Relation of Temperament and Childhood Experiences with the Borderline Personality Disorder Diagnosis

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Introduction

Borderline personality disorder (BPD) is a severe psychological disorder characterized by patterns of instability in affect regulation, impulse control, interpersonal relationships, and self-concept (Gunderson, 2011). These patterns are also evident in complex PTSD, which extends beyond DSM-5 PTSD in that it relates to prolonged, repeated victimization (Herman, 1992).

The DSM-5 categories of BPD and PTSD share substantial symptomatic overlap. This has raised questions as to whether BPD and PTSD describe the same disorder, whether BPD and PTSD are two separate disorders that often co-occur, or whether some cases of BPD are misdiagnosed cases of complex PTSD. These questions may be particularly relevant for women, as women diagnosed with BPD tend to report higher rates of abuse and meet diagnostic criteria for PTSD (Johnson et al., 2003).

The development of BPD has been linked to temperamental traits negative affectivity and disinhibition, as well as childhood sexual abuse (CSA) and childhood physical abuse (CPA) (Paris, 1994). Few studies have addressed the relations between putative etiological factors and the course of BPD symptoms longitudinally. Although BPD is conceptualized to be stable condition, temperamental features of BPD have been shown to vary over time (Sanislow et al., 2009).

The present study examines the longitudinal effects of temperament and childhood abuse on BPD symptoms in men and women in order to provide insight into the validity of the BPD diagnosis and its relation to PTSD.

Objectives

This study serves as a preliminary step to extending previous research in the following ways:

- Prospectively examines the longitudinal effects of temperamental (negative affect and disinhibition) and experiential (childhood physical and sexual abuse) variables on the course of BPD symptoms over 4 years
- Tests the longitudinal relations between putative causal factors and BPD symptoms for men and women, examined separately for each

Hypotheses

1. Temperament will predict BPD symptoms over 4 years for both men and women
2. Experiences of childhood abuse (physical and sexual) will account for specific variance of BPD symptoms differently in men and women; for women CSA and for men CPA

Methods

Sample

The sample includes a subset of 563 patients from the Collaborative Longitudinal Personality Disorders Study (CLPS). The CLPS sample is comprised of treatment-seeking patients assigned to a primary personality disorder diagnostic group. Patients were between the ages of 18 and 45 and were primarily female (65%) and Caucasian (65%). Assessments were given at baseline, 6 months, and every year over the course of 10 years. Clinical symptom and trait data were obtained by reliable and valid semi-structured diagnostic clinical interviews and by self-report (Zanarini et al., 2000).

Measures

- Personality traits: Calculated as sums of facet scores of the Revised NEO Personality Inventory (NEO PI-R) assessed at baseline. Negative affectivity includes anxiety, anger/hostility, and depression scores; disinhibition includes impulsivity and reverse-scored self-discipline and deliberation. Scores could range from 0–120.
- Sexual abuse: includes male and female caretaker and other sexual abuse items from the CEQ-R and Trauma Addendum, assessed at 6 months. Scores could range from 0-10.
- Physical abuse: includes male and female caretaker physical abuse from the CEQ-R and Trauma Addendum, assessed at 6 months. Scores could range from 0-8.
- BPD Criteria: Calculated as sums of clinical and subclinical ratings of the BPD diagnosis from the Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV) assessed at baseline, 2 years, and 4 years. Scores could range from 0-18.

Procedure

The hypotheses were tested with stepwise regression modeling using SPSS. Three models were tested, each separately for men and women. For all three models, the independent variables entered were negative affectivity, disinhibition, sexual abuse, and physical abuse. Each model contained a different dependent variable; model 1 used the baseline BPD diagnosis, model 2 used the 2-year BPD diagnosis, and model 3 used the 4-year BPD diagnosis. BPD criteria were summed to obtain a dimensional score fore each diagnosis that could range from 0 to 18.

