Borderline Personality Symptomatology and Employment Disability: A Survey Among Outpatients in an Internal Medicine Clinic

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Objective: The relationship between borderline personality symptomatology and employment disability has undergone limited study. Four previous studies indicate a possible relationship, but each has its own inherent limitations. In the present study, we examined this relationship among 94 internal medicine outpatients.

Method: Using a sample of convenience, we administered 2 self-report measures for borderline personality (the Personality Diagnostic Questionnaire-4th Edition, which is based on DSM criteria, and the Self-Harm Inventory, which correlates with scores on the Diagnostic Interview for Borderlines) and inquired about the lifetime presence and length of either psychiatric or medical disability. The study was active from February 2003 through January 2005.

Results: There was a significant and positive correlation between scores on both borderline personality measures and the length of psychiatric disability for women ($r = .33$, $r = .36$, $p = .05$); however, no significant relationship was found between scores on either measure for borderline personality and the length of either psychiatric or medical disability for men.

Conclusions: These findings suggest that, in contrast to men, there may be a relationship between borderline personality symptomatology and psychiatric disability only among women (i.e., there may be a gender difference). We discuss the possible implications of these results.

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The relationship between personality disorders, specifically borderline personality symptomatology (BPS), and work disability has undergone little empirical investigation. However, several studies indicate a potential relationship between these 2 phenomena.

General Personality Disorder Symptomatology and Disability

Several studies have examined the relationship between general personality dysfunction and subsequent employment status. The majority of these studies have consisted of medical samples. For example, among patients with acute back pain, Gatchel and colleagues[1] examined employment outcome at 6 months. Among those who developed chronic disability there was a significantly higher prevalence of personality disorders compared with those who returned to work. Ekselius and colleagues[2] examined a mixed group of medical patients, some with somatoform pain disorders and others with various medical disorders. The presence of a personality disorder within the Cluster B category was associated with an earlier age of longstanding employment disability. Wijeratne and colleagues[3] compared younger (less than age 65 years) with older patients attending a chronic pain clinic and found that the former demonstrated more impulsive personality traits as well as greater social and physical disability. Finally, Gatchel[4] described the role of personality disorders in impairing the coping abilities of individuals with chronic pain, thus heightening the risk of employment disability.

However, not all researchers have found statistical relationships between personality dysfunction and employment disability. For example, Ericsson and colleagues[5] examined 184 pain patients with the Karolinska Scales of Personality. Neither baseline personality traits nor the diagnosis of a personality disorder were predictors of disability status. Ciccone and colleagues[6] examined 84 females with chronic fatigue syndrome and concluded that psychiatric disorders, with or without comorbid personality disorders, were not associated with physical impairment or disability. Finally, Owen[7] examined personality pathology in 125 chronic low back pain patients and

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concluded that personality pathology was not related to return-to-work status at 1-year follow-up.

Borderline Personality and Disability

Compared with studies of general personality pathology and disability, those examining specifically for BPS and employment disability are few in number. In a 1977 study, Mikkelsen[8] described 50 consecutive evaluations for psychiatric disability and reported that 12% suffered from "borderline personality organization." Burton and colleagues[9] examined the long-term employment outcome of 70 individuals with work-related upper-extremity chronic pain. Borderline personality was a predictor for poor return-to-work status. Finally, among a sample of 45 individuals in an internal medicine clinic, Sansone and colleagues[10] found that 72% of the employment-disabled versus 26% of the nondisabled participants met the criteria for borderline personality on 1 of 2 self-report study measures.

In summary, the majority of studies in the area of general personality pathology and employment disability suggest a relationship between these 2 phenomena. With regard to the 3 available studies examining the relationship between BPS and disability,[8–10] all demonstrate a probable relationship, including our previous study.[10]

In reviewing the previous studies, a number of potential limitations became evident. Our first study[10] was limited by the small sample size and the lack of disability clarification—psychiatric or medical. The remaining 2 studies in this area also have potential limitations. The Mikkelsen[8] study was undertaken prior to the development of consistent *Diagnostic and Statistical Manual of Mental Disorders (*DSM) diagnostic criteria for borderline personality disorder (i.e., participants were diagnosed with "borderline personality organization"). The Burton et al.[9] study entailed a specific medical population of pain patients, which might limit the ability to generalize these data to more general medical populations. In addition, while employment disability is either suggested or indicated by these studies, whether this is for psychiatric or medical reasons is only clear in 1 study.[8] Finally, among the preceding studies, there is no analysis of findings by gender status.

