BMC Psychiatry

RESEARCH Open Access

# Is adults' borderline personality disorder associated with their attachment experiences, rejection and mental security? A cross-sectional study

Mojdeh Askari[1,2], Mohammad Ali Zakeri[3,4], Alaa Hamza Hermis[5], Xiao Xu[6], Sri Widowati[7] and Reza Mohammadmehr[8*]

## Abstract

**Background** Borderline personality disorder (BPD) is highly correlated with other mental disorders and poses significant psychological and social risks both to individuals and to society. This study aims to investigate the relationship between attachment, perceived rejection, and psychological security with BPD.

**Methods** This cross-sectional correlational study was conducted on 89 BPD patients. The BPD patients was selected using a convenience sampling method. The instruments used in this study included the demographic characteristics form, the Rejection Sensitivity Perception Scale (RSPS), the Revised Adult Attachment Scale (RAAS), the Maslow's Psychological Security scale and the Borderline Personality Inventory (BPI). Data were analyzed using SPSS version 22, employing Pearson correlation and regression analysis methods.

**Results** The mean scores of BPI were 25.59 ± 5.19. The mean scores for perceived rejection and attachment were 7.71 ± 3.52 and 35.76 ± 6.64, respectively. We found a positive significant correlation between perceived rejection ($r = 0.35$, $p = 0.001$), attachment ($r = 0.25$, $p = 0.017$) and psychological and social security ($r = 0.55$, $p < 0.001$) with BPI. The results of multivariate linear regression indicated that psychological and social security, perceived rejection, and gender predicted 40% of the variance in BPD ($R^2 = 40\%$) ($p < 0.05$).

**Conclusions** In the present study, attachment, rejection, and sense of security were found to be associated with BPD. To prevent BPD, it is essential to consider factors such as attachment, rejection, and security. Therefore, mental health care providers are advised to plan and implement appropriate interventions to identify and improve these variables, thereby enhancing related health outcomes.

**Keywords** Personality disorder, Attachment experiences, Rejection, Mental security, Borderline personality disorder

*Correspondence:
Reza Mohammadmehr
rezamohammadmehr@gmail.com
[1]Clinical Psychology, Islamic Azad University Qom Branch, Qom, Iran
[2]Association of Psychologists, Counselors and Educational Sciences of Qom Province, State Welfare Organization, Ministry of Science and Research, Qom, Iran
[3]Non-Communicable Diseases Research Center, Rafsanjan University of Medical Sciences, Rafsanjan, Iran
[4]Clinical Research Development Unit, Ali-Ibn Abi-Talib Hospital, Rafsanjan University of Medical Sciences, Rafsanjan, Iran
[5]AL-Dewaynia, Nursing College, Al-Qadisiyah University, Diwaniya, Iraq
[6]Department of Nursing, Nantong Health College of Jiangsu Province, Nantong, China
[7]Department of Nursing, Faculty of Health Sciences, University Muhammadiyah of Malang, Malang, Indonesia
[8]Health Psychology, Islamic Azad University Qom Branch, Qom, Iran

## Introduction

Personality disorders are among the most significant social and medical issues [1]. The prevalence of these disorders in the general population ranges from 11 to 23%, which is alarming [2]. BPD is one type of personality disorder in Cluster B [3]. It is a major psychological disorder characterized by severe clinical manifestations, with an approximate prevalence of 1–2% over a lifetime and 0.5–4.1% in the general population, demonstrating a pattern of instability in relationships, mood, impulsivity, and self-image [4]. BPD is a severe mental health condition characterized by emotional instability, identity disturbances, and interpersonal difficulties. Recently, factors influencing the development and maintenance of BPD have gained significant attention [5]. BPD is marked by excessive emotional reactivity, interpersonal instability, excessive sensitivity to abandonment, and inadequate self-perception in adulthood [6]. Fear of abandonment, sensitivity to rejection, and intolerance of loneliness may underlie many common interpersonal difficulties in BPD, leading to turmoil, maladaptive behaviors, and conflicts in interpersonal and marital relationships [7]. It can be argued that individuals with BPD experience insecurity precisely when they are most intimate with others due to concerns about dependency and rejection, yet they do not express these concerns openly [8].

Another component contributing to turmoil in individuals with BPD is their attachment style [9]. Some research indicates a relationship between attachment style and BPD, with attachment style being one of the most important factors in interpersonal interactions that develops in childhood and persists into later years, influenced by the environment in which one grows up [10]. Attachment theory suggests that early interactions with caregivers shape an individual's relationships. Insecure attachment, particularly disorganized and preoccupied styles, has been consistently associated with BPD [11]. Some studies have shown that adults with BPD often report a history of childhood trauma or inconsistent caregiving, which disrupts the development of secure attachment [9]. In adulthood, these insecure attachment patterns can manifest as fear of abandonment, chronic feelings of emptiness, or difficulties in maintaining stable relationships [12].

