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Individual Factors Underlying Suicidal Behaviors in Patients with Borderline Personality Disorder: A Qualitative Study

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Abstract

Background: Borderline personality disorder (BPD) is associated with a high risk of suicide. Limited information is available on the individual factors underlying suicidal behaviors, especially suicide attempts (SAs), in Iranian patients with BPD.
Objectives: This study aimed to analyze the individual factors underlying suicidal behaviors in patients with BPD.
Methods: This was a qualitative descriptive study that was conducted from May 2020 to February 2021 in Tehran and Karaj, Iran, on 23 participants, including 14 patients with BPD and seven mental health professionals, as well as two members of their families. The research environment included psychiatric inpatient wards, psychiatric emergencies, and psychiatric clinics. Participants were selected through purposive sampling. Data were collected using semi-structured interviews and were analyzed using conventional content analysis.
Results: Data analysis revealed five main themes and 15 sub-themes related to the individual factors underlying the identification and prediction of the risk for suicidal behaviors and SAs. The extracted themes included "psychological pain and loneliness", "defects in the distinction and integration of emotions", "unconventional behavior and emotion", "pervasive incompatibility", and "breakdown of the self-integrity".
Conclusions: The BPD is a complex and challenging disorder in which patients with BPD usually tend to engage in suicidal behaviors, and with the emergence of individual factors underlying the occurrence of such behaviors, appropriate preventive measures and interventions can be taken to reduce suicide-related behaviors such as suicidal thoughts and planning, as well as SAs.

Keywords: Borderline Personality Disorder, Individual Factors, Qualitative Research, Suicidal Behavior, Self-Injurious Behavior, Suicide

1. Background

Suicide has been a growing concern during the past decade. Suicidal behavior is defined as non-lethal suicidal thoughts and behaviors involving the idea, plan, and attempt to commit suicide (1). About one-third of individuals with suicidal thoughts have a plan for complete suicide in adolescence, and about 60% of individuals with such a plan attempt suicide mostly one year after the incidence of suicidal ideation in their minds (2, 3).

Suicide rates in personality disorders are predicted to be 3 - 10%, with a prevalence of 1% in the community (3). Among individuals with personality disorders, most suicidal behaviors are related to those with borderline personality disorder (BPD) (4, 5). Suicidal behavior is central to BPD, among which between 50% and 75% of patients with BPD attempt suicide (6), with an average of three SAs per patient, and the rate of complete suicide in BPD is between 5% and 10% (7).

Research related to suicide has traditionally focused on identifying potential risk factors. The main risk factors mentioned in previous articles include despair (8), thwarted belongingness, perceived burdensomeness, cognitive anxiety sensitivity, recurrent NSSI (9-11), impulsivity (12), and emotional instability (13). Recent studies also suggested that child abuse, same as sexual abuse (CSA), could underlie self-injury behaviors (14-16). Adolescence seems to be an important period that indicates an increase in the problem of emotion dysregulation and the emergence of some major sources of behavioral problems associated with BPD (eg, NSSI and SA) (12, 17). Hennings argues that suicide can be a way of suppressing emotions and the final

effort to control psychological pain (18). Determining individual characteristics in patients may help us understand self-destructive behaviors in BPD more completely and to address them in diagnostic and therapeutic sessions more carefully (19). Most studies on the individual factors of suicidal behaviors have been performed quantitatively; however, it is not yet clear what dimensions predominate in the relationship between BPD and SAs. Given that the occurrence of suicidal behavior in patients with BPD is frequent and is often associated with complex suicidal behavior, little information is available on the causes of suicidal behaviors, especially SA in Iranian BPD patients. On the other hand, the symptoms and presentations of mental disorders vary according to cultural factors (20). Suicide is not a one-dimensional and Unitary phenomenon and it should be looked at in any culture due to its specific temporal and spatial requirements. Therefore, using a qualitative approach based on the experiences of the participants can create a deeper understanding of the phenomena.

2. Objectives

The present study was conducted to remove the existing knowledge gap with a qualitative approach and investigate individual factors underlying suicidal behaviors in patients with BPD.

3. Methods

3.1. Study Design

This qualitative study was performed using conventional content analysis. This method helps researchers discover new categories of data without any presuppositions (21).

3.2. Research Setting and Participants

The environment of this study included psychiatric inpatient wards, psychiatric emergencies, and psychiatric clinics affiliated to Shahid Beheshti University of Medical Sciences, Tehran, Iran, and Alborz University of Medical Sciences. In this study, we used data source triangulation to develop a comprehensive understanding of the suicide phenomenon in people with BPD (22). The participants were selected by the purposeful sampling technique. Inclusion criteria of this study were patients with BPD along with suicidal thoughts, SA, self-injury behaviors, the ability to communicate. The BPD was diagnosed using the Structured Clinical Interview for DSM-IV Axis II (SCID-II-PQ) (23) by psychiatrists and psychologists. The inclusion criteria for mental health professionals included nurses of psychiatric wards, psychiatrists, psychologists with more than one year of experience working with these patients. Inclusion criteria for family members also included the ability to answer questions and live with the patient. To achieve a variety of data, samples with maximum variation in age, gender and education level, as well as the diversity of mental health professionals in terms of age, gender, work experience, job, and education degree were selected. Exclusion criteria were the lack of insight, the presence of psychotic symptoms, and dissatisfaction. In total, 25 face-to-face interviews were conducted until data saturation was reached. Participants six and 10 were interviewed twice. In nine cases, follow-up interviews were conducted with mental health professionals and patients' families for further clarification (Table 1).

