

Utilization of primary care physicians in borderline personality

Randy A. Sansone, M.D.^{a,b,*}, Shahzad Farukhi, M.D.^b, Michael W. Wiederman, Ph.D.^c

^a*Internal Medicine at Wright State University School of Medicine in Dayton, OH 45409, USA*

^b*Kettering Medical Center in Kettering, OH 45429, USA*

^c*Department of Human Relations at Columbia College in Columbia, SC 29203, USA*

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Abstract

Objective: Individuals with borderline personality disorder (BPD) consistently demonstrate high patterns of utilization in both mental health and non-psychiatric settings. However, utilization of primary care physicians by these individuals has not been examined. In this study, we examined physician use patterns and hypothesized that primary care outpatients with BPD features would evidence higher numbers of primary care physicians seen, primary care treatment settings experienced, and specialists seen.

Method: Using a cross-sectional consecutive sample of 389 internal medicine outpatients and a self-report survey methodology, we examined the number of primary care physicians seen, primary care treatment settings experienced, and specialists seen by participants during the past 5 years in relationship to two self-report measures for BPD, the BPD scale of the Personality Diagnostic Questionnaire-4 and the Self-Harm Inventory.

Results: There were statistically significant between-group differences in the number of primary care physicians and specialists seen (not the number of primary care treatment settings) over 5 years, and BPD status according to both measures of BPD, with BPD patients reporting higher rates.

Conclusions: Patients with borderline personality symptomatology appear to see a greater number of primary care physicians and specialists than patients without these Axis II symptoms. These findings may reflect the underlying psychological processes of the disorder as well as a general pattern of over-utilization of healthcare services by these types of patients.

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1. Introduction

In a number of studies, individuals with borderline personality disorder (BPD) have been found to be high utilizers of various types of healthcare services. For example, in mental health settings, we found that, compared to nonBPD psychiatric inpatients, inpatients with BPD had significantly higher rates of psychiatric hospitalization, numbers of psychiatrists/therapists seen, and numbers of psychotherapy courses [1]. Bender and colleagues found that, compared to individuals with major depression, those with BPD were significantly more likely to use most types of psychiatric treatment [2]. In a study of psychiatric out-

patients, we found that those with BPD evidenced a significantly greater number of psychotherapy sessions as well as a greater number of prescriptions than nonBPD patients [3]. Finally, in an Australian community sample, Jackson and Burgess found that individuals with BPD were more likely than other individuals to seek psychiatric or psychological consultation [4]. On a side note, some evidence suggests that women with BPD may use more mental health services than men with BPD [5].

In addition to high utilization of mental health services, individuals with BPD appear to be high utilizers of various medical services, as well. In this regard, studies have found that compared with nonBPD participants, individuals with BPD demonstrate significantly higher utilization patterns that are characterized by more frequent office visits [6–8], greater numbers of prescriptions [7,8], and more telephone calls to the office [8]. In a sample of veterans, Black and colleagues found that those with BPD features also

* Corresponding author. Sycamore Primary Care Center, Miamisburg, OH 45342, USA. Tel.: +1 937 384 6850; fax: +1 937 384 6938.

E-mail address: Randy.sansone@khnetwork.org (R.A. Sansone).

demonstrated more outpatient and emergency-room visits as well as a greater number of inpatient stays [9]. Finally, Frankenburg and Zanarini found that BPD patients in remission used significantly fewer analgesics, fewer hypnotics, and had fewer visits to the emergency room than BPD patients not in remission [10]. According to Blum and colleagues, high utilization of medical services among those with BPD tends to increase with age, as expected [11].

Given the seemingly consistent pattern of high utilization of mental health and medical services among individuals with BPD, we wondered about the utilization of primary care physicians—an area of investigation that to our knowledge has not been explored or reported in either the PubMed or PsycINFO databases. We hypothesized that individuals with BPD would evidence a greater number of contacts with different primary care physicians as well as specialists, and a greater number of different primary care treatment settings.

2. Method

Participants were males and females, ages 18 years or older, being seen at an outpatient internal medicine clinic for non-emergent medical care. The outpatient clinic is staffed by both faculty and residents in the department of internal medicine, and is located in a mid-sized, mid-western city. The majority of patients recruited for this study were seen by resident providers. The recruiter excluded individuals with compromising medical (e.g., severe pain), intellectual (e.g., mental retardation), cognitive (e.g., dementia), or psychiatric symptoms (e.g., psychotic)—i.e., symptoms that would preclude the candidate's ability to successfully complete a survey. Simply put, those individuals who appeared too debilitated to complete a survey were not approached, which entailed 20 individuals.

To characterize this clinic, during the year 2008, 64% of the consultations were for females. With regard to age, 30% of patients were between the ages of 15–44 years, 45% between the ages of 45–64 years, and 25% age 65 or older. As for insurance status, 8% were self-pay, 49% had government insurance (Medicare/Medicaid), and 43% had private insurance. The most common clinical diagnoses were hypertension (8.7%), hyperlipidemia (6.1%), diabetes (5.4%), allergies (4.7%), and hypothyroidism (2.3%).