Securely attached individuals trust the world and their loved ones, engaging in intimate and effective relationships with others and friends [13]. In contrast, insecurely attached individuals refrain from intimate relationships with others due to a fear of rejection, keeping a distance from others [14].

Individuals with BPD often interpret ambiguous social cues as signs of rejection, leading to intense emotional reactions and maladaptive behaviors such as self-harm or impulsive aggression [15]. This hypersensitivity to rejection stems from early experiences of invalidation or abandonment, which reinforce a fear of interpersonal rejection [16]. Recent empirical studies have demonstrated a strong association between rejection sensitivity and BPD symptoms. For instance, a longitudinal study by Di Pierro et al. (2022) found that rejection sensitivity predicted increased emotional instability and interpersonal conflict in individuals with BPD [16]. Furthermore, rejection sensitivity has been shown to mediate the relationship between childhood trauma and BPD symptoms [17]. These findings highlight the need for interventions that target rejection sensitivity in BPD treatment. On the other hand, individuals with BPD, due to their fear of abandonment, do not wish to be alone. Splitting experienced in a potential situation can create significant interpersonal difficulties and individuals with BPD may self-harm, which can jeopardize their mental disorder and social security [18].

Mental security, or the sense of emotional and psychological safety, is another critical factor in understanding BPD. Individuals with BPD often experience chronic feelings of insecurity, which exacerbate their emotional instability and interpersonal difficulties [19]. Psychological security is considered one of the basic human needs and motivations, such that its reduction eliminates peace of mind and replaces it with agitation, anxiety, and restlessness [20]. Reviewing the texts shows that psychological security affects how individuals cope with stress significantly and has a noticeable impact on their activities and relationships [21]. Given the increasing psychological pressures imposed by work and life stressors on individuals, it raises the question of whether individuals with BPD can cope with psychological pressures and maintain psychological security in such conditions.

The interplay between attachment experiences, rejection sensitivity, and mental security provides a comprehensive framework for understanding BPD [22, 23]. Early attachment disruptions contribute to heightened rejection sensitivity and diminished mental security, which in turn exacerbate BPD symptoms. This dynamic underscore the need for integrated therapeutic approaches that address these interrelated factors.

Examining the relationship between BPD and attachment experiences, rejection, and psychological security is crucial for several reasons. First, it enhances our understanding of how insecure attachment and rejection experiences contribute to the development of BPD's characteristic emotional and behavioral patterns [24]. Moreover, analyzing the complex interactions among these environmental factors is essential for establishing a comprehensive model of BPD's etiology and persistence [25, 26]. This investigation holds significant clinical, research, and social value as it both facilitates individual diagnosis and treatment, and informs mental health strategies

at the community level. The clinical implications include improving therapeutic interventions, while the broader impact extends to developing preventive approaches and mental health policies. This dual focus addresses both individual patient care and population-level mental health promotion.

Given the increasing prevalence of BPD in contemporary societies and considering the dimensions of this disorder, a more appropriate and precise clinical approach can lead to valuable insights for employing interventions to prevent and mitigate social harms. The findings of this research can imply practical implications for family education. Therefore, the present study was conducted with the following specific objectives: (a) to assess the four variables of attachment, rejection sensitivity, sense of security, and BPD; (b) to examine correlations among attachment, rejection sensitivity, sense of security, and BPD; (c) to investigate the relationship between demographic characteristics and BPD; and (d) to explore how demographic variables, psychological and social security, perceived rejection, and attachment might predict BPD.

## Methods

### Study design and participants

The current study is cross-sectional and aimed to investigate the relationship between attachment, rejection sensitivity, and mental security with BPD. The research environment included two treatment centers in Qom city (Farghani Hospital and Farahan Counseling Center) affiliated with Qom University of Medical Sciences. Farghani Hospital, with 250 beds, and Farahan Counseling Center, staffed by 7 psychologists providing daily consultations in morning and afternoon shifts, admit patients. These centers are among the busy facilities in central Iran.

### Sample size and sampling

Patients attending Farghani Hospital in Qom and those visiting Farahan Counseling Center, diagnosed with BPD by a specialist physician, formed the population of this study. Inclusion criteria encompassed individuals aged 18 to 70 years with adequate verbal communication skills and confirmation of BPD diagnosis by their treating physician. Patients with hearing impairments or those unable to complete questionnaires were excluded from the study. Data collection took place from January to April 2019. The study sample comprised 89 patients diagnosed with BPD, selected through convenience sampling. Questionnaires were completed by patients over a four-month period, with an average completion time of 45 min per questionnaire. Data were gathered using demographic questionnaires, the RSPS, the RAAS, the Maslow's Psychological Security scale, and BPI.

