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# Narcissism as a protective factor against the risk of self-harming behaviors without suicidal intention in Borderline Personality Disorder

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## ABSTRACT

**Background and Objectives.** The spectrum of suicidal behavior is a core factor of the prognosis and care of Borderline Personality Disorder (BPD). The aim of this study is to identify possible BPD specific personality traits that could act as protective factors of nonsuicidal self-injuries (NSSI).

**Methods.** We performed a cross-sectional, observational and retrospective study of a sample of 134 BPD patients aged from 18 to 56. We assessed the presence or absence of suicidal behavior and NSSI as well as different sociodemographic variables. Millon, Zuckerman-Kuhlman and Structured Clinical Interview for DSM personality questionnaires were also applied. The analysis of the association between variables was carried out with a multivariate negative binomial logistic regression model.

**Results.** A statistically significant association between NSSI and suicidal behavior was found. Elseways, statistically significant differences were also found in the association between NSSI and the SCID variables for Narcissistic Disorder, which appears as protective variables. These results provide an idea of the dynamic relationship between NSSI and suicidal behavior in a BPD population with particularly severe characteristics.

**Conclusions.** The role of narcissistic personality traits appears to be important in identifying protective factors for NSSI and suicidal behavior in BPD patients and could be the subject of further research projects.

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**Keywords:** borderline personality disorder; narcissism; nonsuicidal self-injury; protective factors against suicide; suicidal behavior.

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## RESUMEN

**Introducción y objetivos.** El espectro de la conducta suicida tiene un carácter nuclear en el pronóstico y manejo del Trastorno Límite de la Personalidad (TLP). El objetivo de este estudio es identificar posibles rasgos de personalidad específicos del TLP que puedan actuar como protectores de las autolesiones sin finalidad suicida (ASFS).

**Método.** Se realiza un estudio transversal, observacional y retrospectivo, de una muestra de 134 pacientes de entre 18 y 56 años con TLP. La evaluación clínica se llevó a cabo con un cuestionario que valoraba la presencia o no de conductas suicidas (CS) y ASFS y distintas variables sociodemográficas. También se realizaron cuestionarios de personalidad: Inventario Clínico Multiaxial de Millon II, Cuestionario de Personalidad de Zuckerman-Kuhlman y la entrevista Clínica Estructurada para el eje II del DSM (SCID). La asociación entre variables se analizó a través de un modelo de regresión logística multivariado y binomial negativa

**Resultados.** Se encuentra una asociación estadísticamente significativa entre la CS con las ASFS y entre realizar mayor número de intentos de suicidio y la presencia de ASFS. Respectivamente, las ASFS se asocian de forma estadísticamente significativa con los intentos de suicidio. Por otro lado, se objetivan diferencias estadísticamente significativas en la asociación de ASFS con las variables en el SCID Trastorno Narcisista, apareciendo como variable con efecto protec-

tor. Los resultados presentados proporcionan una idea de la relación dinámica entre NSSI y SB en una población TLP con características de gravedad.

**Conclusiones.** El papel de los rasgos de personalidad narcisistas puede ser importante a la hora de identificar factores protectores para las NSSI y SB en TLP y podría ser objeto de desarrollo de ulteriores proyectos de investigación.

**Palabras claves:** Trastorno Límite de la Personalidad, narcisismo, autolesión sin finalidad suicida, factores protectores ante el suicidio, conducta suicida

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## INTRODUCTION

Borderline Personality Disorder (BPD) is a disorder of multifactorial etiology characterized by suicidal and parasuicidal behaviors that lead to an important dysfunctionality and a greater deterioration in psychosocial functioning [1,2]. Completed suicide rate amid BPD patients is between 5 and 10%, which is about 400-times higher than the estimated for general population [3,4].

The spectrum of suicidal behavior (SB) and related behaviors takes into account behaviors that cause direct and deliberate harm to oneself [5,6]. Nonsuicidal self-injury (NSSI), SB, and completed suicide itself are included[5,7,8]. NSSI and SB differ in intent, frequency, and lethality [9–11]. For some authors, NSSIs are a risk factor and somehow precursor behaviors for future appearance of SB [12–15]. Likewise, the iceberg model has been used to illustrate the great prevalence of undetected self-harm behaviors as part of a spectrum that encloses SB and finishes with completed suicide [16,17]. These are potencial harmful behaviors which tend to decrease in frequency with age [18–20]. These behaviors in BPD are associated with other clinical characteristics such as some personality traits, especially hopelessness and impulsiveness [21,22].