3.3. Data Collection

Data collection was conducted from May 2020 to February 2021 through in-depth, semi-structured face-to-face interviews. Interviews were conducted by the first author, a psychiatric nurse with 10 years of experience working with patients with personality disorders under the supervision of the corresponding author. Interviews with patients were conducted individually, in the ward interview room, at a time and place appropriate to the participants' willingness and tolerance in the morning and evening shifts. Also, interviews with the families of patients in the evening shift in the interview room in the ward and with mental health professionals were often conducted at noon in the hospital education unit in a quiet environment and away from environmental stimuli. All interviews were recorded with the consent of the participants by a digital recorder, and the duration of the interviews was between 30 and 120 minutes, with an average of 45 minutes. The author first asked a few general questions based on the Guide to Interview Questions (Table 2). The interview was continued by constructing the following questions based on the participants' answers until the data saturation was reached. Then, the transcripts of the recorded interviews were typed in Word 2010, and the data were collected and analyzed simultaneously.

3.4. Analysis of Data

Data were analyzed through Lundman and Graneheim's conventional qualitative content analysis (21) using MAXQDA 10 Software. First, the text of each interview was read several times to understand its general content. Then, it was divided into meaningful units, key concepts were extracted, and initial codes were formed. The codes were compared with each other, and the subcategories and categories were classified in terms of similarity and difference, and afterward, the themes were identified. Coding

Table 1. Demographic Characteristics of Participants

Participant Number	Age (y)	Gender	Type of Participant	Education Degree
1	16	F	Patient	Elementary school
2	17	F	Patient	High school
3	17	M	Patient	High school
4	29	M	Patient	High school
5	32	F	Patient	Diploma
6	22	M	Patient	Elementary school
7	34	M	Patient	Diploma
8	20	M	Patient	Elementary school
9	24	F	Patient	Diploma
10	19	F	Patient	Dropout university student
11	20	F	Patient	Dropout university student
12	20	F	Patient	University
13	28	F	Patient	University
14	17	M	Patient	Elementary school
15	36	F	Psychiatric Nurse	Master's degree
16	42	F	Psychiatric Nurse	Ph.D. assistant professor
17	54	F	Psychiatrist	M.D. associate professor
18	41	M	Psychiatrist	M.D. assistant professor
19	52	F	Psychiatrist	M.D. assistant professor
20	42	M	Psychologist	Master's degree
21	43	F	Psychologist	Master's degree
22	53	M	Family (mother)	Elementary school
23	48	F	Family (father)	University

was done by the first author, and then interviews and codes were reviewed by other authors. The difference of opinion between the authors on data analysis was discussed until a consensus was reached.

3.5. Data Trustworthiness

In this study, four criteria (credibility, confirmability, transferability, and dependability) were used to check the data accuracy (24). The researcher tried to help increase the credibility of the data by long-term engagement (about 12 months) with the desired phenomenon and immersion in the data obtained from the study. Also, for confirmability, the researcher presented the extracted codes and categories to several participants (a psychiatrist, a psychiatric nurse, and a patient) and sought their opinions, which they confirmed the consistency of the findings with their own experiences or they had comments that were considered; all stages of the analysis process were also shared and reviewed with a psychiatric nurse and a researcher who were experts in the field of qualitative studies. The result of these forums was the assurance and confirmation of the study direction. To ensure the transferability of the data, purposive sampling with maximum diversity in age, gender, and education level was performed in Tehran and Karaj. Finally, for dependability, all phases of the study were recorded and reported precisely in order to let the other researchers to review the study.

4. Results

Findings included five main themes: "psychological pain and loneliness", "defects in the distinction and integration of emotions", "unconventional behavior and emotion", "pervasive incompatibility", and "breakdown of the self-integrity" obtained from 15 sub-themes (Table 3).

4.1. Psychological Pain and Loneliness

Psychological pain and loneliness was the first theme extracted from data coding and data analysis in the present study. This theme was derived from three subthemes of worthless ego, mental fatigue, and feelings of loneliness and hopelessness.

4.1.1. Worthless Ego

One of the remarkable cases in patients with BPD is the feelings of absurdity and worthlessness, and since these patients feel that they are worthless creatures, they tend to hurt themselves. Patients reported that they had feelings of humiliation, self-hatred, and self-blame.

"When the song is played, and I listen to it, I ask myself why my girlfriend left, what was wrong with me, what did I lack? Now, I have a new girlfriend, better than the previous one, but I keep telling myself why she left me. I think I lacked something that she left me, and I start self-injuring myself with a razor (P. 3)".

4.1.2. Mental Fatigue

Mental fatigue means that patients are full of boring emotions and cannot think and behave properly and live in peace.

Table 2. Guide to Interview Questions

Participants	Interview Questions
Patients	
	What happened that suicidal thoughts came to your mind?
	What factors exacerbate suicidal thoughts?
	When do you do behaviors that injury yourself?
Mental health professionals	
	What are the causes of suicide in people with BPD?
	What personality traits in these people exacerbate suicidal behaviors?
Patients' families	
	What factors caused your patient to commit suicide?
	What personality traits in your patient are associated with suicide?