### Measurement

#### *Demographic information*

Demographic information of the participants included age, gender, marital status, occupation, education level, economic status.

#### *The rejection sensitivity perception scale (RSPS)*

RSPS consists of 4 items designed to measure the perception of rejection. These items are derived from the definition by Downey and Feldman. Crossley et al. [27] described this scale as a global assessment tool that effectively measures employees' mental experiences. Individuals are asked to indicate how they experience these feelings using a 7-point Likert scale ranging from "Never" [1] to "Always" [7]. Examples include statements such as "I feel abandoned," "I feel socially deprived," "I feel disliked," and "I feel rejected." In Iran, the reliability coefficient of this questionnaire was calculated as $\alpha = 0.83$ using Cronbach's alpha method in the study by Rajabi et al. It has been reported to possess high reliability and is considered a suitable instrument for assessing rejection sensitivity [28]. In this study, the reliability obtained using Cronbach's alpha was $\alpha = 0.93$.

#### *Revised adult attachment scale (RAAS)*

The RAAS by Collins and Read assesses self-evaluation of skills in forming relationships and shaping close attachments. This scale comprises 18 items, each rated on a 6-point Likert scale ranging from 1 (Not at all) to 5 (Completely), with scores of 0 to 4 assigned respectively to options 1 through 5. The items are categorized into three subscales: Secure Attachment is measured by questions 6, 1, 8, 13, 12, and 17. Avoidant Attachment is evaluated by questions 5, 2, 16, 14, 7, and 18. Finally, Ambivalent/Anxious Attachment is assessed by questions 3, 9, 4, 10, 11, and 15. Collins and Read demonstrated that the subscales of Closeness (C), Dependence (D), and Anxiety (A) remained stable over a period of 2 to 8 months. They reported Cronbach's alpha reliability coefficients of 0.85, 0.78, and 0.81 for subscales A, C, and D, respectively, in a sample of students [29]. Moreover, Vejdani et al. (2020) found this scale to be reliable with a Cronbach's alpha of 0.91 in a one-month test-retest study conducted in Iran [30]. In this study, the reliability obtained using Cronbach's alpha was $\alpha = 0.95$.

#### *The Maslow's psychological security scale*

The aim of the maslow's psychological security scale (complete form) is to assess various dimensions of psychiatric security through 62 items and 15 components including environmental discomfort, paranoia, self-belief, zest for life, depression, feelings of contentment, social security, self-awareness questions, self-confidence, feelings of anger, despair and hopelessness, interest in

life, compatibility with others, feelings of health, and feelings of inferiority. The items in this scale are scored on a Likert scale ranging from 1 for "yes" to 0 for "no" for each component. This questionnaire has been widely used in various countries, hence translated into multiple languages and employed in numerous nations, standardized accordingly. Cronbach's alpha reliability coefficient for this scale has been reported as 0.85, 0.84, and 0.86 in three different studies [31]. In this study, reliability was calculated to be 0.75 using the Cronbach's alpha method.

#### *Borderline personality inventory (BPI)*

The BPI is designed to assess borderline personality traits in clinical and non-clinical samples. It is used as an initial screening tool for individuals diagnosed with BPD. The questionnaire consists of 53 yes-no questions. If an individual scores above the cutoff of 10 out of 20 items, they are likely to be influenced by BPD. The final two questions of the questionnaire are not included in the individual's final score, which is why they were omitted in the Iranian version. The reliability and validity of the Persian version of BPI have been reported to be adequate by Mohammadzadeh and Rezaei (2011) with a Cronbach's alpha coefficient of 0.70 [32]. In the study by Khosravi and Hassan, Cronbach's alpha coefficient for the total BPI scale in Iranian BPD patients was 0.70 [33].

**Table 1** Demographic characteristics of the participants with BPD ($n=89$)

| Variable | Frequency (%) | Mean (SD) | Borderline personality disorder | |
|---|---|---|---|---|
| | | | Statistical test | *P* value |
| **Gender** | | | | |
| Male | 34 (38.2) | 25.94 (4.81) | t = 0.49 | 0.62 |
| Female | 55 (61.8) | 25.38 (5.45) | | |
| **Age (years)** | | | | |
| 18–30 | 25 (28.1) | 25.96 (4.98) | | |
| 31–40 | 29 (32.6) | 25.55 (5.97) | F = 0.07 | 0.97 |
| 41–50 | 20 (22.5) | 25.25 (4.64) | | |
| > 50 | 15 (16.9) | 25.53 (5.08) | | |
| **Educational level** | | | | |
| Under diploma | 13 (14.6) | 25.15 (4.86) | | |
| Diploma | 29 (32.6) | 25.37 (4.93) | | |
| Associate degree | 22 (24.7) | 26.77 (5.64) | F = 0.58 | 0.67 |
| Bachelor | 15 (16.9) | 24.26 (5.41) | | |
| Masters/ P.H D | 10 (11.2) | 26.20 (5.43) | | |
| **Marital status** | | | | |
| Married | 69 (77.5) | 25.91 (4.93) | t = 1.07 | 0.28 |
| Single/ Divorced | 20 (22.5) | 24.50 (6.02) | | |
| **Economic status** | | | | |
| Poor | 13 (14.6) | 25.69 (5.86) | | |
| Medium | 58 (65.2) | 25.10 (5.17) | F = 1.02 | 0.36 |
| Good/ Excellent | 20 (20.2) | 27.11 (4.72) | | |
| **Occupation** | | | | |
| Employee | 19 (21.3) | 24.78 (5.24) | | |
| Unemployed | 45 (50.6) | 25.66 (5.07) | F = 0.33 | 0.71 |
| Housewife | 25 (28.1) | 26.08 (5.51) | | |