Our initial study of this relationship among internal medicine patients was the impetus for the present study. In contrast to our first study,[10] however, we wished to obtain a larger sample size and wanted to assess the type of disability (i.e., psychiatric or medical) among participants. We also wanted to examine for gender patterns with regard to employment disability, as BPS is more often diagnosed in women. In the present study, using 2 self-report measures for borderline personality, we examined the relationship between BPS and disability (either psychiatric or medical) in a large sample of outpatients in an internal medicine clinic and analyzed these data by gender status.

METHOD

Participants

Participants were men and women between the ages of 18 and 65 years who were seen as outpatients in an internal medicine clinic in which residents supervised by faculty provide services. The clinic is the outpatient training facility for a community hospital–based internal medicine training program that is located in a mid-sized, midwestern city. The clinic has a number of indigent patients and is geographically located near a community mental health center.

The participating resident authors, who provided medical services during the patients' appointment times, approached all candidates. Participants were recruited as time permitted (i.e., the sample was one of convenience). There were no incentives for participation. Of the 123 patients who were approached, 106 agreed to participate, for a response rate of 86.2%. A total of 12 participants produced invalid or incomplete questionnaires and were excluded from analyses, bringing the working sample size to 94 (overall response rate of 76.4%).

Procedure

After recruitment, all participants completed an on-site survey that explored demographic information (e.g., age, sex, marital status, educational background), history of psychiatric or medical disability, years employed since the age of 18, and BPS using 2 self-report measures.

Disability status. With regard to employment disability, participants were asked, "Have you ever been on psychiatric disability? If so, how many total number of years?" and "Have you ever been on medical disability? If so, how many total number of years?" Participants were also asked, "How many years have you been employed since age 18?"

Borderline personality symptomatology. The first measure for BPS was the borderline personality scale of the Personality Diagnostic Questionnaire-4th Edition (PDQ-4),[11] which is a 15-item self-report measure that consists of the criteria for borderline personality disorder as described in DSM-IV.[12] The PDQ-4 has 9 yes/no items and 6 checklist items. Scores of 5 or higher are highly suggestive of borderline personality disorder. Earlier versions of the PDQ have been confirmed as useful screening tools for borderline personality in both clinical[13,14] and nonclinical samples,[15] including the use of the freestanding borderline scale.[16]

The second measure for BPS was the Self-Harm Inventory (SHI),[17] a 22-item, yes/no, self-report measure that screens for borderline personality. Each item in the inventory is preceded by the phrase, "Have you ever intentionally, or on purpose . . . " and items include "overdosed," "cut yourself," "burned yourself," "hit yourself," and "attempted suicide." Each endorsement is in the path-

ologic direction and the total SHI score is the sum of endorsements. In comparison with the Diagnostic Interview for Borderlines,[18] using a cutoff score of 5, the SHI demonstrates an 85% accuracy in the diagnosis of borderline personality disorder.[17] The SHI demonstrated excellent internal consistency among this sample ($\alpha = .90$).

Participation in the survey was presumed to be informed consent. The institutional review boards of both the community hospital and the university approved this project. The study was active from February 2003 through January 2005.

RESULTS

In this study sample, 57 participants (60.6%) were women and 36 (38.3%) were men (data were missing for 1 participant). The mean age of participants was 41.8 years (SD = 18.3 years) and 84.0% were white, 9.6% were African American, 2.1% were Asian American, 2.1% were Hispanic, 1.1% were Native American, and 1.1% did not endorse ethnicity. With regard to marital status, 41.5% were married, 21.3% were divorced, 20.2% never married, 6.4% were separated, 5.3% were widowed, and 5.3% did not endorse marital status. In terms of education, 87.2% had not completed a 4-year college degree, 11.7% had a 4-year college degree, and 1.1% did not endorse educational status.

