

## The Prevalence of Borderline Personality Symptoms in Adolescents

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**Objective:** This study aimed to assess the prevalence of borderline personality symptoms in 16-18 year old adolescents.

**Methods:** In this cross sectional – descriptive study, 422 high school students (211 boys, 211 girls) aged 16-18 were selected by cluster random sampling and simple random sampling in 2011-2012. The participants were assessed using the revised diagnostic interview for borderline questionnaire (DIB-R) and demographic questionnaire. Data were analyzed using Pearson correlation coefficient and Spearman correlation coefficient.

**Results:** Of the participants, 0/9% (0/22 % of the 16 year olds, 0.45 % of the 17 year olds and 0/22% of the 18 year olds) were diagnosed with borderline personality symptoms. Also, the prevalence of borderline personality symptoms in boys was 0/45 % of the total sample and it was 0/45 % of the total sample in girls. With respect to the relationship between demographic variables (age, sex, location, parents' occupation, parents' kinship, parents' education and birth order) and borderline personality symptoms, only parents' kinship showed a weak correlation with borderline personality symptoms .

**Conclusion:** In the view of the prevalence of 0.9% of the borderline personality symptoms in adolescents, attention should be paid to the diagnosis and treatment of this disorder. Furthermore, works need to be done to improve the mental health and quality of life of adolescents.

**Keywords:** *Borderline personality symptoms, Prevalence, Adolescents, Tehran, Iran*

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**B**orderline personality disorder (BPD) is a pervasive pattern of instability of interpersonal relationships, self-image, affects and marked impulsivity productivity that appears in the variety of fields. People suffering from borderline personality disorder show signs of hysterical attempts to avoid real or imaginary abandonment, self- mutilation or frequently threaten to commit suicide, affective instability, chronic feelings of emptiness, inappropriate anger and transient paranoid thinking (1-2).

Not many studies have been done on the epidemiology of psychiatric disorders in adolescents, especially in the field of personality disorders. One of the reasons could be label borderline personality disorder BPD. However, the researchers have started to investigate and diagnose the symptoms and borderline signs in adolescents, and it is imagined that the prevalence of this disorder may be more than what it is supposed to be (3).

In the past six decades, many theorists and researchers with their insight and research data tried and helped to understand the term "borderline." The term "borderline" was applied for the first time by Adolph Stern (1938) to describe a group of patients

that were between psychotic and neurotic disorders. The term has been used to describe the patients that showed psychotic thought processes, behavior under great stress and relatively quickly returned to healthier levels of function (4-5).

Some clinical researchers have studied the validity of the diagnosis of personality disorders in children and adolescents, and noted that as long as personality disorders as a pervasive and relatively stable pattern of experience, adaptability and communication is defined, children and adolescents are involved in a process of very fluid growth (6).

Other clinical researchers and character theorists (for example, Kernberg, 1990; Kernberg et al, 2000) claim that personality disorders protests often in adolescence or even before are diagnosable, and this concept includes the criteria of diagnosis of personality disorder according to the DSM (7).

Other studies have also supported this idea. For example, a study was conducted on 299 patients aged 14, 18 and 24. The findings of the initial assessment have shown some axis II disorders, particularly BPD in adolescents (8). In an early study, it was found that 30% of depressed adolescents hospitalized and not hospitalized (outpatients) had factors of BPD. However, this generalization is limited to the prevalence of clinical samples (9).

In a community-based longitudinal study of 733 individuals aged 9 to 19 years it was found that when the desired groups to average age 16/3 arrived, at least in one of the personality disorders symptoms were (according to DSM III-R). These findings show the high prevalence of BPD pathology in adolescents. Of course, these results should be interpreted with caution and should be investigated further. The findings that suggest the prevalence of 1.3 % axis II disorder or borderline in adolescents is also questionable (APA, 2000). The recent DSM criteria do not apply to adolescents and this may cause the high prevalence of the errors (10).

In the study by Bernstein et al. (1993) in which some of the available diagnostic interviews and self-reported evaluations were selected, instead of the previous evaluations, it was found that BPD can be diagnosed through specific evaluation and assessment (11).

It seems that there is no research about the prevalence of borderline personality symptoms in adolescents in Iran. Questions such as the prevalence of borderline personality symptoms in adolescents and its relationship with demographic characteristics (age, sex, location, parents' kinship, parents' occupation, parents' education, birth order) are still unanswered. This study aimed to assess the prevalence of borderline personality symptoms in 16 – 18 year old adolescents in Tehran.

## Material and Methods

### *Participants*

This was a cross-sectional descriptive study performed on the high school and college students aged 16 – 18. The statistical population consisted of 16-18 year old boy and girl students in Tehran. The descriptive research is used to determine the sample size Morgan Table, that for population size 1000 and higher, we into consideration 384. 422 samples have been used in this study.

Among the 19 education zones of Tehran, five zones of north, south, east, west, and center were selected using the cluster random sampling method. In the second stage, a list of all public and private schools was provided, and high school students of these five zones were selected. Then of each zone, 4 schools (2 boys and 2 girl's schools) were selected with the simple random sampling method. Next, 21 students with ages of 16,17 and 18 were selected from each school by the simple random sampling method .

Individually, with regard to secrecy and preservation of the moral values in the research the area of humanities, 422 questionnaires (211 boys and 211 girls) were completed in order to assess the prevalence of borderline personality symptoms with a questionnaire for collecting adolescents' demographic

information with clinical Interview by a trained clinical psychologist.