Table 3. Themes and Sub-themes of Individual Factors Underlying Suicidal Behaviors in Patients with BPD

Themes	Sub-themes
Psychological pain and loneliness	
	Worthless ego
	Mental fatigue
	Feelings of loneliness and hopelessness
Defects in the distinction and integration of emotions	
	Excessive emotion seeking
	Defects in emotional self-regulation
Unconventional behavior and emotion	
	A history of substance use
	Having thoughtless and reckless behavior
Pervasive incompatibility	
	Behavioral norm-breaking
	Low tolerance threshold
Breakdown of the self-integrity	
	Vulnerable personality
	Childhood trauma
	Poor problem-solving ability
	Ego weakness
	Unstable shaky identity
	Emotionally insecure attachment

"It is not something that happens to me suddenly; this frustration's always with me. I like to achieve what I want; either achieve or die; I really cannot continue anymore; I swear to God I cannot continue anymore. From childhood, I said to myself that when I become 18, everything will be fine; when I become 20, everything will be fine; I can no longer, I have no power, I feel really tired, tired, tired, I am confused, I am restless, I am very miserable (P. 10)".

4.1.3. Feelings of Loneliness and Hopelessness

Lack of hope for the future and vague images of the future were the concepts that patients referred to.

"The times when I am very sad, disappointed with the world and everything, I think I have no one, no one helps me; sometimes, I think there is no God either; 'because I called him so many times and he did not hear my voice, suicidal thoughts come to me (P. 11)."

4.2. Defects in the Distinction and Integration of Emotions

Another extracted theme of the study was "defects in the distinction and integration of emotions", which included "excessive emotion seeking" and "defects in emotional self-regulation."

4.2.1. Excessive Emotion Seeking

Excessive emotion seeking means that patients are looking for a lot of new, complex, and different emotions and have a tendency to self-injury after emotions. They expressed these emotions as enjoying psychedelic parties, not feeling pain after self-injury, enjoying seeing blood, and mental discharge following self-injury.

"When we go to psychedelic parties, we take the drugs; there, we are given pills like X; we eat and shake our heads like this until the morning with the rhythm of the songs. From 12 p.m. to 9 a.m., your head has to be shaken; then, your mind goes blank. In the morning, your eyes swell and come down up to here, as if you had taken cocaine; then, you had to go to sleep and get up at night. Once my friend was in phase, he cut his neck vein and died at the moment;

by the time the ambulance arrived, he was over. We also do a lot of self-injury. After all, everyone dies one day, but it has so much fun, it is very exciting (P. 8)".

4.2.2. Defects in Emotional Self-regulation

Several participating patients reported multiple emotional and mood problems, such as emotional sensitivity and emotional reactivity, which are sometimes without any specific reasons. This sub-theme consists of concepts such as a sense of family hatred, mood swings, sadness, inability to express emotions, and emotional dysregulation.

"One day, I am fine and another day awful. My psychiatrist told me that "your behaviors are like bipolar people; that is, one day you are happy, and another day you are sad". I am really like that. I was terribly aggressive as a teenager. I had no suicidal thoughts, but I had self-injury on my hands and stomach. Even now, most of the time, I do not know when I feel good and when I feel bad (P. 7)".

4.3. Unconventional Behavior and Emotion

Another theme was "unconventional behavior and emotion", which included sub-themes of "a history of substance use" and "having thoughtless and reckless behavior".

4.3.1. A History of Substance Use

Several patients stated that they had experienced using various drugs since early adolescence and that the reasons for substance abuse were to achieve calmness and to experience its resulting excitement. This sub-theme included various addictive substance use, psychiatric drug abuse, and alcohol abuse.

"I was a psychedelic user; one year, the elastic cocaine drugs, after that, ketamine, marijuana, cigarettes; one year, I was consuming all of these drugs all day and night; for a year; also, I used mushroom, LDS and each one had an appeal to me (P. 1)".

4.3.2. Having Thoughtless and Reckless Behavior

One of the significant points in patients was their recklessness and lack of foresight in their behavior. Patients reported that when they were rejected and neglected by others or did not get their wishes, they began to engage in risky and reckless behaviors.

"When I argued with my father, I ran the house and took several tramadol pills and got on a motorcycle and went to the highway... Once I picked up my father's car and got into it without a license, which hit a tree on the way (P. 14)."

4.4. Pervasive Incompatibility

This theme includes the following subthemes of behavioral norm-breaking" and "low tolerance thresholds".

4.4.1. Behavioral Norm-Breaking

Patients stated that they tended to break norms and were not very interested in existing frameworks and norms. Inability to do this leads to the incidence of self-injuring behaviors in them.

"For example, I like walking very much. At night, I go for a walk at 11 and 10 o'clock. The family has a problem with this and says that the girl does not go out at this time of night; it is dangerous, but well, I like it. We argue on this subject, and I go most nights. I injured myself on this issue several times (P. 9)".

4.4.2. Low Tolerance Threshold

Patients stated that when they were stressed, they could not cope with it, could not tolerate any failure, were very irritable, and could not appropriately respond to the unpleasant behaviors of others; therefore, they harmed themselves.