Among the entire sample, a total of 28 participants (29.8%) met the criteria for BPS and 66 (70.2%) did not. Among those meeting the criteria for BPS, 20 (71.4%) were women and 8 (28.6%) were men. The number of participants meeting the criteria for BPS on the PDQ-4 but not the SHI was 9 (8.6%); the number of those meeting the criteria for BPS on the SHI but not the PDQ-4 was 8 (7.6%); and the number of those meeting the criteria for BPS on both the PDQ-4 and the SHI was 11 (10.5%).

Because of small group sizes, analyses using continuous variables were employed in order to improve power to detect an effect. Table 1 presents the Pearson product-moment correlation coefficients for the relationships between measures for borderline personality symptomatology and disability status, either psychiatric or medical. While no significant findings emerged when men and women were grouped together, differences were detected when analyzed by gender. There was a significant and positive correlation between scores on both borderline measures and length of psychiatric disability for women; however, no significant relationships were found between scores on either measure and length of either psychiatric or medical disability for men. In addition, no significant findings emerged when we examined the relationship between BPS and the percentage of one's lifetime spent in an employment-disabled condition.

Next, a hierarchical multiple regression analysis was performed to determine if demographic variables might be stronger predictors of the length of psychiatric disability than borderline personality scores. Race was entered first, followed by marital status, educational status, PDQ-4 score, and finally, SHI score. No significant predictors emerged for length of either psychiatric or medical disability for men, and no significant predictors emerged for length of medical disability status for women. However, educational status emerged as a significant predictor of the length of psychiatric disability for women, accounting for 12% of the variance over and above race and marital status ($F = 6.24$, $df = 1,47$; $p = .016$) (unstandardized beta [B] = .52, 95% CI = 0.10 to 0.94). The PDQ-4 score also emerged as a significant predictor of the length of psychiatric disability for women, accounting for 16% of the variance over and above race, marital status, and educational status ($F = 10.2$, $df = 1,46$; $p = .003$) (B = .32, 95% CI = 0.12 to 0.52). The SHI score did not emerge as a significant predictor of length of psychiatric disability in this regression.

Post hoc power analyses were performed to determine whether there was sufficient power to detect a large effect size in the male group and the female group at the .05 level. For the regression model in the male group, power was .28. Power was .48 for the regression model in the female group. While power was greater in the female group, both models were underpowered.

Table 1. Pearson Correlations for Borderline Personality Symptomatology Measures and Type and Length of Disability by Gender

Gender	Length of Psychiatric Disability	Length of Medical Disability	Effect Size (r^2)
Women			
PDQ-4	.33*	.03	.11[a]
SHI	.36*	.16	.13[a]
Men			
PDQ-4	–.10	.04	…
SHI	.33	–.11	…

[a]Small effect size.
*p = .05.
Abbreviations: PDQ-4 = Personality Diagnostic Questionnaire-4th Edition, SHI = Self-Harm Inventory.
Symbol: … = not applicable.

DISCUSSION

In this study, we found that both measures for BPS correlated with the length of psychiatric disability only among women, but neither correlated with the length of either psychiatric or medical disability in men. In addition, the level of education and scores on the PDQ-4 related to the length of psychiatric disability in women. These findings suggest several general conclusions: (1) the relationship between BPS and employment disability may relate only to women and to psychiatric disability (in this study, BPS did not relate to medical disability in women); (2) BPS may not be a significant factor among

men with regard to either psychiatric or medical disability; and (3) when examining disability status in clinical settings, it appears relevant to clarify the type of disability (i.e., psychiatric or medical) as well as to anticipate possible gender differences.

In other studies, investigators have found relationships between BPS and employment disability, as we found in this study in women. However, few of these studies clarify whether this employment disability was psychiatric or medical. Our findings indicate that psychiatric disability accounts for employment disability, and possibly only in women.

