Original Article

Externalized Aggressive Behaviors in Patients with Borderline Personality Symptomatology

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Objective: Borderline personality disorder (BPD) is commonly characterized by self-directed aggressive behavior, although the literature indicates that externalized aggressive behavior may be present. The simultaneous examination of multiple types of externalized aggressive behavior in individuals with BPD and the exploration of such relationships in a primary care population have not, to our knowledge, been undertaken; this is the focus of the present study.

Methods: Using a cross-sectional approach in a consecutive sample of 335 internal medicine outpatients, we explored through a self-report survey the relation between 21 externalized aggressive behaviors and BPD symptomatology, using two self-report measures for assessment: the borderline personality disorder scale of the Personality Diagnostic Questionnaire-4 (PDQ-4) and the Self-Harm Inventory (SHI).

Results: Scores on the measure for externalized aggressive behavior correlated strongly with scores on the PDQ-4 ($r = 0.60$; $P < 0.001$) and the SHI ($r = 0.67$; $P < 0.001$) and were statistically significantly greater among respondents who exceeded the cutoff scores for BPD symptomatology on both the PDQ-4 and the SHI as compared with respondents who did not exceed these scores.

Conclusions: In addition to self-directed aggressive behavior, individuals with BPD symptomatology also exhibit various externalized aggressive behaviors.

Key Words: aggression, borderline personality disorder, Personality Diagnostic Questionnaire-4, Self-Harm Inventory, violence

Borderline personality disorder (BPD) is a personality dysfunction that traditionally is associated with self-directed aggressive behavior (eg, self-mutilation, suicide attempts). According to the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*,[1] however, BPD also is characterized by inappropriate and intense anger or difficulty controlling anger, including frequent displays of temper, constant anger, and/or recurrent physical fights—all of which are suggestive of the potential for externalized aggressive behavior.

Several studies support the presence of externalized aggression in BPD, but in piecemeal fashion. For example, through a literature review, it was concluded that relationships exist between BPD and aggression among inpatients, criminal behavior, relationship aggression, and general violence.[2] Likewise, various investigators have indicated that BPD may be associated with violent acts[3]; aggression toward others[4]; destruction of property[4]; partner violence by men,[5–11] women,[12,13] and both sexes[14]; various disruptive behaviors in medical settings (eg, yelling/screaming at healthcare personnel)[15]; general criminal behavior[16]; assault of fellow psychiatric inpatients and staff[17]; familicide (homicide involving the intimate partner and at least one child)[18]; and serial homicide.[19,20] In one prospective study, 73% of participants with BPD engaged in violence during a subsequent 12-month observation period, with documented behaviors commonly related to disputes with acquaintances and/or significant others.[21] We are not aware of any study that has either simultaneously examined BPD in relation to multiple

Key Points

- Borderline personality disorder (BPD) traditionally is characterized by self-directed aggressive behavior (eg, cutting, suicide attempts).
- In this study, investigators examined and confirmed that externalized aggressive behavior was more common among participants with BPD symptomatology compared with those without this symptomatology.
- The most commonly reported behaviors that demonstrated between-group differences (more common in participants with BPD symptomatology) were intentionally breaking things (74.1%), pushing or shoving a partner (61.5%), punching a wall (52.7%), participating in fistfights not in a bar (49.5%), hitting a partner (39.6%), damaging the property of others to exact revenge on them (35.2%), and threatening someone with a weapon (29.7%).

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externalized aggressive behaviors or examined such relations in a primary care population, the focus of the present investigation. If present, such findings would indicate that externalized aggressive behavior in individuals with BPD extends to more general clinical populations rather than for assaultive psychiatric inpatients, relationships characterized by domestic violence, criminals, or those charged with murder. We hypothesized that compared with non-BPD participants, those with BPD features would exhibit higher numbers of different externalized aggressive behaviors.

Methods

Participants

Participants were men and women, 18 years old or older, who were being seen at an internal medicine outpatient clinic for nonemergent medical care (ie, a sample of convenience that was not generally seeking treatment for mental health issues). The outpatient clinic is staffed by both faculty and residents in the Department of Internal Medicine and located in a mid-size midwestern city. The majority of patients recruited for this study were seen by resident providers. We excluded individuals assessed by the recruiter as having compromising medical (eg, pain), intellectual (eg, mental retardation), cognitive (eg, dementia), or psychiatric symptoms (eg, psychosis) of a severity that would preclude the candidate's ability to successfully complete a survey (n = 62). This was done informally (ie, the recruiter made an exclusion decision based upon observing the patient at check in and assessing whether he or she would be able to complete a survey). This exclusion method was selected because of the busy nature of the outpatient clinic and the need for surveys to be completed before scheduled appointments with primary care providers.

