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Personality organization in borderline patients with a history of suicide attempts

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ABSTRACT

Suicide attempts (SA) are common in patients with Borderline Personality Disorder (BPD). Recent studies focus on aspects of personality associated with risk for SA such as deficits in affect regulation including impulse control and aggression. The current study examines associations of dysfunctional personality organization, psychiatric comorbidities as well as non-suicidal self-injury (NSSI) with SA in a sample of 68 BPD outpatients. Patients with a history of SA yielded higher scores in personality domains of aggression, especially self-directed aggression. Further, a history of SA was associated with a worse general level of personality organization and a higher prevalence rate of NSSI and substance abuse disorder. The results demonstrate that SA in BPD patients might be regarded as a manifestation of impaired personality functioning rather than mere state variables and symptoms. Moreover, these findings might have implications for indication, treatment, and prognosis of Borderline Personality Disorder.

1. Introduction

Borderline Personality Disorder (BPD) is a common disorder with a prevalence of 10–20% in psychiatric populations (Chapman et al., 2005) causing 30% of inpatient psychiatric healthcare costs (Bohus and Schmahl, 2007). It is the only mental disorder including recurrent suicidal or non-suicidal self-injurious behavior as a diagnostic criterion (Wittchen et al., 1997).

Suicide attempts (SA), a risk factor for completed suicide (Brent, 2011), are common in BPD with a prevalence of 10–26% (Oldham, 2006). Non-suicidal self-injurious behavior (NSSI) is even more prevalent in this group with rates up to 50% (Chapman et al., 2005), and is a risk factor for SA (Brent, 2011). However, even though NSSI and SA can co-occur, especially among clinical samples (Soloff et al., 2005; Guertin et al., 2001) both behaviors seem to constitute different diagnostic categories as suggested in Section 3 of the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

Current scientific approaches consider personality organization as being strongly related to the severity of personality disorders (Fischer-Kern et al., 2010; Horz et al., 2010). According to Rudolf et al. (2008), personality organization can be seen as the availability of self-regulating processes which enable an intra-psychical and interpersonal balance. Besides identity diffusion and moral decision making, deficits in affect regulation such as impulse control and aggression are important aspects of personality organization and are essential in the development of suicidal behavior (McGirr et al., 2007). In general psychiatric patients who attempt suicide seem to suffer from a significantly more severe psychopathology, than patients without SA (Hamza et al., 2012). In BPD patients there is some evidence regarding a relation between suicide attempts and impaired impulse control as well as higher scores on domains of aggression compared to those who do not attempt suicide (Zouk et al., 2006; Mcgirr et al., 2007). If affect regulation mechanisms are dysfunctional, a combination of increased negative feelings like anger, guilt, or self-hatred can cause aggressive tendencies against oneself (Mangnall and Yurkovich, 2008).

Realizing personality organization as a model to investigate severity and complexity of personality disorders and regarding suicide attempts as an important and highly prevalent aspect in BPD, the aim of the current study was to provide data on personality organization in BPD patients with SA. We hypothesize a history of SA in BPD patients to be associated with an impaired personality organization as well as

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with higher scores of aggression. Further we examine comorbid psychopathology in suicide attempters on Axis I and II as well as in terms of NSSI.

2. Methods

2.1. Participants

All women and men fulfilling the diagnostic criteria for Borderline Personality Disorder (DSM-IV-TR) at the age of 18–60 years, who were in a position to understand the information of the study and gave personal consent, were included into the study. A total number of 71 patients from the outpatient unit of the Department of Psychoanalysis and Psychotherapy of the Medical University of Vienna referred to the study investigators with 68 meeting diagnostic criteria of BPD according to SCID-II. Hence, the examination of personality organization and self-harm behaviors was offered to 68 patients diagnosed with BPD. Exclusion criteria were lack of German language skills and acute mental health conditions, like psychotic episodes, acute suicidal crises or severe depressive episodes; however, no patients needed to be excluded. The diagnostic interviews were administered by an exercised and trained psychologist.

The study protocol was approved by the Ethics Committee of the Medical University of Vienna. Written informed consent was obtained from the study subjects after a complete description of the study.

2.2. Assessment measures

Each patient completed one self-report questionnaire and received three structured clinical interviews for the purpose of the study.

2.2.1. Self-harm behavior questionnaire

The Self-Harm Behavior Questionnaire (SHBQ; Gutierrez et al., 2001) contains subscales that assess non-suicidal self-injury (NSSI), suicide attempts (SA), suicidal ideation and suicide threats (e.g. "Have you ever attempted suicide?"; "Have you ever hurt yourself on purpose without wanting to die?"). The present study focuses on lifetime NSSI and SA. Further, the frequency of NSSI and SA was assessed ("How often have you intentionally injured yourself/attempted suicide?"), with the answers ranging from "1" to "4 times or more". The SHBQ allows to specify the methods of past SA (intake of drugs, physical harm and hanging, choking, shooting oneself, or intended accident). The German version of the SHBQ has been previously validated in a patient sample showing satisfying reliability and convergent validity (Fliege et al., 2006).