In BPD and in other pathologies, some studies speak not only of risk factors but also of "protective" variables against NSSI and SB [23,24]. These studies suggest there is a balance between reasons to live and reasons to die in relation to the presentation of suicidal behaviors[25]. The "reasons to live" could moderate the risk of SB and favor the factors of resilience [26]. Some of these protective factors described are the emotional support of a companion or family, integration into social relationships, pregnancy and parenthood or some specific patterns of internet use [27]. Other authors talk about the regulatory emotional self-efficacy as a protective factor against the NSSI [8,28]. Likewise, narcissistic personality traits have been associated with less impulsiveness and consequently less serious autolytic attempts in patients with BPD [29].

Regarding the NSSIs, the heterogeneity of both the methodology used and the population studied in the different studies makes it difficult to specify "protective" variables for these behaviors [30,31]. Furthermore, given the concurrence of NSSI and SB, many studies do not use any specific methodology to analyze NSSI in a well differentiated way [32,33].

Based on the mentioned above, the present work is proposed to evaluate possible personality traits specific to BPD that could act as protective factors against NSSI, in order to be able to be identified in clinical practice.

## METHODS

We performed a cross-sectional, observational and retrospective study which aimed to analyze the relationship between different personality traits and NSSI using a sample of 134 patients between 18 and 56 years old, diagnosed with BPD according to DSM-5 criteria[34] . These patients were recruited consecutively in the admission process to the Personality Disorder Day Hospital of the *Hospital Clínico San Carlos* in Madrid (Spain), which is a specific and nationwide reference unit for the treatment of patients with this diagnosis.

Patients who met criteria for other diagnoses, had an IQ of less than 85 or severe neurological disease, a history of traumatic brain injury, severe medical illness, current abuse of psychoactive substances –except for tobacco- or declined to participate in the study were excluded. The Hospital Ethics Committee approved the evaluation protocol and all the participants signed the informed consent.

For the clinical evaluation we used a questionnaire that assessed the presence or absence of SB and NSSI (differentiating these behaviors from suicide attempts by the absence of intentionality to die), and also asked about the number of previous autolytic attempts and their characteristics. The following questionnaires and interviews were also carried out:

- Millon Clinical Multiaxial Inventory (MCMI-II)[35].
- Zuckerman-Kuhlman Personality Questionnaire (ZKPQ) [36].
- Structured Clinical Interview for DSM-IV (SCID-II) [37].

Patients were individually evaluated by a psychiatrist and a clinical psychologist for approximately 120 minutes in the Personality Disorder Day Hospital of the *Hospital Clínico San Carlos* in Madrid (Spain). In order to reduce variability, all tests were performed at similar times (between 10 and 12 a.m.).

## STATISTICAL ANALYSIS

The mean and the standard deviation were used for the description of continuous data and the percentages for categorical data. Regarding the quantitative variables, their concordance to a normal distribution was determined using the Kolmogorov-Smirnov test. The sample was divided into two groups according to whether or not there was a history of NSSI. Variable comparisons were made using Chi-squared test and Student's t-test. The association between variables was analyzed through a multivariate negative binomial logistic regression model. Data analysis was performed using the SPSS statistical package, version 19.0. The significance level established for all of the hypothesis testing was 0.05.

## RESULTS

The 134 patients participating in the study were divided into two groups according to their gender: 37 men (27.6%) and 97 women (72.3%). The mean age was 30 years old, with a standard deviation of 8.74; in a range between 18 and 56 years. The main socio-demographic characteristics of the sample are shown in **Table 1.**

A total of 104 patients (77.6%) reported history of at least one suicide attempt (SA), while 30 patients (22.4%) did not have any history of suicidal behavior, as shown in **Figure 1**. The mean number of suicide attempts per patient was 2.69, with a standard deviation of 1.774. In contrast, 86 patients (64.2%) reported history of NSSI, whilst 48 patients (35.8%) did not report any previous NSSI, as described in **Figure 1**.