At the outset, 480 individuals were approached and 369 agreed to participate, for a participation rate of 76.9%. Of these, 335 completed the relevant study measures. Of the 335 respondents included in our analyses, 227 (67.8%) were women and 108 (32.2%) were men, ranging in age from 18 to 87 years (mean 49.94, standard deviation [SD] 15.47). Most participants were white (85.8%), followed by African American (9.3%) and other ethnicity/race (4.9%). With regard to educational attainment, all but 7.6% had at least graduated high school and 30.0% had earned a 4-year college degree or higher.

Procedure

During clinic hours, one of the authors (J.S.L.) approached consecutive incoming patients of the internal medicine outpatient clinic after check in and informally assessed exclusion criteria. With potential candidates, he reviewed the focus of the project (ie, a study examining personality patterns and aggressive behavior) and invited each to participate. Each participant was asked to complete a six-page survey, which took approximately 10 minutes. Participants completed materials in the lobby and were asked to place completed anonymous surveys into sealed envelopes and then into a collection box in the lobby. There was no compensation for participation.

The survey consisted of three sections. The first section was a demographic query in which we asked participants about their sex, age, race/ethnicity, and education. The second section of the survey explored externalized aggressive behaviors through a 21-item, yes/no, author-developed questionnaire (Aggressive Behavior Questionnaire [ABQ]), a measure that has not been used in research. Participants were asked, "As an adult (ages 18 and older), have you ever…?" Individual items of the ABQ include "punched a wall when angry, intentionally broken things when angry, hit your partner when angry," and "hit a child out of anger, not because of discipline" (Table).

The third section of the survey contained two self-report measures for borderline personality symptomatology: the BPD scale of the Personality Diagnostic Questionnaire-4 (PDQ-4)[22] and the Self-Harm Inventory (SHI).[23] The BPD scale of the PDQ-4 is a nine-item, true/false, self-report measure that includes the diagnostic criteria for BPD that are listed in the *DSM-IV*.[24] A score of ≥5 is highly suggestive of BPD. Previous versions of the PDQ have been found to be useful screening tools for BPD in both clinical[25,26] and nonclinical samples,[27] including the use of the freestanding BPD scale.[28]

The second BPD measure, the SHI, is a 22-item, yes/no, self-report inventory that explores participants' histories of self-harm behavior.[23] Each item in the inventory is preceded by the statement, "Have you ever intentionally, or on purpose… ." Individual items include "overdosed, cut yourself on purpose, burned yourself on purpose," and "hit yourself." Each endorsement increases the possibility of pathology. The SHI total score is the summation of "yes" responses. SHI total scores of ≥5 are highly suggestive of the diagnosis of BPD.[23] In comparison with the Diagnostic Interview for Borderlines,[29] a benchmark measure for the diagnosis of BPD in research settings, the SHI demonstrated an accuracy in diagnosis of 84%.[23]

The project was reviewed and exempted by the institutional review boards of both the community hospital and the university. Completion of the survey was assumed to function as implied consent, which was explicitly clarified on the cover page of the booklet.

Results

Scores on the ABQ ranged from 0 to 17 (mean 2.60, SD 3.10), with the majority of participants (67.2%) indicating at least one form of aggressive behavior. ABQ scores did not differ significantly between men (mean 2.66, SD 3.36) and women (mean 2.56, SD 2.96, $F[1,333]$ 0.07; $P < 0.080$). PDQ-4 scores ranged from 0 to 9 (mean 2.15, SD 2.24), whereas scores on the SHI ranged from 0 to 19 (mean 2.73, SD 3.67). Using the cutoff score of 5 on each measure of BPD, 57 (17.0%) exceeded the cutoff on the PDQ-4 and 76 (22.7%)

Table. Rates of endorsement of ABQ items as a function of BPD status

ABQ item	BPD, % n = 91	Non-BPD, % n = 244
Punched a wall when angry?	52.7*	21.7
Intentionally broken things when angry?	74.7*	29.1
Hit your partner when angry?	39.6*	13.9
Hit a child out of anger, not because of discipline?	15.4*	4.1
Caused and gotten into a bar fight?	27.5*	8.6
Gotten into fist fights (not in a bar)?	49.5*	17.2
Mistreated an animal when angry?	11.0	5.7
Killed an animal when angry?	1.1	0.04
Been charged with assault (not necessarily convicted)?	12.1*	2.5
Damaged anyone else's car on purpose?	28.6*	5.7
Damaged the property of others to "get back" at them?	35.2*	7.0
Stolen from anyone because of anger, not need?	15.4*	1.6
Defaced public property (eg, walls, buildings, parks)?	6.6	2.0
Intentionally ran anyone off the road?	5.5	1.6
Beat up anyone such that they required medical attention?	14.3*	3.7
Pushed or shoved a partner when angry?	61.5*	23.8
Caused anyone to have an "accident"?	4.4*	0.0
Bullied a partner into sex?	2.2	0.1
Spit at or on anyone?	19.8*	4.1
Bitten anyone?	18.7*	3.3
Threatened anyone with a weapon?	29.7*	4.1

BPD status determined by scoring positively on the PDQ-4, SHI, or both. ABQ, Aggressive Behavior Questionnaire; BPD, borderline personality disorder; PDQ-4, Personality Diagnostic Questionnaire-4; SHI, Self-Harm Inventory.
**$P < 0.001$ based on χ^2 analysis.*

exceeded the cutoff on the SHI. Scores on the PDQ-4 and SHI were strongly correlated ($r = 0.71$; $P < 0.001$).