2.2.2. Structured Interview of Personality Organization

Personality organization was measured by the German version of the Structured Interview of Personality Organization (STIPO-D; Clarkin et al., 2004). This interview reflects a psychodynamic concept of personality organization, measured by seven dimensions of personality: (1) identity consolidation, (2) quality of object relations, (3) use of primitive defenses, (4) quality of aggression, (5) adaptive coping versus character rigidity, (6) moral values, and (7) reality testing (Clarkin et al., 2004). One-hundred items in total are rated on a three-point scale, each, the domains are assessed on a five-point scale from one (no pathology) to five (severe pathology). Finally, the level of personality organization is scored on one of six levels: normal, neurotic I, neurotic II, borderline I, borderline II, and borderline III. An examination of the psychometric qualities of the German Version of the STIPO (Doering et al., 2013) showed satisfying interrater reliability with intraclass correlations ranging from 0.72 for reality testing and 0.97 for primitive defenses. They reported generally high internal consistency for the seven STIPO domains with Cronbach's alphas ranging from 0.69 (Reality Testing) to 0.86 (Identity). Psychometric values of the STIPO in the current study showed a satisfying internal consistency with Cronbach's Alpha ranging from 0.87 for identity to 0.68 for reality control.

2.2.3. Structured Clinical Interviews for Axis I and Axis II disorders

The German version of the Structured Clinical Interview for DSM-IV, Axis I and the Structured Clinical Interview for DSM-IV, Axis II (Wittchen et al., 1997, Fydrich et al., 1997) were used to assess psychiatric diagnoses and personality disorders.

2.3. Statistics

Data were analyzed using IBM SPSS Statistics 20.0. Descriptive Statistics give demographic information using arithmetic means, standard deviations and frequencies. Differences in demographic variables, Axis I and Axis II diagnoses between attempters and non-attempters were tested using Student's *t*-test and Chi-Square (Fisher's Exact Test) depending on the structure of the data. Student's *t*-test was conducted to assess differences in personality domains. Two-sided statistical analyses were performed with significance level set at $p < 0.05$. Characteristics which differed between the groups were analyzed to predict suicide attempts by a binary logistic regression model.

Table 1
Characteristics of Borderline patients with suicide attempts and without ($N=68$).

Variables	Suicide attempt		Test	*p*
	No ($N=47$)	Yes ($N=21$)		
Age (mean ± S.D.)	26.6 ± 5.39	28.19 ± 7.45	$T=-1.050$	0.315
Sex (%)				
Female	73.9	85.7	$\chi^2=0.46$	0.740
Male	26.1	14.3		
Marital status (%)				
Unmarried	93.5	81.0	$\chi^2=3.91$	0.141
Married	4.3	4.8		
Divorced	2.2	14.2		
Educational status (%)				
Required schooling	32.6	33.3	$\chi^2=0.14$	0.933
University entrance diploma	18.6	22.2		
University	48.8	44.4		
NSSI (%)	46.8	76.2	$\chi^2=5.08$	0.024
Disorders Axis I (%)				
Affective disorders	51.1	71.4	$\chi^2=2.53$	0.283
Anxiety disorders	59.1	61.9	$\chi^2=0.47$	0.976
Substance abuse disorders	47.7	66.7	$\chi^2=12.55$	0.014
Eating disorders	15.9	28.6	$\chi^2=2.18$	0.337
Disorders Axis II (%)				
Avoidant	40.4	47.6	$\chi^2=0.31$	0.385
Dependent	10.6	14.3	$\chi^2=0.19$	0.474
Obsessive-compulsive	46.8	28.6	$\chi^2=1.99$	0.126
Negativistic	40.4	38.1	$\chi^2=0.03$	0.537
Depressive	42.6	42.9	$\chi^2=0.00$	0.594
Paranoid	46.8	38.1	$\chi^2=0.45$	0.345
Schizoid	14.9	23.8	$\chi^2=0.79$	0.286
Schizotypal	19.1	9.5	$\chi^2=0.99$	0.269
Histrionic	17.0	19.0	$\chi^2=0.04$	0.544
Narcissistic	40.4	33.3	$\chi^2=0.31$	0.391
Borderline	100	100		
Antisocial	19.1	23.8	$\chi^2=0.19$	0.445

3. Results

Participants were on average 27.1 (S.D.=6.1) years old. Fifty-three (78%) subjects were female, the majority (90%) was unmarried. Two-thirds of the subjects had at least an university entrance qualification, including 46.8% reporting an university degree. Detailed information about the demographic characteristics of the subgroups is presented in Table 1. In the whole sample 21 (31%) patients reported a history of attempted suicide and 47 (69%) patients did not. Only one patient of those reporting SA did not report NSSI at any time in the past.

According to items of the SHBQ, suicide was most often attempted by the intake of two or more drugs simultaneously (67%) and immediate physical harm, such as self-cutting (48%), followed by the intake of more than 10 pills of one drug (33%), and by violent methods, such as hanging, self-suffocating or shooting (19%). One third (29%) of the subjects with SA reported one past attempt, 33% reported two and 38% three or more attempts.

Within our BPD sample, suicide attempters did not differ significantly from those who did not attempt suicide with regard to age ($t(64)=-1.05$, $p=0.315$), sex ($\chi^2(1)=0.46$, $p=0.740$), marital status ($\chi^2(2)=3.91$, $p=0.141$) and educational status ($\chi^2(2)=0.14$, $p=0.933$). Suicide attempters significantly more often engaged in NSSI ($\chi^2(1)=5.08$, $p=0.024$), but did not show any other significant differences in terms of Axis-I and Axis-II

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