"Suicidal thoughts come from the despair and depression and life stress and I cave in; since then, the suicidal thoughts come to my mind; that I do not like to be alive anymore. These problems are not bearable for me, at all; I would like to die. When I am bothered by something, if I can, I deal with it without thinking about suicide, but if I want to escape it, like ego, I like to commit suicide (P. 4)".

4.5. Breakdown of the Self-integrity

Another theme in the participants' speeches was "breakdown of the self-integrity", indicating a lack of coherence in self-concept emerging from the sub-themes of "vulnerable personality", "childhood trauma", "poor problem-solving ability", "ego weakness", "unstable shaky identity", and "emotionally insecure attachment".

4.5.1. Vulnerable Personality

The personality of individuals with BPD has not been formed well, due to previous negative experiences, and these individuals are vulnerable to daily stress, and imitating the self-injuring behaviors of others causes it to be repeated in similar cases.

"… My dad threw all my dolls down from behind the house door, broke my bed, broke all my belongings, and ruined everything that I loved. I had tied one side of the scarf to my head and the other side to the door; with my childish thoughts, I thought I would suffocate and die in this way. Now, with the slightest stress, I lose my control and want to self-injury (P. 11)."

"At school, I saw my friends' hands, which were doodle. I asked them what they were, they answered razor scars. I also learned from them. Whenever I got angry, I injured myself with a razor and got relaxed; after that, I have no regrets at all (P. 12)".

4.5.2. Childhood Trauma

Childhood trauma was one of the factors mentioned by most of the participating patients. Some of them stated that they had been sexually assaulted in their childhood.

"When I was ten, my brother, who was about 15 years older than me, raped me. At first, I did not know what had happened, I was just crying. When I entered high school, I just realized what the issue was. After that, I hated him and also hated my family, who did not say anything to my brother when they understood the issue (P. 5)".

4.5.3. Poor Problem-Solving Ability

Mental health professionals stated that one of the most important behavioral characteristics in these patients was low problem-solving power.

"Another thing that I think is important is their problem-solving. When they face some problems in their lives and when some problems occur to them, they feel that they are in dire straits; they feel that they have reached a deadlock; they feel that there is no way to solve their problems in life; there is nothing else they can do; it means, they have reached a dead-end. When they feel that they have reached a dead-end or cannot do anything in their life, they can surely lose hope for life for their own psychological life... (P. 17)".

4.5.4. Ego Weakness

Most of the participants mentioned lack of control over internal conflicts as one of the personal characteristics of these individuals, which is sometimes accompanied by self-blame and attempting to self-punishment. In this regard, one of the mental health professionals expressed his experiences as follows:

"I see that these individuals judge themselves a lot in dealing with life realities. On the one hand, they cannot deal with fleeting emotions; on the other hand, they show a sense of self-punishment and self-blame against those behaviors that may cause inner anger toward themselves and attempt to self-injury (P. 16)".

Also, several mental health professionals stated that ego had not developed in these patients.

"Usually, the ego in these individuals is very weak; it means when you look at them, you see that 'their ego' is very fragile. When you say a sentence to them, for example, "what a beautiful woman you are", or "what a smart man you are", they suddenly become extremely thrilled. As soon as you tell them, "I think there is something wrong here", you suddenly see that they get downed, deep, depressed, or they attack you (P. 19)".

4.5.5. Unstable Shaky Identity

The identity in these individuals has not been formed well, and they have an unstable self-image. This sense of lack of identity has led to low self-esteem, hidden anger, and inner tension in these individuals.

"When I ask them who you are and describe yourself to me, they usually do not have much to say, either individually or regarding their family. A patient used to tell me: 'when I am with my friends, I feel that I am not myself and I am very different from the one alone...' It shows that these individuals have difficulty in obtaining an identity (P. 20)".

Participants also stated that they did not have good self-confidence in dealing with some issues.

"My mother insults me badly, so your pride is hurt, your self-confidence drops. I am regularly trying to boost my self-confidence, but I still have low self-confidence. Many times I cannot assert myself because of my low self-confidence (P. 2)".

4.5.6. Emotionally Insecure Attachment

Emotionally insecure attachment means creating an emotional relationship with those whom the individual does not know well enough, and this attachment style has led to the incidence of sexual and emotional abuse of them during childhood and adolescence and a sense of distrust. In this regard, one of the participants as a psychiatric nurse stated:

"You see many emotional relationships in these people, each of which ends in a trauma in the individual's life, but again in the next relationship, the same pattern is formed that, in the first stage, causes distrust in others, but in the next stage, leads to self-anger due to lack of control in establishing emotional communication with strangers (P. 16)".

In this regard, one of the patients stated:

"After the boy, who was my aunt's friend, raped me and took away all my dreams, my entire girly world, from me, my world is nothing but black and gray; nothing is colored to me, I do not believe anything, I do not believe anyone's words anymore. I cannot trust anyone, I am afraid of everyone (P. 10)".

5. Discussion

The results of this study showed that several individual factors underlie suicidal behaviors in patients with BPD. Data analysis showed five themes and fifteen sub-themes.

The five themes were categorized as follows: "psychological pain and loneliness", "defects in the distinction and integration of emotions", "unconventional behavior and emotion", "pervasive incompatibility", and "breakdown of the self-integrity". The theme of psychological pain and loneliness in patients with BPD includes the sub-themes of worthless ego, mental fatigue, and feelings of loneliness and hopelessness. Many participants expressed that they felt absurd and worthless, they felt deeply alone, and were not understood by others.