Data were presented numerically (%). t = Independent t test; F = Analysis of variance test

### Data collection and analysis

After obtaining the necessary permissions, the researcher proceeded to sample from two research environments. Subsequently, questionnaires were distributed among eligible participants who completed them in the presence of the researcher. The researcher provided instructions on how to complete the questionnaires to the patients. According to the completion guidelines, patients were asked to respond to the questions based on their experiences over the past four weeks.

The data collected were entered into the SPSS software after coding, and after ensuring data entry accuracy, they were analyzed using descriptive and analytical statistical methods. Data analysis was conducted using SPSS version 22. Measures of central tendency and dispersion were employed to describe the data. Normality of variable distributions was assessed using the Kolmogorov-Smirnov test and examining standard score values. Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to characterize participant demographics. Pearson correlation coefficients were utilized to assess relationships between quantitative variables. Independent samples t-tests and analysis of variance (ANOVA) were employed to determine the association between BPD scores and qualitative variables. Multiple linear regression with backward elimination was used to identify determinants of BPD scores. In all statistical tests, a significance level of $p<0.05$ was considered statistically significant.

## Results

### Sociodemographic

The majority of the participants were female ($n=55$; 61.8%), 30–40 years old ($n=29$; 32.6%), married ($n=69$; 77.5%), diploma ($n=29$; 32.6%), and unemployed ($n=45$; 50.6%) (Table 1).

### Outcome

The mean score of psychological and social security was 29.14 ± 4.87, which was lower than the midpoint of the questionnaire (score = 31). The mean scores for the subscales of psychological and social security were as follows: self-belief (3.34 ± 0.85), feeling inferior (3.07 ± 0.81), depression (2.57 ± 0.90), feeling happy (2.52 ± 0.73), anger (2.33 ± 0.63), and disappointment (2.26 ± 0.67). The mean scores for perceived rejection and attachment were 7.71 ± 3.52 and 35.76 ± 6.64, respectively. The mean score

for BPD was 25.59 ± 5.19, which was higher than the midpoint of the questionnaire (score = 25.5) (Table 2).

We found a positive significant correlation between perceived rejection ($p = 0.001$), attachment ($p = 0.017$) and psychological and social security ($p < 0.001$) with BPD. A positive significant correlation was between perceived rejection and attachment ($p < 0.001$). Also, we no found a significant correlation between perceived rejection ($p = 0.58$) and attachment ($p = 0.09$) with Psychological and Social Security (Table 3). The bivariate analysis showed that the mean score of BPD was not significantly different according to the demographic of the participants ($P > 0.05$) (Table 1).

### Results of regression

We used multiple regression models with the backward method to explore how demographic variables, psychological and social security, perceived rejection, and attachment could predict BPD. The results are presented in Table 4. Psychological and social security, perceived rejection, and gender predict 40% of the variance in BPD ($R^2$ = 40%), with psychological and social security being the best predictor based on β ($p < 0.001$).

## Discussion

The present study aimed to investigate the relationship between attachment, rejection, and sense of security with BPD. The findings revealed significant relationships between these factors and BPD. A significant relationship between attachment and BPD was observed in this study. Consistent with the findings of the current research, Smith and South (2020) demonstrated that disorganized attachment style is a predictor of BPD [34]. Similarly, the results align with Kaurin et al. (2020), who compared attachment styles among individuals with borderline, avoidant, and narcissistic personality disorders to those of non-clinical individuals in hospitals. They concluded that significant differences exist in these variables between clinical and non-clinical groups [35]. Aronson et

