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The Relationship Between Borderline Personality Symptomatology and Somatic Preoccupation Among Internal Medicine Outpatients

Randy A. Sansone, M.D.; Nighat A. Tahir, M.D.; Victoria R. Buckner, D.O.; and Michael W. Wiederman, Ph.D.

Objective: In this study, we examined the relationship between borderline personality symptomatology and somatic preoccupation among a sample of internal medicine outpatients.

Method: Using a cross-sectional approach and a sample of convenience, we surveyed 116 patients who presented for nonemergent medical care in an outpatient resident clinic between September 2005 and August 2007. Survey measures for borderline personality disorder (BPD) were the Personality Diagnostic Questionnaire-4 (PDQ-4) (DSM-IV criteria) and the Self-Harm Inventory (SHI), both self-report measures. The study measure for somatic preoccupation was the Bradford Somatic Inventory, also self-report in format.

Results: In this study sample, both measures of BPD demonstrated significant correlations with the measure of somatic preoccupation (PDQ-4, $r = 0.58$, $p < .001$; SHI, $r = 0.53$, $p < .001$).

Conclusion: In primary care settings, patients with high levels of somatic preoccupation should be evaluated for borderline personality symptomatology.

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Received Dec. 3, 2007; accepted Jan. 7, 2008. *From the Departments of Psychiatry and Internal Medicine, Wright State University School of Medicine, Dayton, Ohio (Dr. Sansone); the Departments of Psychiatry Education (Dr. Sansone) and Internal Medicine (Drs. Tahir and Buckner), Kettering Medical Center, Kettering, Ohio; and the Department of Human Relations, Columbia College, Columbia, S.C. (Dr. Wiederman).*

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Corresponding author and reprints: Randy A. Sansone, M.D., Sycamore Primary Care Center, 2115 Leiter Rd., Miamisburg, OH 45342 (e-mail: Randy.sansone@khnetwork.org).

Borderline personality disorder (BPD) is a complex Axis II phenomenon that is characterized by (1) a transiently intact social facade, (2) chronic self-regulation problems, and (3) repetitive self-harm behavior. In psychiatric settings, individuals with BPD may manifest self-regulation difficulties in the areas of eating pathology, alcohol and substance abuse/dependence, promiscuity, and mood lability. Likewise, individuals with BPD in psychiatric settings may manifest a variety of self-harm behaviors such as self-mutilation, repetitive suicide gestures/attempts, abuse by an intimate partner,[1,2] and high-risk behaviors. Regardless of the various symptom permutations, patients with BPD tend to exhibit prolific psychiatric symptoms. As a result of prolific psychiatric symptomatology, patients with BPD tend to have multiple comorbid psychiatric diagnoses, both on Axis I and II—a finding that has been observed in a number of studies.[3–6]

In primary care settings, patients with BPD may exhibit the traditional clinical presentations that are observed in psychiatric settings (e.g., suicide attempts, abuse by an intimate partner), including multiple psychiatric diagnoses. However, in addition, preliminary research indicates that some patients with BPD may manifest diffuse somatic symptomatology in primary care settings. Like the symptoms encountered in psychiatric settings, the somatic symptoms encountered in patients with BPD in primary care settings appear to be prolific. Indeed, available studies, which are few in number, support the notion that in primary care settings, patients with BPD may manifest multiple somatic complaints that are medically characterized as somatic preoccupation,[7] chronic pain syndromes,[8] and bona fide somatization disorder.[5,9]

With regard to BPD and somatic preoccupation in medical settings, there has only been 1 study to date.[7] In this cross-sectional study, using a sample of convenience, we examined 120 outpatients in an internal medicine setting. The correlation coefficient between borderline personality symptomatology as measured by the Personality Diagnostic Questionnaire-Revised (PDQ-R),[10] a self-report version of the diagnostic criteria for BPD that are listed in the *Diagnostic and Statistical Manual of Mental*

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Take-Home Points

- Patients with borderline personality disorder evidence prolific symptoms, both psychological and somatic.
- In this study, 2 different measures indicated that borderline personality symptomatology is associated with somatic preoccupation.
- Prolific somatic symptoms may relate to the patient's unconscious engenderment of the role of victim.

Disorders, Third Edition, Revised (DSM-III-R),[11] and somatic preoccupation as measured by the Bradford Somatic Inventory[12] was r = 0.43 (p < .01). However, in this study, we used a single brief self-report measure for BPD. One potential limitation of this previous study is that self-report measures for personality disorder assessment tend to be diagnostically overinclusive.[13] In addition, participants were diagnosed through criteria from an older version of the DSM.

In the present study, we elected to expand upon our earlier work by (1) examining a second sample of internal medicine outpatients in an effort to replicate a relationship between borderline personality symptomatology and somatic preoccupation and (2) utilizing 2 measures of BPD to enhance diagnostic latitude, one of which is the latest version of the PDQ.

