician towards an evaluation for comorbid post-traumatic stress disorder and specialized treatment for this comorbidity. The uncovering of coercive sexual relationships may direct psychotherapeutic work around partner choice, boundaries and limits, and the dynamics of victimization.

This study has a number of potential limitations. First, all data were self-report in nature and subject to the inherent limitations of this type of data collection. Second, the two measures for BPD in this study are both known to be over-inclusive (i.e., a risk of false positives). Third, the sample was one of convenience rather than a consecutive sample. In contrast to consecutive samples in which every successive individual is approached for recruitment, individuals in samples of convenience are recruited as time allows. With samples of convenience, there is always the possibility of sampling bias, which entails unintentionally recruiting particular types of patients into a study. In this study, for example, the recruiter could have unintentionally enrolled those patients who were particularly dysfunctional. In such a case, our findings would be representative of a highly disordered BPD population rather than a general inpatient sample of such patients. Fourth, inpatients with BPD may not necessarily share the same clinical characteristics as outpatients with BPD (e.g., suicide histories). Therefore, these inpatient findings cannot necessarily be generalized to outpatient populations of patients with BPD. Fifth, we do not know if the higher number of sexual partners reported by those with BPD was attributable to rape or coerced sex. Sixth, we are unable to provide a psychiatric profile for the nonBPD group.

As for strengths of this study, to eliminate false positives, the analyses were conducted such that those with BPD were required to score positively on *both* measures for this disorder. In addition, the number of explored sexual behaviours was broader than many previous studies. To conclude, the findings of this study add to our current knowledge about the sexual behaviour of patients with BPD, particularly with regard to victimization experiences. In general, patients with BPD appear to exhibit sexual behaviour that is both impulsive and potentially victimizing – dynamics that all clinicians need to be aware of in their treatment of these challenging patients.

Key points

- Compared to female psychiatric inpatients without borderline personality disorder (BPD), those with BPD report higher a number of sexual partners, and a greater likelihood of being raped by a stranger, and/or a greater frequency of being coerced into having sex
- According to the findings in this study, there are no differences between women psychiatric inpatients with and without BPD with regard to age of first intercourse, total number of times treated for a sexually transmitted disease, having experienced date rape or rape by a partner, or having had homosexual experiences
- The psychological themes observed in the sexual behaviour of patients with BPD echo the

psychological themes encountered in other behaviours observed in this disorder – i.e. impulsivity and victimization

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Statement of interest

None to declare.

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