To get rid of these feelings, patients with BPD commit self-injury and have suicidal thoughts. In Shneidman's psychological model of suicide, psychological pain has also been considered a major psychological variable for suicidal behaviors (25). In this regard, a study proposed that many patients with BPD, as part of their main identity, felt that they were inherently "bad", "worthless", or "unlovable" and that these attitudes motivated many self-injuring behaviors in BPD (4). A systematic review in 2020 revealed that the experience of chronic absurdity might be related to the unique depressive experiences of the patient with BPD and be associated with masochism, suicide, and poor social and occupational functioning (26). Another important theme of the study was "defects in the distinction and integration of emotions" in the emergence of suicidal behaviors, which included two sub-themes of "excessive emotion seeking" and "defects in emotional self-regulation".

Emotion seeking, search for excitement, and various, new, and complex experiences, as well as the desire for bodily harm, were the experiences of this group of individuals, and participants stated that they were looking for excitement beyond usual and ordinary excitement. There are few studies on excessive emotion seeking, but in confirming the results of defects in emotional self-regulation, Fox et al. identified poor emotion regulation as a potential risk factor for the development and persistence of NSSI (27). A study by Somma in 2017 found that emotion dysregulation was a significant mediator in the relationship between NSSI and BPD characteristics among adolescents (28). Contrary to these results, Links et al.'s (study showed that the elements of emotional instability (fluctuation, maladaptation, and mood reactivity) were not associated with future suicidal thoughts and recurrent suicidal behaviors (29), indicating further research in this regard.

In the present study, most patients stated that before the NSSI attempt, they had a severe state of internal and disgusting tension, after which they experienced a sense of calm and enjoyed seeing blood and self-injury. Andover also found the same results as the present study and stated that the most important motivation for NSSI in patients with BPD was to reduce stress and negative internal tension. Other reasons for NSSI include reducing unpleasant emotions, self-punishment, regaining control, and gaining awareness of physical emotions (30).

Another theme was "unconventional behavior and excitement" with two sub-themes of "a history of substance use" and "having thoughtless and reckless behavior". Many of the patients reported a history of psychiatric drug abuse aiming to calm down or attempt suicide, and also some of them reported a history of using various drugs and alcohol use. Indeed, one of the most important individual factors in these patients was drug, alcohol, and psychiatric drug abuse, which was effective in the development of suicidal behaviors.

The results of the present study are consistent with the results reported in other studies. In a longitudinal study, it was suggested that one-third of individuals with BPD used alcohol and drug (4). The results of the national epidemiologic survey on alcohol and related conditions (NESARC) showed that 78.2% of individuals with BPD had lifelong criteria for a substance use disorder (SUD) (31). Heath et al. also confirmed that individuals with BPD had a history of substance and alcohol abuse and also the severity of psychiatric symptoms such as depression, tension, anger, fatigue, and mood disorders were higher in these individuals and also they had legal problems and it was found that at the time of use, they had a high prevalence of NSSI including cuts (81.4%), strikes (36.7%), scratches, (33.3%) and burns (22.9%); overall, 50.9% of them perform various forms of NSSI (32).

Another sub-theme in this section is "having thoughtless and reckless behavior". Participants stated that they had explosive anger and did things without thinking about their consequences, which in many cases, led to increased suicidal behaviors. Findings of an eight-year longitudinal study at the University of Pittsburgh showed that higher degrees of impulsive aggression increased the risk of suicidal behavior, and also negative emotions, emotional instability, and impulsive aggression were among prominent personality traits associated with suicidal behavior in BPD (4).

Behavioral norm-breaking (desire for absolute freedom, non-adherence to certain habits and behaviors, and lack of interest in frameworks and rules) and low tolerance threshold (low tolerance for stress, reactivity to the behaviors of others, and intolerance of failure) are two subthemes of pervasive incompatibility. Patients stated that they were unwilling to adhere to a framework and rule because they were put under stress and then would engage in impulsive behaviors. In fact, these individuals have very low patience and tolerance and cannot adapt to new situations in different conditions. The results of a study showed that maladaptive performance was an immature defense

style, more associated with personality disorder, and patients with BPD were more likely to use a maladaptive defense style and to attempt suicide (33). Kofler stated that adolescents who experienced adversities had a relatively high level of emotional turmoil, eventually manifesting in the form of maladaptive behavior (34). In line with the sub-theme of low tolerance threshold, it was found that another personality trait in patients with BPD was low tolerance, which in many cases was associated with suicidal behaviors. In addition, patients found distress unacceptable and intolerable and overreacted to stressors (35). Another study also found that in patients with BPD, individuals with low distress tolerance had the highest risk of performing chronic and serious suicidal behaviors (36).

