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Age-Related Differences in Individual DSM Criteria for Borderline Personality Disorder

Stephanie D. Stepp, PhD and Paul A. Pilkonis, PhD

University of Pittsburgh Medical Center

Abstract

This study examined age-related effects of individual DSM criteria for borderline personality disorder (BPD) and symptoms of depression and anxiety in three groups: patients diagnosed with BPD, another personality disorder, or no personality disorder. The goal was to determine if distinctive age effects emerged within the BPD group. This mixed clinical and community sample ($N = 380$) ranged from 20–50 years old. Each participant was assessed for symptoms of axis I and II psychopathology. We found significant interactions for personality disorder group $\times$ age for the suicidal behavior and impulsivity criteria that reflected distinctive changes in the BPD group. The BPD group reported significantly more anxious and depressive symptoms. However, no main effect for age or personality disorder $\times$ age interaction emerged with symptoms. These results demonstrate that older individuals with BPD report less impulsivity and fewer suicidal behaviors, although symptoms of distress persist.

Longitudinal studies of BPD have demonstrated a negative relationship between the stability of the diagnosis and length of assessment interval (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2006; Tyrer, 2005; Skodol et al., 2002). These findings led researchers to examine which of the diagnostic criteria are most likely to remit and which are more resistant to change. The more enduring BPD features include impulsivity, affective instability, and anger, whereas those that are more likely to remit include self-injury, fears of abandonment, and identity disturbance (McGlashan et al., 2005; Zanarini, Frankenburg, Hennen, Reich, & Silk, 2005). Although these studies demonstrate the course of the syndrome, no study has yet examined how the individual symptoms may differentially manifest across the early- to middle-adult lifespan. There is conventional clinical wisdom that the more egregious behaviors (i.e., suicidal and other impulsive behaviors) soften as adults with BPD age, but no study has tested this phenomenon empirically (Stone, 1993). Additionally, it is of interest to know if individuals with other forms of psychopathology experience similar trajectories in terms of the individual BPD criteria.

The current study examined potential cohort effects of individual DSM BPD criteria in a primarily psychiatric sample. For each criterion, we compared age effects across three groups: those diagnosed with BPD, those diagnosed with another personality disorder (OPD), and those that do not meet criteria for a personality disorder (NoPD) in three age groups: 20–30, 31–40, and 41–50 years. Additionally, this study examined the effect of age and personality disorder (PD) group on symptoms of depression and anxiety. These findings inform our understanding of the relative importance of each BPD criterion and how the disorder may manifest differentially across the adult lifespan, providing clues about the trajectory of the disorder over 30 years of adult development.

Method

Procedure

Participants ($N = 380$) were recruited from psychiatric inpatient, psychiatric outpatient, medical, and university settings. Participants' ages ranged from 20–50 years ($M = 34.35$, $SD = 8.57$). To test for age differences, the sample was divided into three age groups: 20–30 year olds ($n = 153$, 40.3%), 31–40 year olds ($n = 110$, 28.9%), and 41–50 year olds ($n = 117$, 30.8%). The majority of the sample was female ($n = 248$; 65.3%). Three hundred seventeen participants (83.4%) identified themselves as Caucasian, 55 (14.4%) as African American, 6 (1.6%) as Asian American, and 2 as Hispanic (0.3%).

Eighty-three percent of the participants ($n = 314$) were solicited from inpatient and outpatient treatment programs at Western Psychiatric Institute and Clinic. Patients with psychotic disorders, organic mental disorders, and mental retardation were excluded, as were patients with major medical illnesses that influence the nervous system and might be associated with organic personality changes. Four percent of participants ($n = 16$) were diabetic patients not receiving any psychiatric treatment, and 13.0% ($n = 50$) were persons from the community not receiving either medical or psychiatric treatment. All study procedures were approved by the University of Pittsburgh Institutional Review Board. All participants agreed to participate voluntarily and provided written informed consent after receiving a complete explanation of the study.

Measures

Consensus Ratings of DSM-III-R PD Criteria—A complete description of the consensus rating process used in our research program has been provided in previous reports (Pilkonis et al., 1995). At intake each participant was interviewed for a minimum of three 2-hour sessions by a single interviewer. Assessments included structured diagnostic interviews of Axis I and II disorders and semistructured interviews of social and developmental history. After the evaluations, the primary interviewer presented the case to the research team at a 2- to 3-hour diagnostic conference. All available data were reviewed and discussed at this conference. Judges discussed the participant's standing on each of the *DSM-III-R* criteria¹ and assigned a consensus rating of zero (absent), 1 (present), or 2 (marked). Individual criterion ratings ≥ 1 were tallied to make diagnoses. Judges voted independently on the presence or absence of a personality disorder.

Based on this consensus procedure, 110 participants (28.9%) met criteria for BPD. One hundred thirty-six participants (35.8%) met criteria for a PD other than BPD (OPD), and 134 participants (35.3%) were deemed to not meet criteria for any PD (NoPD). Participants who were determined to have a PD met criteria for between 1 and 6 comorbid PDs, with a mean of 1.28 ($SD = 1.34$) disorders per person.

Distress—Symptoms of depression and anxiety were measured with two well-validated, commonly used instruments: (a) The Hamilton Rating Scale for Depression (Hamilton, 1960); and (b) The Hamilton Rating Scale for Anxiety (Hamilton, 1959). The mean scores were 14.79 ($SD = 8.31$) and 15.53 ($SD = 9.33$), respectively.