Scores on the ABQ correlated strongly with PDQ-4 scores ($r = 0.60$; $P < 0.001$) and the SHI ($r = 0.67$; $P < 0.001$). Scores on the ABQ were statistically significantly higher among respondents who exceeded the cutoff score for BPD on the PDQ-4 (mean 5.95, SD 4.05) compared with respondents who did not (mean 1.91, SD 2.34, F[1,333] 105.52; $P < 0.001$). Similarly, scores on the ABQ were statistically significantly higher among respondents who exceeded the cutoff score for BPD on the SHI (mean 5.68, SD 4.00) compared with respondents who did not (mean 1.69, SD 2.03, F[1,333] 137.58; $P < 0.001$).

To examine the pattern of response to the ABQ items as a function of BPD symptomatology status, we examined the proportion who endorsed each item, comparing respondents who exceeded the cutoff score on either measure of BPD (n = 91) with those who did not (n = 244). The results of these comparisons are presented in the Table.

Discussion

Regardless of the type of analytic approach used in this study, participants with BPD symptomatology were significantly more likely to have engaged in various externally directed aggressive behaviors as compared with those without such symptomatology. In addition, the most commonly reported behaviors that demonstrated between-group differences were intentionally breaking things (74.1%), pushing or shoving a partner (61.5%), punching a wall (52.7%), participating in fistfights not in a bar (49.5%), hitting a partner (39.6%), damaging the property of others to exact revenge on them (35.2%), and threatening someone with a weapon (29.7%). These data appear to strongly reinforce the impression that patients with BPD symptomatology engage not only in self-directed aggressive behavior but also various forms of externalized aggressive behavior. Behaviors that are interpersonally aggressive reflect the generally volatile nature of these individuals' relationships with others, which is specified as a diagnostic criterion in the *DSM-IV* (a pattern of unstable and intense interpersonal relationships). In addition, externalized aggression may be explained by several other *DSM* diagnostic criteria for BPD (eg, impulsivity, reactivity of mood, intense anger).

Note that throughout the article we have used the term "BPD symptomatology" to describe the corresponding subsample of patients. The study measures, although highly correlated, are best viewed as screening measures for BPD. They are not intended as substitutes for diagnosis, which is best undertaken through interview. Because of this, these measures

run the risk of generating false-positives or being overly inclusive, which partially explains the high rates of BPD-positive individuals encountered in this study; however, both measures appear to accurately assess the features of BPD. As a caveat, this study was undertaken in a resident-run clinic, which provides services for a large percentage of uninsured individuals and may partially explain the high rates of personality disorder symptomatology.[30]

An interesting side issue is whether some of these reported aggressive behaviors are a reflection of antisocial behavior. The presence of antisocial personality features does not necessarily exclude the presence of comorbid BPD symptomatology. In a study of axis II comorbidity in BPD, investigators commonly encountered antisocial personality disorder, particularly among male subjects.[31] In addition, some overlap between these disorders is likely, given the overlapping *DSM* criteria between the two, such as irritability and physical fights.

The findings of this investigation indicate that when treating individuals with BPD, it appears clinically relevant to assess not only self-directed aggressive behavior but also externalized aggressive behaviors. These externalized aggressive behaviors may connect with various medical and legal issues that need to be taken into account during treatment, either medical or psychiatric. They also may be an indirect indication of an individual's ability to tolerate stress in a treatment relationship and thereby may indicate any potential risk of danger to the clinician.

This research has a number of potential limitations. First, all of the data were self-report in nature; thus, endorsement of individual aggression items may have been influenced by a number of psychological variables, including forgetfulness, suppression, denial, repression, and misinterpretation. In addition, the self-report measures used in this study for the assessment of BPD are screening measures and indicate BPD symptomatology, not necessarily bona fide BPD. Second, the exclusion process was informal and some individuals who were excluded at the outset may have influenced findings had they been included, although the overall response rate was reasonable. Third, a percentage of participants may have had antisocial features, but from these data we cannot discern what percentage or level of comorbidity exists between BPD and antisocial personality in this sample. Finally, the ABQ does not have established psychometric properties and it does not quantify the frequency or severity of such behaviors; we can only discern lifetime prevalence.

Conclusions

Despite these potential limitations, this is the first study to our knowledge to investigate multiple externalized aggressive behaviors in relationship to BPD symptomatology among a primary care population. Findings indicate a distinct statistical association and support the clinical impression that individuals with BPD exhibit both self-directed and externally directed aggressive behaviors.

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