The last theme extracted from this study was "breakdown of the self-integrity", which included the sub-themes of "vulnerable personality", "childhood trauma", "poor problem-solving ability", "ego weakness", "unstable shaky identity", and "emotionally insecure attachment". Many participants reported that they started self-injuring behaviors at an early age, were emotionally and sexually abused in childhood, were raised in chaotic and insecure families, often felt the emotional absence of their parents, and felt distrustful of people. They also said that when their emotional and intimate relationships with their friends, especially the opposite sex, were destroyed, it created suicidal thoughts in these individuals; on the other hand, they were very vulnerable due to psychological traumas in interpersonal relationships, defects in communication, lack of strong emotional relationships throughout life, and rejection and lack of quality and stability of good emotional relationships, especially with the opposite sex. The therapists stated that ego in these people was not formed well, and they have a cognitive impairment such as poor problem-solving ability. The results of some studies have shown that BPD is a serious type of psychological pathology characterized by the pervasive pattern of instability in emotion regulation, dysfunctional interpersonal relationships, impaired identity, and a chronic feeling of absurdity, and identity dysfunction can lead to interpersonal relationships and behavioral disorders and exacerbate stress, incompatibility, and dysfunction (37). Despite impulsivity and identity disorders in BPD, which are among more prominent factors in suicidal behaviors (especially gestures), child sexual abuse (CSA) seems to be associated with more serious suicidal behaviors (38).

The findings of the present study demonstrate the complex and intertwined nature of traumatic experiences in organizing personality, self, and identity, and several participants stated that they had been sexually abused during childhood, and as a result, they were constantly stressed and anxious, had a bad sense about themselves, and then committed self-injury and suicide to get rid of these thoughts. Consistent with the results of the present study, Ibrahim et al. suggested that various types of maltreatment (sexual, physical, and emotional abuse) increased the risk of BPD and suicidal behaviors (39).

In line with the sub-theme of insecure attachment, similar studies have confirmed that insecure attachment is particularly prevalent among individuals with BPD (40), and this may confirm the hypothesis that the level of insecure attachment style is a mediator between BPD and self-injury (41). Moreover, the results showed that patients with BPD have poor problem-solving. This finding is supported by the findings of Akbari Dehaghi et al. (42). Also, consistent with this finding, meta-analytic studies on neuropsychological function have reported that individuals with BPD show deficits in a wide range of executive functions (EFs), including response inhibition, working memory, cognitive flexibility, decision making, planning, and problem-solving (43). Some studies have identified factors such as depersonalization/derealization as factors influencing suicidal behaviors in BPD that were not seen in the participants of the present study (44).

One of the limitations of this study was scheduling appointments with patients because they had daily visit schedules with psychiatrists and psychologists, which could cause fatigue and affect the process of interviewing the researcher, which this limitation was removed by the researcher's long-term involvement in complying with patients' plans to attend the psychiatric ward. Another limitation was related to the nature of qualitative research that the results cannot be generalized to the general public.

5.1. Conclusions

Individual factors and personality traits of patients with BPD (psychological pain and loneliness, defects in the distinction and integration of emotions, unconventional behavior and emotion, pervasive incompatibility, and the existence of self-spilt) play an important role in the incidence of suicidal behaviors. By identifying the underlying individual factors, appropriate preventive measures and interventions can be taken to reduce suicide-related behaviors such as suicidal thoughts and planning, as well as SAs. The results can also show planners and policymakers that qualitative along with quantitative studies can be used to take effective measures to reduce SAs in patients with BPD.

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Footnotes

Authors' Contribution: MH and JM did the planning, design of the study, performed analysis, and wrote the manuscript. MH conducted the interviews. This study was supervised by JM. JM and FA were involved in controlling interviews and data analysis. All authors were in close collaboration and responsible for critical revisions of the manuscript. All authors read and approved the final manuscript.