¹The data in this study were collected at three separate waves, although the procedures for each wave were virtually identical. The first wave of data collection ($n = 145$) began just before the advent of the *DSM-IV* and therefore contains data on only *DSM-III-R* PD traits. The remaining data ($n = 235$) were collected subsequent to the release of the *DSM-IV* and contain ratings on both the *DSM-III-R* and *DSM-IV* PD traits. The *DSM-IV* criteria set differs from the *DSM-III-R* set by the addition of the criterion for stress-induced paranoid and dissociative symptoms. To maximize the size of our sample, we elected to use the *DSM-III-R* criteria for all participants.

Results

Effect of PD and Age on BPD Criteria

A 3×3 multivariate analysis of variance (MANOVA) was performed on the 8 *DSM-III-R* criteria for BPD: unstable relationships, impulsivity, affective instability, intense anger, suicidal behavior, identity disturbance, feelings of emptiness, and frantic efforts to avoid abandonment. Independent variables were PD group (BPD, OPD, and NoPD) and age group (20–30, 31–40, and 41–50).

With the use of Wilks' Lambda criterion, the combined BPD criteria were significantly affected by PD group, $F(16, 728) = 41.97, p < .001$, age group, $F(16, 728) = 2.853, p < .001$, and their interaction, $F(32, 1344) = 1.554, p < .05$. The shape of the interaction with each BPD criterion was investigated. PD group $\times$ age group significantly affected impulsivity, $F(4, 380) = 4.29, p < .01$; partial $\eta^2 = .04$, and suicidal behavior, $F(4, 380) = 4.46, p < .01$; partial $\eta^2 = .05$, with changes that were distinctive in the BPD group (see Figure 1). For the BPD group, impulsivity declined after age 40 and the frequency of suicide behavior declined after age 30.

As expected, all BPD criteria were significantly affected by PD group (BPD > OPD > NoPD, with the exception of affective instability where BPD > OPD = NoPD). For the main effect of PD group, partial η^2 ranged from .16 (frantic efforts to avoid abandonment) to .40 (affective instability). Main effects of age group emerged with three criteria: impulsivity (20–30 > 31–40 > 41–50, partial $\eta^2 = .04$) suicidal behavior (20–30 > 31–40 > 41–50, partial $\eta^2 = .05$), and frantic efforts to avoid abandonment (20–30 > 41–50, partial $\eta^2 = .02$).

Effect of PD and Age on Distress

A 3×3 MANOVA was conducted on Hamilton scores: measure of depressive and anxious symptoms experienced in the past week. Consistent with previous analyses, independent variables were PD group (BPD, OPD, and NoPD) and age group (20–30, 31–40, and 41–50).

With the use of Wilks' Lambda criterion, the combined dependent variables were significantly affected by PD group, $F(4, 740) = 17.65, p < .001$. The association between PD group and overall distress was small, partial $\eta^2 = .09$. However, there was no significant effect of age group or the interaction of PD group and age group in the overall model.

The impact of the significant main effect revealed that both depression, $F(2, 380) = 34.27, p < .001$; partial $\eta^2 = .16$, and anxiety, $F(2, 380) = 31.76, p < .001$; partial $\eta^2 = .15$, scores significantly differed by PD group. Post-hoc comparisons revealed that both depression and anxiety scores were significantly higher for the BPD group when compared to the OPD and NoPD groups. Similarly, distress scores for the OPD group were significantly higher when compared to the NoPD group.

Discussion

The main finding of interest was that the impulsive and suicidal behavior criteria were significantly affected by the interaction of PD group and age. For the BPD group, impulsive and suicidal behaviors decreased with age (>age 40 and >age 30, respectively) when compared to OPD and NoPD groups. These findings correspond to the discussion in research and clinical literatures regarding the behavioral “burn out” of patients with BPD (Stone, 1993). Specifically, these findings provide empirical support for the hypothesis that these patients engage in fewer impulsive and suicidal behaviors as they age.

Secondly, emotional distress was highest in the BPD group followed by those with another personality disorder. Those with no PD had the lowest scores of emotional distress. Age did

not affect level of emotional distress. This finding suggests that even though older adults with BPD may engage in fewer impulsive behaviors, these individuals report experiencing similar levels of depression and anxiety when compared to their younger counterparts. Additionally, we can interpret these findings as giving us insight into the longitudinal course of the disorder. In younger years, those with BPD are likely to engage in self-harm and other dyscontrolled behaviors, such as substance use, binge drinking, and risky sex. As these individuals age, they are less likely to engage in these behaviors but are just as likely to experience high levels of psychological distress. It does not appear that behavioral control alleviates depressive and anxious symptoms. This is consistent with Linehan's description of "quiet desperation" that individuals with BPD experience after they have effectively learned to manage their impulsive behaviors (Linehan, 1993).

Given the cross-sectional nature of this study, conclusions regarding the course of BPD and symptoms of distress are tentative since measurement did not occur longitudinally within individuals. Thus, these findings may not reflect an actual decrease in symptom patterns over the early- to middle-adult lifespan. It is possible that the older group as a whole may have been less impulsive and suicidal than the other age groups. Nonetheless, these findings are consistent with clinical impressions regarding the course of BPD symptoms.

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Panel 1a

Panel 1b

FIGURE 1.
Effect of personality disorder group $\times$ age group on the BPD criteria for impulsivity and suicidal behavior.