**Table 2** Distribution of the perceived rejection, attachment, psychological and social security and BPD in participant ($n = 89$)

| Variable | Mean | SD | Min | Max |
|---|---|---|---|---|
| **1. perceived rejection** | 7.71 | 3.52 | 4 | 19 |
| **2. Attachment** | 35.76 | 6.64 | 18 | 51 |
| Closeness | 11.64 | 2.82 | 4 | 20 |
| Dependency | 12.07 | 2.84 | 6 | 20 |
| Anxiety | 12.04 | 5.47 | 4 | 24 |
| **3. Psychological and Social Security** | 29.14 | 4.87 | 16 | 38 |
| Social incompatibility | 1.56 | 0.63 | 1 | 3 |
| Paranoia | 1.60 | 0.65 | 1 | 3 |
| Self-belief | 3.34 | 0.85 | 1 | 5 |
| Life expectancy | 1.39 | 0.49 | 1 | 2 |
| Depression | 2.57 | 0.90 | 1 | 4 |
| Feeling happy | 2.52 | 0.73 | 1 | 4 |
| Social security | 1.33 | 0.47 | 1 | 2 |
| Self-awareness | 1.39 | 0.53 | 1 | 3 |
| Self-confidence | 1.35 | 0.48 | 1 | 2 |
| Anger | 2.33 | 0.63 | 1 | 3 |
| Disappointment | 2.26 | 0.67 | 1 | 3 |
| Life expectancy | 1.29 | 0.48 | 1 | 3 |
| Compatibility with others | 1.60 | 0.53 | 1 | 3 |
| Feeling healthy | 1.46 | 0.52 | 1 | 3 |
| Feeling inferior | 3.07 | 0.81 | 1 | 4 |
| **4. Borderline personality disorder** | 25.59 | 5.19 | 17 | 37 |

**Table 3** Correlation among the perceived rejection, attachment, psychological and social security and BPD in participant ($n = 89$)

| Variable | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Perceived rejection | 1 | | | |
| 2. Attachment | 0.36* (< 0.001) | 1 | | |
| 3. Psychological and Social Security | 0.59 (0.58) | 0.17 (0.09) | 1 | |
| 4. Borderline personality disorder | 0.35* (0.001) | 0.25* (0.017) | 0.55* (< 0.001) | 1 |

Data were presented as Pearson's correlation coefficient, *$p < 0.05$

**Table 4** Predictors of BPD by multiple liner regression analysis

| Predictors of borderline personality disorder | Unstandardized coefficients | | | Standardized coefficients | t | *p* value | *R* |
|---|---|---|---|---|---|---|---|
| | B | Std. error | 95% CI for B | Beta | | | |
| (Constant) | 4.64 | 4.85 | -5.02 _ 14.31 | - | 0.95 | 0.342 | 40% |
| Psychological and social security | 0.52 | 0.09 | 0.34 _ 0.70 | 0.49 | 5.71 | < 0.001 | |
| Perceived rejection | 0.56 | 0.13 | 0.30 _ 0.83 | 0.41 | 4.24 | < 0.001 | |
| Gender | -2.13 | 0.99 | -4.11 _ -0.15 | -0.20 | -2.14 | 0.035 | |
| Economic status | 1.17 | 0.77 | -0.36 _ 2.71 | 0.13 | 1.52 | 0.132 | |
| Occupation | 0.94 | 0.75 | -0.55 _ 2.44 | 0.12 | 1.25 | 0.213 | |
| Educational level | 0.34 | 0.42 | -0.49 _ 1.17 | 0.08 | 0.80 | 0.421 | |
| Marital status | -0.77 | 1.16 | -3.09 _ 1.54 | -0.06 | -0.66 | 0.509 | |
| Age | -0.24 | 0.42 | -1.08 _ 0.59 | -0.05 | -0.58 | 0.563 | |
| Attachment | 0.01 | 0.07 | -0.14 _ 0.17 | 0.01 | 0.18 | 0.851 | |

Data were presented as multiple regression analysis. Only significant results were shown; CI, Confidence intervals for B

al. conducted a clinical study and found a significant relationship between insecure-ambivalent attachment style and BPD [36]. In study, Levy et al. found that individuals with BPD were more likely to be evaluated as having a disorganized attachment style by those around them (e.g., parents, teachers, and peers) [37]. Similarly, Meyer et al. found a significant relationship between insecure-ambivalent and disorganized attachment styles and BPD traits in non-clinical samples. These attachment styles were more prevalent in individuals with BPD than in other groups [38]. Moreover, Beeney et al. (2017) demonstrated a positive relationship between insecure-ambivalent and disorganized attachment styles and BPD in non-clinical samples [39].

A relationship between rejection and BPD was also observed in this study. Previous research has shown that experiences of rejection contribute to unstable behaviors in individuals with BPD and may exacerbate negative emotions [40]. According to Foxhall et al. (2019), individuals with BPD are more likely to interpret social situations as instances of social rejection [41]. Based on attachment theory, experiences of rejection are more likely to occur in individuals with insecure attachment styles [42]. Further research is recommended to explore the causal relationship between rejection and BPD traits.