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Results

Measures

The negative affectivity score ranged from 29-116 with a mean score of 86 (SD=13.8); the disinhibition score ranged from 33-108 and had a mean score of 75 (SD=12.9). The sexual abuse scale ranged from 0-10 and had a mean of 1 (SD=1.5); the physical abuse scale ranged from 0-8 and had a mean of 1.6 (SD=2.1). BPD symptoms ranged from 0-18 and had a mean score of 8.3 (SD=5.3) at baseline, 6.1 (SD=5.1.) at 2 years, and 4.5 (SD=4.5) at 4 years. Missing values were excluded case-wise.

Correlations

The BPD diagnosis was positively correlated with negative affectivity (.49), disinhibition (.24), sexual abuse (.36), and physical abuse (.34) at the $p<.001$ level of significance (2-tailed).

Table 1. Regression Models Predicting Baseline, 2-Year, and 4-Year BPD Symptoms in Men and Women

	Men						Women					
Dependent variable	**Significant predictors**	**R^2**	**R^Δ**	**F**	**df**	**p**	**Significant predictors**	**R^2**	**R^Δ**	**F**	**df**	**p**
Model 1: Baseline BPD Symptoms	Neg Affect	.239	.239	43.4	1, 138	.000	Neg Affect	.304	.304	101.9	1, 233	.000
	Phys Abuse	.303	.064	12.5.	1, 137	.001	Sex Abuse	.348	.044	15.5	1, 232	.000
							Disinhibition	.360	.013	4.6	1, 231	.034
Model 2: 2-Year BPD Symptoms	Neg Affect	.195	.195	27.1	1, 112	.000	Neg Affect	.179	.179	41.9	1, 193	.000
	Phys Abuse	.290	.095	14.9	1, 111	.000	Sex Abuse	.231	.053	13.2	1, 193	.000
Model 3: 4-Year BPD Symptoms	Neg Affect	.199	.199	27.8	1, 112	.000	Neg Affect	.121	.121	28.7	1, 209	.000
							Sex Abuse	.204	.083	21.7.	1, 208	.000
							Phys Abuse	.230	.026.	7.1	1, 207	.008

Regression Models

Model 1: In men, negative affectivity score accounted for 24% of the baseline BPD symptom variability ($p<0.001$) and physical abuse score added 6.4% unique variance ($p = .001$). In women, negative affectivity score accounted for 30.4% of the variability in baseline BPD symptoms ($p<.001$), sexual abuse score added 4.4% unique variance ($p<.001$), and disinhibition added 1.3% unique variance ($p=.034$).

Model 2: Negative affectivity score accounted for 19.5% of the 2-year BPD symptom variability in men ($p<.001$) and physical abuse added 9.5% unique variance ($p<.001$). In women, negative affectivity score accounted for 18% of the variability in 2-year BPD symptoms ($p<.001$) and sexual abuse added 5.3% unique variance.

Model 3: Negative affectivity score accounted for 20% of the variability in 4-year BPD symptoms in men ($p<.001$). In women, negative affectivity score accounted for 12% of the variability in 4-year BPD symptoms ($p<.001$), sexual abuse added 8.3% unique variance ($p<.001$) and physical abuse added 2.6% unique variance ($p<.008$).

Discussion and Future Research

As hypothesized, personality trait negative affectivity best predicted BPD symptoms at baseline, 2-year, and 4-year intervals, demonstrating its relation to stability of BPD symptoms for both men and women. CPA appears to account for more unique variance in BPD symptoms in men, while CSA accounts for more unique variance in BPD symptoms in women. Interestingly, CA plays a role the longitudinal stability of BPD symptoms in women but not in men. These findings are consistent with the a priori hypotheses and raise questions about the validity of the BPD diagnosis.

It is possible that in some cases, women with complex PTSD are misdiagnosed as having BPD, and BPD symptoms may be attributable to the effects of repeated childhood sexual abuse. It may also be that BPD and PTSD describe common elements of the same disorder, or that they are two separate disorders that co-occur in the presence of traumatic childhood experiences.

Future work will expand research to include examining the co-occurrence of BPD and PTSD in patients from the CLPS sample for my senior thesis that aims to elucidate patterns among factors that affect the longitudinal stability of BPD features and how they may differ between men and women.

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