**Table 1** Socio-demographic variables of the sample

| | n | Percentage (%) |
|---|---|---|
| **Gender** *(N=134)* | | |
| *Male* | 37 | 27,6 |
| *Female* | 97 | 72,3 |
| **Ethnicity** *(N=134)* | | |
| *White/Caucasian* | 116 | 86,6 |
| *Latinamerican/Hispanic* | 3 | 2,5 |
| *Other* | 3 | 2,5 |
| **Civil status** *(N=114)* | | |
| *Single* | 83 | 72,8 |
| *Married or with couple* | 26 | 22,8 |
| *Divorced or separated* | 5 | 4,4 |
| **Children** *(N=134)* | | |
| *No* | 109 | 81,4 |
| *Yes* | 25 | 18,6 |
| **Number of children** *(N=134)* | | |
| *0* | 109 | 81,4 |
| *1* | 15 | 11,2 |
| *2* | 7 | 5,2 |
| *3 or more* | 3 | 2,2 |
| **Current activity** *(N=134)* | | |
| *Unemployed* | 78 | 58,2 |
| *Employed* | 16 | 11,9 |
| *Student* | 24 | 17,9 |
| *On leave* | 16 | 11,9 |
| **Dependency** *(N=134)* | | |
| *Yes* | 107 | 79,9 |
| *No* | 27 | 20,1 |
| **Education** *(N=134)* | | |
| *Elementary School* | 18 | 13,5 |
| *Secondary School* | 53 | 39,8 |
| *Vocational training* | 27 | 20,3 |
| *University* | 35 | 26,6 |
| **Socioeconomic status** *(N=134)* | | |
| *Low* | 20 | 22,7 |
| *Mid-low* | 37 | 42 |
| *Mid-high* | 31 | 35,2 |

The different scores above or below the cutoff threshold for the diverse personality traits according to SCID can be observed in **Figure 2**. Likewise, the different means, standard deviations and median of the different subscales of the

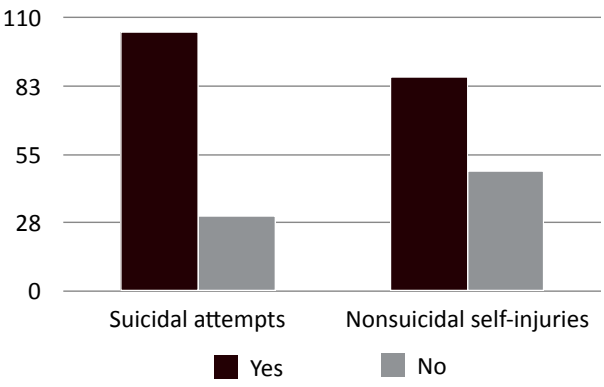


**Figure 1** Suicidal and related behaviours (n=134)

Zuclerman-Kuhlman Personality Questionnaire (ZKPQ) and the Millon Multiaxial Clinical Inventory (MCMI-II) are shown in **Table 2.**

According to the univariate analysis, statistically significant differences were observed in the association between NSSI and SCID variables for Narcissistic Disorder, which appear as a variable with a protective effect (**Table 3**). The higher the score in the narcissistic SCID variables, the lower the association between BPD and NSSI. On the opposite, T-scores for equal means in the neuroticism-anxiety dimension of the ZKPQ (p=0.031) and in the phobic (p=0.045) and antisocial (p=0.027) subscale of the MCMI-II appear as risk factors, as shown in **Table 4.**

The analysis also showed that SCID scores for Obsessive Compulsive (p=0.083) and Passive-Aggressive (p=0.068) Disorders almost reach statistical significance. Obsessive and Passive-aggressive personality traits are close to statistical significance, with the latter performing as protective against self-harming behavior without suicidal intention, likewise to narcissistic personality traits.