Additionally, a relationship between the sense of security and BPD was found in this study. The findings are consistent with Norlander et al. (2015), who investigated whether adults with BPD recognized an improvement in their sense of security following one or two years of dialectical behavior therapy. Their results indicated that after treatment, patients experienced greater security, improved mental health, and broader well-being. These improvements in perceived security persisted one to two years post-treatment. The study concluded that the perceived sense of security might offer a new dimension to current methods of evaluating therapeutic outcomes in BPD patients and could be utilized for further treatment improvements [8].

In the present study, gender was found to have a relationship with BPD. The findings align with those of Amerio et al. (2023), who concluded that gender plays a strategic moderating role in the relationship between parental attachment and BPD [43]. Similarly, the results are consistent with Bozzatello et al. (2024), who found that BPD is more prevalent among women than men [44]. Furthermore, the study by Mahmoud Alilou et al. (2014) indicated that women, compared to men, exhibit more extreme and impulsive behaviors when experiencing rejection and suffer from higher levels of dependency [45]. Another study examining gender differences in BPD, conducted by Choubsaz and Abedin (2017), found no significant differences in the prevalence of BPD between Iranian men and women. However, specific traits differed; women exhibited significantly higher levels of impulsivity, withdrawing from relationships quickly and engaging in impulsive behaviors such as substance use. For men, the only significant trait was an intense fear of being alone and self-care concerns. Although both genders displayed different symptoms, most were more pronounced in women, a finding attributed to cultural factors. Contrary to some studies, this research highlighted greater impulsivity in women. Additionally, unmarried individuals scored higher on BPD measures compared to their married counterparts [46]. These findings also align with the current study. Lastly, Johnson and Zuccarini (2010) found that women with BPD are more likely than men to engage in substance use due to feelings of emptiness, indicating a gender difference in this aspect of the disorder [47].

### Limitations

This study has several limitations. In the current study, it is not possible to determine what may serve as a protective factor, not only through psychotherapy but also through counseling interventions. Therefore, caution is necessary when interpreting the results. Given the small sample size of the present study, caution should be exercised in generalizing the findings. Future studies should include larger and more diverse samples to enhance the generalizability of the results. Due to the use of convenience sampling in the current study, there may be a risk of selection bias. Thus, it is recommended that future studies employ random sampling techniques to verify our findings and reduce potential bias. Undoubtedly, intervening variables such as the influence of subcultures and socio-economic conditions could affect the results of the present research. Regarding the measurement tools, the large number of questionnaire items caused fatigue and reluctance among participants, which we tried to mitigate by explaining the study's objectives and encouraging participant cooperation. The use of self-report questionnaires is another limitation, potentially impacting the generalizability of the results to other populations. Future research should also examine the influence of socio-economic conditions and other intervening variables. Additionally, it is recommended that future studies investigate these factors in other groups with personality disorders. Given the broad age range (19–60 years) and heterogeneous treatment histories within our sample, coupled with the need for more comprehensive clinical variable assessment, findings should be interpreted with appropriate caution. Future studies would benefit from employing more homogeneous age cohorts while systematically documenting treatment histories and incorporating detailed clinical measurements to enhance the generalizability of results.

## Conclusion

Based on the results of the present study, attachment, rejection, and a sense of security are related to BPD. Therefore, it is essential to consider factors that can influence attachment, rejection, and security to prevent BPD. Additionally, gender is another influencing factor that should be given more attention to address potential challenges in dealing with BPD. Mental health care providers are advised to plan and implement appropriate interventions to improve these variables and related health outcomes.

**Acknowledgements**
This article is derived from a Master's thesis in Clinical Psychology. The researchers would like to thank all the study participants for their kind cooperation. Additionally, the researchers express their gratitude to the authorities of Islamic Azad University, Qom, for their financial and moral support of this research.

**Author contributions**
MA and RM designed the study and collected data. MAZ, AHH, and SW provided critical feedback on the study. MAZ analyzed the data. MA and MAZ wrote the manuscript. All authors have read and approved the final manuscript.

**Funding**
There was no funding for this study.

**Data availability**
The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Ethics approval and consent to participate**
This research was conducted under the ethical code number IR.IAU.QOM.REC.1401.058 from Qom University of Medical Sciences. Prior to sampling, written informed consent was obtained from the patients, and the study's objectives and the confidentiality of the information were explained to them.