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References

1. Yen S, Peters JR, Nishar S, Grilo CM, Sanislow CA, Shea M, et al. Association of Borderline Personality Disorder Criteria With Suicide Attempts: Findings From the Collaborative Longitudinal Study of Personality Disorders Over 10 Years of Follow-up. *JAMA Psychiatry*. 2021;**78**(2):187–94. doi: 10.1001/jamapsychiatry.2020.3598.
2. Simbar M, Golezar S, Alizadeh S, Hajifoghaha M. [Suicide risk factors in adolescents worldwide: A narrative review]. *J Rafsanjan Univ Med Sci*. 2018;**16**(12):1153–68. Persian.
3. McLoughlin AB, Gould MS, Malone KM. Global trends in teenage suicide: 2003–2014. *Int J Med*. 2015;**108**(10):765–80. doi: 10.1093/qjmed/hcv026.
4. Soloff PH, Chiappetta L. Suicidal Behavior and Psychosocial Outcome in Borderline Personality Disorder at 8-Year Follow-Up. *J Pers Disord*. 2017;**31**(6):774–89. doi: 10.1521/pedi_2017_31_280.
5. Schneider B, Wetterling T, Sargk D, Schneider F, Schnabel A, Maurer K, et al. Axis I disorders and personality disorders as risk factors for suicide. *Eur Arch Psychiatry Clin Neurosci*. 2005;**256**(1):17–27. doi: 10.1007/s00406-005-0593-7.
6. Soloff PH, Chiappetta L. 10-Year Outcome of Suicidal Behavior in Borderline Personality Disorder. *J Pers Disord*. 2019;**33**(1):82–100. doi: 10.1521/pedi_2018_32_332.
7. Jopling EN, Khalid-Khan S, Chandrakumar SF, Segal SC. A retrospective chart review: Adolescents with borderline personality disorder, borderline personality traits, and controls. *Int J Adolesc Med Health*. 2016;**30**(2). doi: 10.1515/ijamh-2016-0036. [PubMed: 27442360].
8. May AM; Klonsky. The Three-Step Theory (3ST): A New Theory of Suicide Rooted in the "Ideation-to-Action" Framework. *Int J Cogn Ther*. 2015;**8**(2):114–29. doi: 10.1521/ijct.2015.8.2.114.
9. Tucker RP, Lengel GJ, Smith CE, Capron DW, Mullins-Sweatt SN, Wingate LR. Maladaptive Five Factor Model personality traits associated with Borderline Personality Disorder indirectly affect susceptibility to suicide ideation through increased anxiety sensitivity cognitive concerns. *Psychiatry Res*. 2016;**246**:432–7. doi: 10.1016/j.psychres.2016.08.051.
10. Andrewes HE, Hulbert C, Cotton SM, Betts J, Chanen AM. Relationships between the frequency and severity of non-suicidal self-injury and suicide attempts in youth with borderline personality disorder. *Early Interv Psychiatry*. 2017;**13**(2):194–201. doi: 10.1111/eip.12461.
11. Rogers ML, Joiner TE. Borderline Personality Disorder Diagnostic Criteria as Risk Factors for Suicidal Behavior Through the Lens of the Interpersonal Theory of Suicide. *Arch Suicide Res*. 2016;**20**(4):591–604. doi: 10.1080/13811118.2016.1158681.
12. Krause-Utz A, Erol E, Brousianou AV, Cackowski S, Paret C, Ende G, et al. Self-reported impulsivity in women with borderline personality disorder: the role of childhood maltreatment severity and emotion regulation difficulties. *Borderline Pers Disord Emot Dysregul*. 2019;**6**(1). doi: 10.1186/s40479-019-0101-8.
13. Reichl C, Kaess M. Self-harm in the context of borderline personality disorder. *Curr Opin Psychol*. 2021;**37**:139–44. doi: 10.1016/j.copsyc.2020.12.007.
14. Scoglio AA, Kraus SW, Saczynski J, Jooma S, Molnar BE. Systematic Review of Risk and Protective Factors for Revictimization After Child Sexual Abuse. *Trauma Violence Abuse*. 2019;**22**(1):41–53. doi: 10.1177/1524838018823274.
15. Krause-Utz A, Dierick T, Josef T, Chatzaki E, Willem A, Hoogenboom J, et al. Linking experiences of child sexual abuse to adult sexual intimate partner violence: the role of borderline personality features, maladaptive cognitive emotion regulation, and dissociation. *Borderline Pers Disord Emot Dysregul*. 2021;**8**(1). doi: 10.1186/s40479-021-00150-0.
16. Abbasian M, Pourshahbaz A, Taremian F, Poursharifi H. The Role of Psychological Factors in Non-suicidal Self-injury of Female Adolescents. *Iran J Psychiatry Behav Sci*. 2021;**15**(1). doi: 10.5812/ijpbs.101562.
17. Ahmed SP, Bittencourt-Hewitt A, Sebastian CL. Neurocognitive bases of emotion regulation development in adolescence. *Dev Cogn Neurosci*. 2015;**15**:11–25. doi: 10.1016/j.dcn.2015.07.006.
18. Hennings JM. Function and Psychotherapy of Chronic Suicidality in Borderline Personality Disorder: Using the Reinforcement Model of Suicidality. *Front Psychiatry*. 2020;**11**(199). doi: 10.3389/fpsyt.2020.00199.
19. Kolbeck K, Moritz S, Bierbrodt J, Andreou C. Borderline Personality Disorder: Associations Between Dimensional Personality Profiles and Self-Destructive Behaviors. *J Pers Disord*. 2019;**33**(2):249–61. doi: 10.1521/pedi_2018_32_346.
20. Gone JP, Kirmayer LJ. On the wisdom of considering culture and context in psychopathology. *Contemporary directions in psychopathology: Scientific foundations of the DSM-V and ICD-11*. New York, USA: The Guilford Press; 2010. p. 72–96.
21. Lundman B, Graneheim UH. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;**24**(2):105–12. doi: 10.1016/j.nedt.2003.10.001.
22. Carter N, Bryant-Lukosius D, DiCenso A, Blythe J, Neville AJ. The Use of Triangulation in Qualitative Research. *Oncology Nursing Forum*. 2014;**41**(5):545–7. doi: 10.1188/14.Onf.545-547.
23. Bouvard M, Fontaine-Buffe M, Cungi C, Adeleine P, Chapoutier C; Durafour. [Preliminary studies of the structured diagnostic interview for personality disorders: SCID II]. *Encephale*. 1999;**25**(5):416–21. French. [PubMed: 10598304].
24. Kyngäs H, Mikkonen K, Kääriäinen M. *The Application of Content Analysis in Nursing Science Research*. Springer; 2020. doi: 10.1007/978-3-030-30199-6.
25. Shneidman ES. Commentary: Suicide as Psychache. *J Nerv Ment Dis*. 1993;**181**(3):145–7. doi: 10.1097/00005053-199303000-00001.
26. Doering S, Miller CE, Townsend ML, Day NJ, Grenyer BF. Measuring the shadows: A systematic review of chronic emptiness in borderline personality disorder. *PLoS One*. 2020;**15**(7). doi: 10.1371/journal.pone.0233970.