**Table 2** ZKPQ and MCMI-II questionnaires score

| | Mean | Standard deviation | Median |
|---|---|---|---|
| **ZKPQ (N=73)** | | | |
| **Neuroticism-anxiety** | 14,79 | 4,29 | 17 |
| **Activity** | 7,49 | 3,42 | 7 |
| **Sociability** | 6,10 | 3,94 | 6 |
| **Impulsivity and sensation seeking** | 9,81 | 5,12 | 10 |
| **Aggression and hostility** | 9,48 | 3,33 | 10 |
| **MCMI-II (N=68)** | | | |
| **Schizoid** | 73,07 | 27,08 | 70 |
| **Avoidant** | 79,62 | 25,99 | 83 |
| **Dependent** | 63,49 | 35,88 | 72,50 |
| **Histrionic** | 66,56 | 29,90 | 68,50 |
| **Narcissistic** | 66,38 | 32 | 70 |
| **Antisocial** | 78,53 | 28,23 | 79 |
| **Aggressive-sadistic** | 73,47 | 27,46 | 73 |
| **Compulsive** | 54,65 | 28,98 | 51 |
| **Passive-aggressive** | 88,24 | 26,78 | 91,50 |
| **Self-defeating** | 86,24 | 21,20 | 90,50 |
| **Schizotypal** | 84,14 | 25,07 | 82 |
| **Borderline** | 94,20 | 24,26 | 101,50 |
| **Paranoid** | 71,38 | 20,44 | 67 |

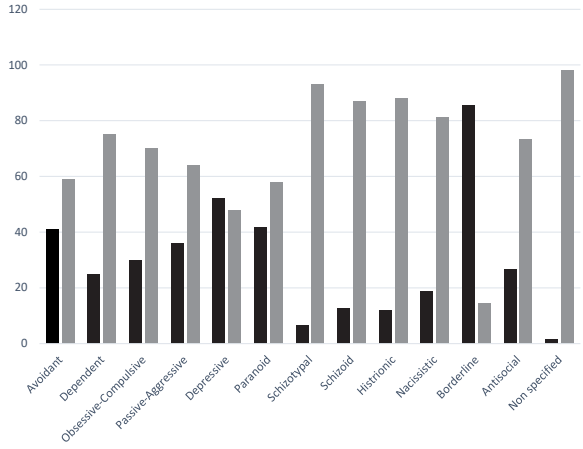


**Figure 2** Suicidal and related behaviours (n=134)

According to the multivariate analysis, there is a statistically significant association between NSSI and narcissistic personality traits (p=0.022), with an Odds Ratio of 0.314 with a 95% confidence interval (0.117-0.844). As mentioned before, the association with this type of personality traits has a "protective" character, since higher scores on narcissistic traits associate with less risk of self-harming behavior without suicidal intention.

Using logistic regression with the multivariate analysis, a statistically significant association (p=0.038) was found between SA and NSSI, with an Odds Ratio of 3.218 with

**Table 3** SCID categories scores

| | $c^2$ | p |
|---|---|---|
| Schizoid | 0,680 | 0,409 |
| Dependent | 2,203 | 0,138 |
| Histrionic | 0,007 | 0,645 |
| Narcissistic | 5,817 | 0,016 |
| Antisocial | 2,323 | 0,127 |
| Passive-aggressive | 3,329 | 0,068 |
| Schizotypal | 0,648 | 0,932 |
| Borderline | 2,243 | 0,134 |
| Paranoid | 0,599 | 0,439 |
| Depressive | 0,368 | 0,544 |
| Avoidant | 0,062 | 0,083 |
| Obsessive-compulsive | 3,001 | 0,083 |
| Non specified | 0,154 | 0,695 |


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**Table 4** T-scores for equal means of nonsuicidal self-injuries (NSSI).

| | p value of sig. (bilateral) | Mean difference | 95% CI for the difference |
|---|---|---|---|
| **ZKPQ** | | | |
| Impulsivity | 0,620 | 0,616 | -1,853-3,085 |
| Neuroti-cism-anxiety | 0,031 | 2,216 | 0,212-4,219 |
| Aggressive and hostility | 0,448 | -0,613 | -2,213-0,988 |
| Activity | 0,187 | 1,090 | -0,541- 2,720 |
| Sociability | 0,322 | -0,945 | -2,837- 0,946 |
| **MCMI- II** | | | |
| Schizoid | 0,828 | -1,475 | -14,972- 12,022 |
| Avoidant | 0,045 | 12,880 | 0,317-25,443 |
| Dependent | 0,485 | 6,272 | -11,549- 24,092 |
| Histrionic | 0,676 | -3,127 | -18,013- 11,759 |
| Narcissistic | 0,487 | -5,570 | -21,464- 10,324 |
| Antisocial | 0,027 | -15,339 | -28,899- (-1,779) |
| Aggresive-sadistic | 0,590 | -3,704 | -17,364- 9,956 |
| Compulsive | 0,568 | -4,148 | -18,563- 10,267 |
| Passive-aggressive | 0,120 | 10,341 | -2,766- 23,449 |
| Self-defeating | 0,083 | 9,113 | -1,218- 19,444 |
| Schizotypal | 0,188 | 8,217 | -4,116- 20,550 |
| Borderline | 0,175 | 8,192 | -3,733- 20,117 |
| Paranoid | 0,835 | 1,064 | -9,122- 11,250 |