That women, and not men, may evidence a relationship between BPS and psychiatric employment disability is particularly interesting. In our previous study,[10] we had a preponderance of women in the sample, as expected, but we did not clarify in our survey booklet whether the employment disability was related to psychiatric or medical disability. This may explain why we found a dramatic difference between the BPS and non-BPS subsamples with regard to disability. The present study further clarifies this relationship from the perspective of possible gender differences as well as disability type.

As mentioned earlier, post hoc power analyses revealed that analyses for the male group were underpowered; thus, the gender differences revealed in this study should be interpreted with caution (i.e., the gender difference observed needs to be replicated in a sample with sufficient power). However, if genuine gender differences actually exist, why might men with BPS not evidence a relationship with disability? First, it may be that there are higher cultural expectations for employment among men compared with women, regardless of the presence or not of psychopathology. Second, it may be that BPS is a more psychologically disabling syndrome in women, compared with men. Third, it may be that disabled men are more able to link up with financially supportive partners, compared with women, and through mutual income effectively support themselves. Finally, the gender differences might lie within our measures. Explicitly, these measures may be better at detecting BPS among women versus men. In support of this possibility, most borderline personality disorder measures are tested in clinical settings that have a predominance of women. Therefore, such measures may have unintentionally been developed to detect women with borderline personality disorder. In support of this possibility, there are empirically confirmed distinct gender differences among borderline patients, with men being more likely to have antisocial features and suffer from substance abuse and women tending to have more histrionic features and suffer from eating disorders and posttraumatic stress disorder. These clinical differences may be affecting BPS detection rates among men with the current measures.

Nearly 30% of this sample met the criteria for BPS on 1 or both study measures, which is consistent with our previous studies using self-report measures for borderline personality in primary care outpatient settings. Because we perceive these self-report measures for BPS as potentially overinclusive, throughout this article we have used the term *BPS* to designate symptoms consistent with borderline personality rather than the disorder itself. In addition, the lack of strict subject overlap with our 2 measures is typical when comparing any 2 measures of borderline personality disorder.

It is easy to understand why BPS might be a factor for psychiatric disability in adulthood. From a psychiatric perspective, interpersonal functionality and impulse control might be so impaired as to preclude successful employment. However, since employment usually provides life structure, the effect of the ensuing lack of structure on patient functioning for those patients on disability has yet to be ascertained.

There are a number of potential limitations in the present study. First, this was a sample of convenience. Being so, there may have been unintentional selection bias during subject recruitment. For example, while we have no descriptive information on the patients who declined to participate, those with more complicated medical needs may have been unintentionally excluded due to time limitations. These more medically distressed patients might have been more likely to have had adjunctive mood and anxiety disorders, which in turn might have had an effect on the results of our personality measures. In support of this, Reichborn-Kjennerud and colleagues[19] have previously described the relationship between mood symptoms and personality disorder scores, i.e., that current mood symptoms may result in increased scores on personality scales, including Cluster B personality disorders. If so, this may have resulted in 2 possible effects on the results: (1) more medically ill patients with mood disorders might also have scored positively on the self-report measures used in this study, possibly washing out the observed gender effects, or (2) the relationship between disability and specifically borderline personality disorder may have been tempered because of the potential magnification of some other personality disorder/cluster, which we did not measure.

Second, the diagnosis of BPS was based on 2 self-report measures rather than a structured clinical interview. However, the SHI has been compared to a semi-structured interview for borderline personality disorder diagnosis[18] and been found to have a diagnostic accuracy of 85%.[17] Third, the affirmation of employment disability was self-report in nature, with no external corroboration. Fourth, it is possible that some other aspect of emotional illness beyond BPS (e.g., depression) accounts for these findings, but we did not assess for Axis I diagnoses in this study.

As for the unique features of this study, this is one of the few empirical efforts to examine both psychiatric and

medical disability in a study population, and the only one to employ 2 measures for BPS and explore differences in gender patterns. Again, our findings indicate that in primary care settings, women, but not men, with BPS may be particularly susceptible to psychiatric-related employment disability. These gender differences warrant further investigation, and if confirmed, future studies need to examine why these gender differences exist.

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