**Consent for publication**
Not applicable.

**Competing interests**
The authors declare no competing interests.

**Conflicts of interest**
None.

Received: 13 December 2024 / Accepted: 23 April 2025
Published online: 15 May 2025

**References**

1. Widiger TA, Smith M. Personality disorders: current conceptualizations and challenges. Ann Rev Clin Psychol. 2025;21.
2. Newlin E, Weinstein B. Personality disorders. CONTINUUM: Lifelong Learn Neurol. 2015;21(3):806–17.
3. Leichsenring F, Fonagy P, Heim N, Kernberg OF, Leweke F, Luyten P, et al. Borderline personality disorder: a comprehensive review of diagnosis and clinical presentation, etiology, treatment, and current controversies. World Psychiatry. 2024;23(1):4–25.
4. Gunderson JG, Herpertz SC, Skodol AE, Torgersen S, Zanarini MC. Borderline personality disorder. Nat Reviews Disease Primers. 2018;4(1):1–20.
5. Leichsenring F, Heim N, Leweke F, Spitzer C, Steinert C, Kernberg OF. Borderline personality disorder: a review. JAMA. 2023;329(8):670–9.
6. Hein KE, Folger LF, Dennis SJ, Mullins-Sweatt SN. Personality disorders. Diagnostic Interviewing: Springer; 2025. pp. 429–54.
7. Karimi H, Koulaeian S. Predicting spouse conflict resolution strategies based on borderline personality disorder symptoms mediating by emotion regulation. J Clin Psychol. 2020;3(47):13–24. https://doi.org/10.22075/JCP.2020.19948.1840. D0i:.
8. Norlander T, Ernestad E, Moradiani Z, Nordén T. Perceived feeling of security: A candidate for assessing remission in borderline patients? Open Psychol J. 2015;8(1).
9. Erkoreka L, Zamalloa I, Rodriguez S, Muñoz P, Mendizabal I, Zamalloa MI, et al. Attachment anxiety as mediator of the relationship between childhood trauma and personality dysfunction in borderline personality disorder. Clin Psychol Psychother. 2022;29(2):501–11.
10. Ghaffari M, Rezaei A. Investigating the relation of attachment and identity styles with borderline personality disorder of adolescents. J Ilam Univ Med Sci. 2013;21(6):23–32. http://sjimu.medilam.ac.ir/article-1-539-fa.html.
11. Charnas CV. Attachment styles and borderline personality disorder: A correlational study. The Ohio State University; 2024.
12. Yuan Y, Lee H, Newhill CE, Eack SM, Fusco R, Scott LN. Differential associations between childhood maltreatment types and borderline personality disorder from the perspective of emotion dysregulation. Borderline Personality Disorder Emot Dysregulation. 2023;10(1):1–14.
13. Liu Q, Wang Z. Associations between parental emotional warmth, parental attachment, peer attachment, and adolescents' character strengths. Child Youth Serv Rev. 2021;120:105765.
14. Delgado E, Serna C, Martínez I, Cruise E. Parental attachment and peer relationships in adolescence: A systematic review. Int J Environ Res Public Health. 2022;19(3):1064.
15. Fertuck EA, Stanley B, Kleshchova O, Mann JJ, Hirsch J, Ochsner K, et al. Rejection distress suppresses medial prefrontal cortex in borderline personality disorder. Biol Psychiatry: Cogn Neurosci Neuroimaging. 2023;8(6):651–9.
16. Di Pierro R, Amelio S, Macca M, Madeddu F, Di Sarno M. What if I feel rejected? Borderline personality, pathological narcissism, and social rejection in daily life. J Personal Disord. 2022;36(5):559–82.
17. Stadnik RD. The relationship between childhood invalidation and borderline personality disorder symptoms through rejection sensitivity and experiential avoidance. Xavier University; 2021.
18. Graumann L, Duesenberg M, Metz S, Schulze L, Wolf OT, Roepke S, et al. Facial emotion recognition in borderline patients is unaffected by acute psychosocial stress. J Psychiatr Res. 2021;132:131–5.
19. Woodard NM. Differentiating borderline personality disorder from bipolar disorder: A systematic review of current literature. The Chicago School of Professional Psychology; 2023.
20. Biyimbetov J. Philosophical analysis of the problem of information psychological security. Адам Әлемі. 2021;88(2):3–9.
21. Lazorko O, Koval S, Olena H, Shkrabiuk V, Kulesha-Liubinets M, Bihun N. Psychological security of the individual as a functional component of professional activity. BRAIN Broad Res Artif Intell Neurosci. 2021;12(4):455–73.
22. Rudge S, Feigenbaum JD, Fonagy P. Mechanisms of change in dialectical behaviour therapy and cognitive behaviour therapy for borderline personality disorder: a critical review of the literature. J Mental Health. 2017.
23. Torgersen S, Kringlen E, Cramer V. The prevalence of personality disorders in a community sample. Personality and Personality Disorders: Routledge; 2013. pp. 132–8.
24. Knapen SR, Mensink W, Hoogendoorn AW, Swildens WE, Duits P, Hutsebaut J et al. Associations between childhood trauma and epistemic trust, attachment, mentalizing, and symptoms of borderline personality disorder. Psychopathology. 2025:1–22.
25. Runions KC, Wong J, Pace G, Salmin I. Borderline personality disorder and peers: A scoping review of friendship, victimization and aggression studies. Adolesc Res Rev. 2021;6(4):359–89.
26. Arnett J. Exposure to physical intimate partner violence in childhood and borderline personality disorder traits. The Mediating Role of Insecure Attachment; 2024.
27. Penhaligon NL, Louis WR, Restubog SLD. Emotional anguish at work: the mediating role of perceived rejection on workgroup mistreatment and affective outcomes. J Occup Health Psychol. 2009;14(1):34–45. https://doi.org/10.1037/a0013288.
28. Rajabi A, Kazemian S, Esmaili M. To predict the patient's perception of physician empathy on the basis of perceived rejection and the perception of aging in the elders at army retired community. Q Magazine Nurse Doctor War. 2016;10(1):5–10.