METHOD

Using a cross-sectional approach in a sample of patients from an internal medicine outpatient setting, we assessed participants for borderline personality symptomatology using 2 self-report measures and for somatic preoccupation using 1 self-report measure. This project was approved by the institutional review boards of both Kettering Medical Center and Wright State University.

Participants

Participants in this study were male and female outpatients, aged 18 years or older, who were being seen for nonemergent medical care in an outpatient internal medicine setting that is located in a midwestern, medium-sized city. Recruitment was undertaken by 2 residents in the Department of Internal Medicine, which is sponsored by a community hospital. The sample was one of convenience. Exclusion criteria, which were determined by the recruiters, were cognitive, medical, or psychiatric impairment that would preclude the successful completion of a survey.

A total of 121 patients were approached to explore their willingness to participate in this study between September 2005 and August 2007; 116 agreed to participate, for a response rate of 95.9%. Of the 116 respondents, 38 were men and 78 were women. The sample ranged in age from 18 to 87 years (mean = 43.16, SD = 14.6 years). Most respondents (84.4%) were white; 7.8% were African American, 2.6% were Hispanic, 1.7% were Asian, and 3.4% were classified as "other." Most respondents were either currently married (36.5%), separated/divorced (40.0%), or widowed (6.1%); only 17.4% were never married. The large majority of respondents (91.3%) had at least graduated from high school; 14.8% had a college degree.

Procedure

At the time of service, 2 resident primary-care providers recruited patient participants from their clinical caseloads. Following recruitment, each participant completed a 6-page research booklet. The cover page of the research booklet contained the various elements of informed consent, and completion of the booklet was assumed to function as informed consent.

The content of the research booklet consisted of a demographic inquiry (i.e., sex, age, racial/ethnic derivation, marital status, highest level of completed education), 2 measures of BPD (i.e., the borderline personality scale of the PDQ-4[14] and the Self-Harm Inventory [SHI][15]), and a measure of somatic preoccupation (the Bradford Somatic Inventory[12]).

Personality Diagnostic Questionnaire-4. The PDQ-4[14] is a 9-item, true/false, self-report measure that consists of the diagnostic criteria for BPD that are listed in the DSM-IV.[16] A score of 5 or higher is highly suggestive of the diagnosis of BPD. Earlier versions of the PDQ have been confirmed as useful screening tools for BPD in both clinical[17,18] and nonclinical samples,[19] including the use of the free-standing BPD scale.[20] For example, in one study, the agreement between clinicians' diagnoses and the PDQ was $\kappa = 0.46$ and r = 0.51.[18]

Self-Harm Inventory. The SHI[15] is a 22-item, yes/no, self-report questionnaire that explores respondents' histories of self-harm behavior. Items are preceded by the question, "Have you ever intentionally, or on purpose,…" and include, "overdosed," "cut yourself," "burned yourself," "hit yourself," and "banged your head." Each yes response is a pathologic endorsement. The SHI total score is the summation of positive endorsements, with scores of 5 or higher being highly suggestive of the diagnosis of

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Table 1. Bradford Somatic Inventory Scores of Internal Medicine Outpatients (N = 116) as a Function of Having Exceeded the Clinical Cutoff Score on Measures for Borderline Personality Disorder (BPD)

	Exceeded BPD Cutoff Score		Did Not Exceed BPD Cutoff Score			
BPD Measure	Mean	SD	Mean	SD	F	p Value
PDQ-4	39.14	20.76	17.76	14.85	35.10	< .001
SHI	36.45	21.21	18.41	15.15	24.48	< .001
Both PDQ and SHI	45.00	20.35	18.97	15.40	40.17	< .001

Abbreviations: PDQ-4 = Personality Diagnostic Questionnaire-4,[14] SHI = Self-Harm Inventory.[15]

BPD. In comparison with the Diagnostic Interview for Borderlines,[21] the SHI demonstrates an accuracy in diagnosis of 84%.[15] We are not aware of any data regarding the reliability of this measure.

***Bradford Somatic Inventory*.** The Bradford Somatic Inventory[12] is a 46-item, self-report, yes/no questionnaire that consists of the somatic items most frequently endorsed by anxious and depressed patients. Two items, which relate solely to male respondents, were deleted due to their lack of applicability in a mixed-gender, U.S. medical setting, leaving a total of 44 items. Scores are based on the total number of items endorsed and represent an overall somatic profile or measure of somatic preoccupation. The Bradford Somatic Inventory is reported to have good internal reliability.[22]

Following the completion of the research booklets, participants were instructed to place them into envelopes and to seal the envelopes. The sealed envelopes were then given to the resident provider, a nursing staff member, or checkout staff for storage and subsequent statistical analysis. Subjects were not reimbursed for their participation in this project.

RESULTS

As expected, SHI scores and PDQ-4 scores were strongly correlated with each other ($r = 0.71$, $p < .001$). Age was correlated with PDQ-4 scores ($r = –0.31$, $p < .001$), but not with SHI scores ($r = –0.17$, $p = .07$) or scores on the Bradford Somatic Inventory ($r = 0.05$, $p = .62$). Scores on the Bradford Somatic Inventory were correlated with both PDQ-4 scores ($r = 0.58$, $p < .001$) and SHI scores ($r = 0.53$, $p < .001$).