a 95% confidence interval (1.069-9.690). Using a negative binomial regression with the multivariate analysis, self-harming behavior without suicidal intention was also significantly related to a greater number of SA (64.2%). On their side, NSSIs were statistically significantly associated with SAs (p=0.006) with an Odds Ratio of 4.037 and a 95% confidence interval (1.491-10.932).

## DISCUSSION

Despite certain differences in empirical findings that show different estimates of the importance of the diverse pathological personality traits in BPD, the theory that states that patients diagnosed with BPD have a particularly high risk of presenting suicidal and related behaviors remains widely accepted [20,38–42]. This statement has been extensively corroborated and does not allow many discussion. The controversy springs when analyzing BPD in different personality traits and the criteria used to define the diagnosis, as well as in the degree that each of these factors contribute separately to the predisposal or protection from suicidal behaviors [43].

The main finding of the present work is the role of narcissistic personality traits as a protective factor against NSSI in BPD patients. In line with this, Blasco-Fontecilla H et al. (2009) found that narcissistic personality traits are associated with less impulsiveness and consequently less serious suicide attempts [29]. In our case, we found an association between narcissistic personality traits and NSSIs but not SAs, though both conducts are closely related and NSSI has proven to be a robust predictor of SB [12,44].

In the present study, narcissistic personality traits have a protective effect over conducting NSSI, in such a way that higher scores on the scale mean lower risk of NSSI. One explanation for this is that perhaps those BPDs with greater traits of greatness in behavior or fantasy, with greater need for admiration and lack of empathy; in the spectrum of suicidal behavior prioritize the suicide attempt itself rather than the parallel strategies of emotional regulation.

Unlike Sher L et al. (2016) and Euler S et al. (2018), who have made reference to the importance of narcissistic personality traits in BPD, narcissism has not been divided into different subgroups or distinctive traits in our study. These authors distinguished "vulnerable" from "grandiose" narcissists, and this fact probably makes vary their degree of association with NSSI from the one that we found in our population group for the set of all narcissistic traits [43,45]. Other authors find that these narcissistic traits are risk factors for SB but not for gestures [46].

Narcissistic traits seem to have relevant consequences on the interpersonal relationships of people who have such characteristics, whether it be only as personality traits or as the whole construct that meets the criteria for a Personality Disorder [47]. These consequences are often negative consequences, for this is people who manage dominance relations improperly in close relationships. However, given the case of patients with BPD, narcissistic traits could have a protective effect against some of the serious repercussions of the typical imbalance of this personality structures, such as NSSI and secondly suicidal behavior. In addition, it could also be related to a more effective emotional self-regulation

in narcissistic personalities, indicated by some authors as a protective factor against NSSI [28].

The main methodological limitation of the design of this paper is that it is an observational, descriptive and cross-sectional study, with concurrent and retrospective temporality. This design model does not allow causal links to be established between the associations found and it does not have a statistical power comparable to that of a prospective study.

In conclusion, the results presented provide an idea of the dynamic relationship between nonsuicidal self-injuries and suicidal behavior in a BPD population with particularly severe characteristics. The role of narcissistic personality traits appears to be important in identifying protective factors for NSSI and SB in BPD patients and could be the subject of further research projects. When compared to a complex and heterogeneous construct such as BPD, nonsuicidal self-injuries and narcissistic personality traits are easier to define and identify by General Practitioners or professionals form Education Centres. Therefore, narcissistic personality traits could be an important and useful indicator to consider therapeutically on an early intervention in BPD.

## ETHICAL CONSIDERATIONS

The data used in this analysis consist of medical records without opposition to data collection. The *Hospital Clínico San Carlos* Ethics Committee approved the evaluation protocol and all the participants signed the informed consent.

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## CONFLICT OF INTEREST

Each named author has substantially contributed to conducting the underlying research and drafting this manuscript. Additionally, to the best of our knowledge, the named authors have no conflict of interest, financial or otherwise.

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