At the outset, 441 individuals were approached and 401 agreed to participate, for a participation rate of 90.9%. Of these, 389 completed the relevant study measures. Of these 389 respondents included in our analyses, 64.8% were female and 35.2% male, ranging in age from 18 to 92 years ($M=53.48$, $SD=16.17$). Most participants were White/Caucasian (90.0%); however, 6.4% of participants were African-American, 1.5% Asian, 1.0% Hispanic, 0.5% Native American, 0.3% Other, and 0.3% missing. With regard to educational attainment, all but 7.5% had at least graduated high school whereas 26.6% had earned at least a bachelor's degree.

2.1. Procedure

During clinic hours, one of the authors (S.F.) positioned himself in the lobby of the outpatient clinic, approached each incoming patient to secure a consecutive sample, and informally assessed exclusion criteria. With regard to the latter, if a patient was obviously too impaired to complete a survey (e.g., excessive pain), the recruiter did not approach him/her. With potential candidates, the recruiter reviewed the focus of the project and then invited each to participate. Each participant was asked to complete a 4-page survey, which took about 10 minutes. Participants were asked to place completed surveys into sealed envelopes and then into a collection box in the lobby.

The survey consisted of 3 sections. In the first section, we asked participants about their demographic information (e.g., sex, age, marital status, racial/ethnic origin, and educational level). In the second section of the survey, we queried participants about their utilization of primary care physicians with three items: 1) “How many *primary care doctors* have you seen in the past 5 years?”; 2) “How many *primary care offices* have you used for medical care during the past 5 years?”; and 3) “How many *specialists* have you seen in the past 5 years?” (bold and italics in the original survey questions). For each of these three questions, respondents were asked to circle a number from a string of 10 digits provided immediately below the question, ranging from 1 to “10 or more.”

In the third section of the survey, we explored BPD using two measures. The first measure, the BPD scale of the Personality Diagnostic Questionnaire-4 (PDQ-4) [12], is a 9-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, Fourth Edition (DSM-IV)* [13]. 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 samples [16], including the use of the freestanding BPD scale [17].

The second BPD measure in this study was the Self-Harm Inventory, a 22-item, yes/no, self-report measure that explores participants' histories of self-harm behavior [18]. We elected this type of measure because the item content is behaviorally based, rather than psychologically based as in the remainder of available BPD self-report assessments (i.e., a contrasting assessment approach). 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, with the SHI total score being the summation of “yes” responses. SHI total scores of 5 or higher are highly suggestive of the diagnosis of BPD [18]. Indeed, in comparison with the Diagnostic Interview for Borderlines [19], a benchmark measure for the diagnosis of

BPD in research settings, the SHI demonstrated an 84% accuracy in diagnosis [18].

Participants were recruited throughout November of 2010. This project was approved by the institutional review boards of the community hospital and local university. Participants were informed on the cover page of the survey that completion of materials functioned as informed consent.

3. Results

Although the possible response choices for each of the three measures of physician usage during the previous five years ranged from 1 to 10, between 7.3–12.5% wrote in 0, depending on the question. So, “0” responses were coded as such. With regard to the number of primary care physicians seen, actual responses ranged from 0–“10 or more” ($M=1.97$, $SD=1.59$). However, the majority of respondents indicated 1 (37.8%) or 2 (32.1%). With regard to the number of primary care offices used, actual responses ranged from 0–9 ($M=1.58$, $SD=1.31$). However, the majority of respondents indicated 1 (50.8%) or 2 (29.7%). With regard to the number of specialists seen, actual responses ranged from 0–“10 or more” ($M=2.55$, $SD=1.91$). However, the majority (60.5%) of respondents indicated between one and three.

Despite the relatively high degree of statistical power, there was no statistically significant sex difference in the number of primary care physicians seen [$F(1,387)=1.39$, $P<.25$], primary care offices seen [$F(1,382)=0.20$, $P<.66$], or specialists seen [$F(1,383)=0.84$, $P<.36$]. Similarly, respondent age was not statistically significantly related to the number of primary care physicians seen ($r=.003$, $P<.96$) or number of primary care offices seen ($r=.08$, $P<.15$). However, age was weakly correlated with the number of specialists seen ($r=.17$, $P<.001$). With regard to educational attainment, we compared those respondents who completed a high school diploma or less ($n=151$) to those with at least some college or a degree ($n=237$). There was a not a statistically significant difference between the two groups with regard to number of primary care physicians seen [$F(1,386)=1.16$, $P<.29$] or primary care offices seen [$F(1,381)=1.68$, $P<.20$]. However, those with relatively greater formal education reported having seen a greater number of specialists ($M=2.24$, $SD=1.76$) compared to those with relatively less formal education ($M=2.75$, $SD=1.99$), $F(1,382)=6.64$, $P<.01$.

Possible scores on the PDQ-4 ranged from 0–9, as did actual scores ($M=1.60$, $SD=1.95$). Thirty-nine (10.2%) of the 383 respondents who completed the PDQ-4 scored above the clinical cut-off score (5 or greater) indicative of BPD. Possible scores on the SHI ranged from 0–22, with actual scores ranging from 0–15 ($M=1.75$, $SD=2.75$). Forty-seven (12.1%) of the 388 respondents who completed the SHI scored above the clinical cut-off score (5 or greater) indicative of BPD.