Using a categorical approach, we determined the proportions of respondents who exceeded the clinical cutoff score for BPD on the PDQ-4 (25.4%), the SHI (26.3%), or both (16.7%). Scores on the Bradford Somatic Inventory as a function of BPD status are presented in Table 1. Note that patients who exceeded cutoff scores on the measures of BPD had scores on the Bradford Somatic Inventory that were at least twice that of patients who did not exceed cutoff scores on the measures of BPD.

DISCUSSION

Our findings indicate that, in primary care settings, increasing scores on the measures for borderline personality symptomatology correlated with increasing scores on the measure of somatic preoccupation. This finding suggests that individuals with BPD features who present for primary care services are more likely to report a higher number of somatic complaints (i.e., evidence somatic preoccupation). In this study, this finding was confirmed with *both* measures of BPD, singly and jointly. So, in support of our previous study of this clinical relationship,[7] both measures of BPD evidenced statistically significant correlations with somatic preoccupation.

From a broader clinical perspective, these findings strongly suggest that, as in psychiatric settings, individuals with BPD in medical settings are likely to demonstrate prolific symptoms, including various somatic symptoms. Therefore, clinicians in these settings need to recognize that highly somatic patients are at risk for diagnoses of BPD.

What might explain the presence of prolific symptoms, either psychiatric or somatic, in BPD? We have previously theorized that one fundamental dynamic in the prolific symptom generation encountered in BPD is the role of victimization.[23] To clarify, Kroll[24] emphasizes the crucial importance of ongoing victimization in the adulthoods of individuals with BPD. Indeed, he described victimhood as a "basic theme in understanding borderlines"[(p46)] and emphasized how borderline individuals engage others to "act upon [them], usually in a negative, rejecting, or aggressive way, *but sometimes in a caretaking…way* [emphasis added]." Kroll explained that by portraying helplessness and incompetence, borderline individuals remain "infantilized" and "dependent" on others.[(p51)] So, it may be that prolific somatic symptoms facilitate the individual's ability to engage with others, particularly health care professionals.

In an effort to maintain a victim position, such individuals may, out of necessity, generate multiple symptoms, both psychiatric and somatic, to justify their ongoing contact with professionals. In health care settings, such symptoms tend to result in multiple visits, multiple diagnoses, thick medical records, and multiple medications—in summary, the overutilization of health care resources. We have empirically confirmed health care overutilization in medical settings among patients with BPD in previous studies.[25,26]

On a side note, from these data, we cannot determine whether the acknowledged somatic symptoms are consciously generated or not. If consciously generated, the presenting somatic syndrome might represent malingering or factitious disorder. If unconsciously generated, the syndrome might represent conversion disorder or somatization disorder. Regardless, note that these psychiatric

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diagnoses do not exclude the diagnosis of BPD. For example, with regard to factitious disorder, a number of authors have indicated high levels of comorbidity with BPD[27–30] (e.g., Goldstein found that 58% of patients with the diagnosis of factitious disorder met the criteria for BPD[28]). As for somatization disorder, investigators have also encountered frequent comorbidity with BPD.[9,31] Clearly, the interrelationship of these Axis I disorders with BPD warrants further investigation.

This study has a number of potential limitations. First, the sample was one of convenience. Unfortunately, in busy medical clinics, the use of a naturalistic approach compromises the ability to obtain a randomized sample. However, because of the clinical demands on recruiters, we do not believe that there was any underlying selection bias. Yet, it is possible that bias may have unintentionally occurred (e.g., recruiters may have selected somatic patients with obvious psychological disturbances). If so, the relationship between borderline personality symptomatology and somatic preoccupation would have been artificially inflated from a statistical perspective.

Second, all measures in this study were self-report in nature and subject to the inherent limitations of such measures. For example, there was no confirmation of symptoms in the medical record. Third, the self-report measures for BPD that were used in this study tend to be overinclusive. Note that the rates for BPD in this sample were unexpectedly high. While these rates are similar in percentage to those that we have encountered in other studies with different samples from this population, participants may be overendorsing items and/or the measures may be detecting a number of individuals with soft BPD psychopathology (i.e., those with subthreshold or subclinical syndromes). Future studies might employ interviews for the diagnosis of BPD.

To summarize, this study provides further evidence of a relationship, in medical settings, between borderline personality symptomatology and excessive somatic symptoms. This finding is not only relevant for psychiatrists, but also for primary care physicians, who struggle with highly somatic patients and describe them as "difficult patients." It may be that the difficult patient is, in fact, a patient with BPD and somatic preoccupation.

Disclosure of off-label usage: The authors have determined that, to the best of their knowledge, no investigational information about pharmaceutical agents that is outside U.S. Food and Drug Administration–approved labeling has been presented in this article.

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