29. Collins NL, Read SJ. Adult attachment, working models, and relationship quality in dating couples. J Personal Soc Psychol. 1990;58(4):644–63. https://doi.org/10.1037/0022-3514.58.4.644.
30. Vejdani S, Karami M, Ahmadi S. The moderating role of religious beliefs in the relationship between attachment styles and attitude towards infidelity in married women. Women's Stud Sociol Psychol. 2020;18(2):193–220. https://doi.org/10.22051/JWSPS.2020.30750.2187.
31. Cohen S, Janicki-Deverts D. Who's stressed? Distributions of psychological stress in the united States in probability samples from 1983, 2006, and 2009 1. J Appl Soc Psychol. 2012;42(6):1320–34. https://doi.org/10.1111/j.1559-1816.2012.00900.x.
32. Mohammadzadeh A, Rezaei A. Validation of the borderline personality inventory in Iran. Int J Behav Sci. 2011;5(3):269–77. (Persian).
33. Khosravi M, Hassani F. From emotional intelligence to suicidality: a mediation analysis in patients with borderline personality disorder. BMC Psychiatry. 2022;22(1):231.
34. Smith M, South SJC. Romantic attachment style and borderline personality pathology: A meta-analysis. 2020;75:101781.
35. Kaurin A, Beeney JE, Stepp SD, Scott LN, Woods WC, Pilkonis PA et al. Attachment and borderline personality disorder: Differential effects on situational socio-affective processes. 2020;1:117– 27.
36. Aaronson CJ, Bender DS, Skodol AE, Gunderson JG. Comparison of attachment styles in borderline personality disorder and obsessive-compulsive personality disorder. Psychiatr Q. 2006;77:69–80.
37. Levy KN, Meehan KB, Weber M, Reynoso J, Clarkin JF. Attachment and borderline personality disorder: implications for psychotherapy. Psychopathology. 2005;38(2):64–74.
38. Meyer B, Pilkonis PA, Beevers CG. What's in a (neutral) face? Personality disorders, attachment styles, and the appraisal of ambiguous social cues. J Personal Disord. 2004;18(4):320–36.
39. Beeney JE, Wright AG, Stepp SD, Hallquist MN, Lazarus SA, Beeney JR et al. Disorganized attachment and personality functioning in adults: A latent class analysis. 2017;8(3):206.
40. Saunders KE, Jones T, Perry A, Di Florio A, Craddock N, Jones I, et al. The influence of borderline personality traits on clinical outcomes in bipolar disorder. Bipolar Disord. 2021;23(4):368–75.
41. Foxhall M, Hamilton-Giachritsis C, Button K. The link between rejection sensitivity and borderline personality disorder: A systematic review and meta-analysis. Br J Clin Psychol. 2019;58(3):289–326.
42. Howe D. Attachment theory. Social work theories and methods. 2012;75.
43. Amerio A, Natale A, Gnecco GB, Lechiara A, Verrina E, Bianchi D, et al. The role of gender in patients with borderline personality disorder: differences related to hopelessness, alexithymia, coping strategies, and sensory profile. Medicina. 2023;59(5):950.
44. Bozzatello P, Blua C, Brandellero D, Baldassarri L, Brasso C, Rocca P et al. Gender differences in borderline personality disorder: a narrative review. 2024;15:1320546.
45. Mahmoud Alilou M, Hashemi T, Bairami M, Bakhshipour A, Sharifi MJPA. Investigation the relationship between childhood maltreatment, early losses and separations and emotion dysregulation with. Borderline Personality Disorder. 2014;21(2):65–88.
46. Choobsaz A, Abedin A. Gender Difference in Borderline Personality Disorder in Iranian Culture. 2017.
47. Johnson S, Zuccarini D. Integrating sex and attachment in emotionally focused couple therapy. J Marital Family Therapy. 2010;36(4):431–45.


## Publisher's note