27. Fox KR, Franklin JC, Ribeiro JD, Kleiman EM, Bentley KH, Nock MK. Meta-analysis of risk factors for nonsuicidal self-injury. *Clin Psychol Rev*. 2015;**42**:156–67. doi: 10.1016/j.cpr.2015.09.002.
28. Somma A, Sharp C, Borroni S, Fossati A. Borderline personality disorder features, emotion dysregulation and non-suicidal self-injury: Preliminary findings in a sample of community-dwelling Italian adolescents. *Pers Ment Health*. 2017;**11**(1):23–32. doi: 10.1002/pmh.1353.
29. Links PS, Eynan R, Heisel MJ, Barr A, Korzekwa M, McMain S, et al. Affective Instability and Suicidal Ideation and Behavior in Patients with Borderline Personality Disorder. *J Pers Disord*. 2007;**21**(1):72–86. doi: 10.1521/pedi.2007.21.1.72.
30. Andover MS. Non-suicidal self-injury disorder in a community sample of adults. *Psychiatry Res*. 2014;**219**(2):305–10. doi: 10.1016/j.psychres.2014.06.001.
31. Tomko RL, Trull TJ, Wood PK, Sher KJ. Characteristics of borderline personality disorder in a community sample: comorbidity, treatment utilization, and general functioning. *J Pers Disord*. 2014;**28**(5):734–50. doi: 10.1521/pedi_2012_26_093. [PubMed: 25248122]. [PubMed Central: PMC3864176].
32. Heath LM, Laporte L, Paris J, Hamdullahpur K, Gill KJ. Substance Misuse Is Associated With Increased Psychiatric Severity Among Treatment-Seeking Individuals With Borderline Personality Disorder. *J Pers Disord*. 2018;**32**(5):694–708. doi: 10.1521/pedi_2017_31_307.
33. Lee Y, Keum M, Kim H, Cheon E, Cho Y, Koo B. Defense Mechanisms and Psychological Characteristics According to Suicide Attempts in Patients with Borderline Personality Disorder. *Psychiatry Investig*. 2020;**17**(8):840–9. doi: 10.30773/pi.2020.0102.
34. Kofler MJ, McCart MR, Zajac K, Ruggiero KJ, Saunders BE, Kilpatrick DG. Depression and delinquency covariation in an accelerated longitudinal sample of adolescents. *J Consult Clin Psychol*. 2011;**79**(4):458–69. doi: 10.1037/a0024108.
35. Reilly ME, Hines DA. Distress Tolerance as a Mediator of the Association Between Borderline Personality Symptoms and Obsessive Relational Intrusion: An Exploratory Analysis. *J Interpers Violence*. 2017;**35**(19-20):3833–48. doi: 10.1177/0886260517712274.
36. Anestis MD, Gratz KL, Bagge CL, Tull MT. The interactive role of distress tolerance and borderline personality disorder in suicide attempts among substance users in residential treatment. *Compr Psychiatry*. 2012;**53**(8):1208–16. doi: 10.1016/j.comppsych.2012.04.004.
37. Stead VE, Boylan K, Schmidt LA. Longitudinal associations between non-suicidal self-injury and borderline personality disorder in adolescents: a literature review. *Borderline Pers Disord Emot Dysregul*. 2019;**6**(1). doi: 10.1186/s40479-019-0100-9.
38. Yen S, Shea M, Sanislow CA, Grilo CM, Skodol AE, Gunderson JG, et al. Borderline Personality Disorder Criteria Associated With Prospectively Observed Suicidal Behavior. *Am J Psychiatry*. 2004;**161**(7):1296–8. doi: 10.1176/appi.ajp.161.7.1296.
39. Ibrahim J, Cosgrave N, Woolgar M. Childhood maltreatment and its link to borderline personality disorder features in children: A systematic review approach. *Clin Child Psychol Psychiatry*. 2017;**23**(1):57–76. doi: 10.1177/1359104517712778.
40. Aouidad A, Cohen D, Mirkovic B, Pellerin H, Garny de La Rivière S, Consoli A, et al. Borderline personality disorder and prior suicide attempts define a severity gradient among hospitalized adolescent suicide attempters. *BMC Psychiatry*. 2020;**20**(1):525. doi: 10.1186/s12888-020-02930-4.
41. Miljkovitch R, Deborde AS, Bernier A, Corcos M, Speranza M, Pham-Scottez A. Borderline Personality Disorder in Adolescence as a Generalization of Disorganized Attachment. *Front Psychol*. 2018;**9**. doi: 10.3389/fpsyg.2018.01962.
42. Akbari Dehaghi A, Kaviani H, Tamanaeefar S. Problem-solving deficits in Iranian people with borderline personality disorder. *Iran J Psychiatry Behav Sci*. 2014;**8**(4):12–8. [PubMed: 25798169]. [PubMed Central: PMC4364472].
43. Koudys JW, Gulamani T, Ruocco AC. Borderline personality disorder: Refinements in phenotypic and cognitive profiling. *Curr Behav Neurosci Rep*. 2018;**5**(1):102–12. doi: 10.1007/s40473-018-0145-x.
44. Sommer JL, Blaney C, Mota N, Bilevicius E, Beatie B, Kilborn K, et al. Dissociation as a Transdiagnostic Indicator of Self-Injurious Behavior and Suicide Attempts: A Focus on Posttraumatic Stress Disorder and Borderline Personality Disorder. *J Trauma Stress*. 2021;**34**(6). doi: 10.1002/jts.22726.