Table 1

Physician use patterns during the past five years as a function of borderline personality disorder (BPD) status

| Form of physician usage | BPD- | | BPD+ | | F | P |
|--|------|--------|------|--------|-------|------|
| | M | (SD) | M | (SD) | | |
| Using PDQ-4 as the Measure of BPD | | | | | | |
| Number of Primary Care Physicians Seen | 1.88 | (1.44) | 2.85 | (2.46) | 13.37 | .001 |
| Number of Primary Care Offices Seen | 1.59 | (1.10) | 1.47 | (1.41) | 0.39 | .55 |
| Number of Specialists Seen | 2.49 | (1.87) | 3.28 | (2.08) | 6.14 | .02 |
| Using SHI as the Measure of BPD | | | | | | |
| Number of Primary Care Physicians Seen | 1.90 | (1.48) | 2.40 | (2.19) | 4.15 | .05 |
| Number of Primary Care Offices Seen | 1.59 | (1.15) | 1.46 | (1.01) | 0.59 | .45 |
| Number of Specialists Seen | 2.46 | (1.80) | 3.20 | (2.04) | 6.03 | .02 |

Note: BPD=borderline personality disorder; PDQ-4=BPD scale of the Personality Diagnostic Questionnaire-4; SHI=Self-Harm Inventory.

We next examined utilization of primary care physicians in relationship to BPD through correlations. Scores on the PDQ-4 correlated weakly with the number of primary care physicians seen ($r=.17$, $P<.001$) and specialists seen ($r=.15$, $P<.01$), but not with the number of primary care offices seen ($r=-.01$, $P<.95$). Similarly, scores on the SHI correlated weakly with the number of primary care physicians seen ($r=.18$, $P<.001$) and specialists seen ($r=.16$, $P<.01$), but not with the number of primary care offices seen ($r=-.01$, $P<.95$).

Finally, we examined utilization of primary care physicians as a function of BPD status. Table 1 presents the results of analyses based on those respondents who exceeded clinical cut-off scores for BPD compared to those who did not. Regardless of the measure of BPD used, respondents who scored positive for BPD reported a statistically significantly greater number of different primary care physicians and specialists seen than did those respondents who did not score positive for BPD. However, BPD status was not statistically significantly related to the number of different primary care offices used.

4. Discussion

Our findings indicate that compared to outpatients without borderline personality symptomatology, those with such symptoms tend to experience significantly greater turnover in primary care physicians and see a greater number of specialists. However, they do not report a greater number of different primary care office sites. This utilization pattern of primary care physicians suggests a possible lack in the continuity of medical care.

What might explain the relatively higher turnover in primary care physicians among patients with borderline personality symptomatology? While these data do not provide any insight into an explanation, it is possible that

the volatile nature and low frustration tolerance of individuals with BPD result in frequent changes in physicians. Indeed, we suspect from experience that changes in physicians are likely to be precipitated by both relationship impasses as well as patient intolerance of limits (e.g., in response to a request for controlled substances).

One might argue that high turnover in primary care physicians might be expected in a resident-provider clinic. However, the comparison group (i.e., those without BPD features) was being seen in the same setting, thereby controlling for this concern.

Given the potential self-reported ruptures in the continuity of medical care, future research might explore a number of outcome areas. For example, do frequent changes in primary care physicians in any way impair the management of chronic disease states in these patients? Do changes in primary care physicians negatively impact overall cost of care (e.g., do such changes result in unnecessary repeat laboratory testing)? Due to changes in primary care physicians, is there confusion with prescription management?

Note that the number of primary care treatment settings did not correlate with either measure of borderline personality symptomatology. This probably indicates that patients with BPD are cycling through large clinics with multiple primary care providers.

This study has a number of potential limitations, most importantly the self-report nature of the data. For example, because the measures of physician utilization were self-report, we cannot be sure that the relatively higher rates reported by those with BPD symptomatology reflect actual differences in utilization or response bias. Also, the measures for BPD in this study were self-report in nature and risk being over-inclusive (i.e., capable of generating false positives). For this reason, we have used the term, borderline personality symptomatology rather than BPD. In addition, we do not know what percentage of patients was scheduled to see faculty versus residents, which could affect the potential prevalence of borderline personality symptomatology in this sample. Likewise, we do not have any adjunctive psychiatric diagnoses, which might clarify relationships with regard to seeking medical treatment, and did not use the full PDQ-4 assessment to determine additional Axis II diagnoses (we have avoided doing this because the resulting findings result in multiple subsamples that are frequently too small to effectively analyze).

Despite the preceding potential limitations, this is the first study to our knowledge to examine physician use patterns by patients with BPD. Findings suggest greater turnover in primary care physicians as well as a greater number of specialists, which may be a direct reflection of the underlying psychological processes entailed in this disorder as well as an indirect reflection of the general pattern of over-utilization of healthcare services observed in this patient cohort.

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