Revised Diagnostic Interview for Borderlines (DIB-R) The revised diagnostic interview for borderlines questionnaire (DIB-R), which is a semi-structured interview was used in this study. This questionnaire collects information in four domains that is thought to be of importance in the diagnosis of borderline personality disorder including: affect, cognition, impulse action patterns and interpersonal relationships. This assessment consists of 97 questions related to thinking, feeling and patient's behavior in the past two years. The interview is divided into 24 sub-sections, and information that is obtained from 22 sub-sections and is used for calibration of 22 scales shown with capitalized letters called the summary statements. Each of these statements is an important diagnostic criterion for borderline personality disorder, and is used to assess the existence or nonexistence of this disorder. Information of the other two sub-sections is used the inverse in opposite diagnosis of borderline disorder (Questions # 24 and 58), and are used respectively in determining the patient's final score in parts of affect and cognition (12).

The DIB showed good total internal consistency. The overall has been (Kappa coefficient 0/70 and correlation coefficient of internal 0/80). In some studies, the test, retest reliability has been good (kappa = 0/71; r = 0/71). In a study, high internal reliability for the total score DIB has been (Kuder-Richardson = 0/75) (13).

The primary reliability, with the test-retest method on 30 participants within a week with the correlation coefficient (DIB-R) was 0/81(14).

The psychometric characteristics of the (DIB-R) Spanish version were assessed in a sample of 156 patients with the possible diagnosis of borderline personality disorder. There were 29 men and 127 women with a mean age of 27.6 years (Standard deviation: 6/5; range: 18-45). The Spanish adaptation of the Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II) was used as gold standard. The DIB-R showed good total internal consistency (Cronbach's alpha: 0/89) and high inter-rater reliability (within-class correlation: 0/94). Using logistic regression analyses, the best cut-off was judged to be 6 or more, obtaining high sensitivity (0/81), specificity (0/94) and moderate convergent validity of the diagnosis with the SCID-II (kappa: 0/59)(15).

## Results

The mean age in this study was 16/95, and the standard deviation was 0/811. The sample demographic data are presented in Table 1, the prevalence of borderline personality symptoms is shown in Tables 1, 2, 3, and statistical significance is demonstrated in Table 4.

**Table 1: The Frequency and percent of location, parents' kinship, birth order, with the prevalence of borderline personality symptoms**

Variable	Frequency of students		Prevalence of borderline personality symptoms	
		n(%)		n(%)
Location of Tehran	North	85(20/1)		0(0)
	South	83(19/7)		1(0/22)
	East	85(20/1)		2(0/45)
	West	84(19/9)		1(0/22)
	Central	85(20/1)		0(0)
	Total	422(100)		4(0/9)
Parents kinship	Yes	111(26/3)		3(0/67)
	No	311(73/7)		1(0/22)
	Total	422(100)		4(0/9)
Birth order	First offspring	199(47/2)		3(0/67)
	Second	121(28/7)		1(0/22)
	Third	50(11/8)		0(0)
	Fourth	30(7/1)		0(0)
	Fifth	11(2/6)		0(0)
	Sixth	8(1/2)		0(0)
	Seventh and more	3(0/7)		0(0)
	Total	422(100)		4(0/9)

**Table 2: The prevalence and percent of population with borderline personality symptoms to separation age and sex**

Variable	Sex	Boy	Girl	Total
		n(%)	n(%)	n(%)
Age	16 years	1(0/22)	0(0)	1(0/22)
	17 years	1(0/22)	1(0/22)	2(0/45)
	18 years	0(0)	1(0/22)	1(0/22)
	Total	2(0/45)	2(0/45)	4(0/9)

**Table 3: The Prevalence and percent of population with borderline personality symptoms to separation parents of education and occupation**

Variable	n(%)	Father	Mother	Total
		n(%)	n(%)	n(%)
Parents education Illiterate	2(0/45)	1(0/22)	3(0/67)	
	Guidance school	0(0)	1(0/22)	1(0/22)
	Associate degree	0(0)	1(0/22)	1(0/22)
	BA	2(0/45)	1(0/22)	3(0/67)
Parents occupation Release	3(0/67)		0(0)	3(0/67)
	Employee	1(0/22)	1(0/22)	2(0/45)
	Housekeeper	0(0)	3(0/67)	3(0/67)

**Table 4: The demographic variables and statistical significance of students**

Variable	Pearson correlation	Statistical significance
Age	0/005	0/458
Sex	0/000	0/500
Location	0/000	0/499
Father occupation	- 0/023	0/319
Mother occupation	- 0/008	0/433
Father education	- 0/029	0/277
Mother education	- 0/009	0/429
Birth order	- 0/057	0/123
Kinship Parents	- 0/108	0/026*

Significant\*

## Discussion

The present study; the prevalence of borderline personality symptoms in the general population 16-18

years old, was 0/9; and with the results of other studies on children and adolescents are in agreement. For example, In a study done by Chabrol et al. (2001) on the over 1300 French high school students between the ages of 11-17, that was 15% samples male and 17/2%

samples female, from the screening personality disorders test and the revised diagnostic interview for borderlines (DIB-R) was used. The total prevalence BPD, the maximum 14% was estimated (16).

Becker et al. (2002) in a clinical comparing that on adolescents hospitalized (53%) with adults (47%), they found that there was not a significant difference in the prevalence of BPD (17).

Marton et al. (1989) found that BPD is the most common personality disorder (i.e., 30%) in a sample of depressed adolescents (9).

Korenblum et al. (1990) conducted a longitudinal assessment on the personality disorders of cluster A, B and C, particularly BPD, in children aged 13, 16, and 18 and found that those diagnosed in the cluster B, were 13 year olds; 40% of the samples showed dysfunction personality, compatible is with personality disorders obtained from cluster B, the group age 18 years old. When the stability of BPD about 2 years in adolescents was studied, rate was relatively low stability (for example, the range of 23% - 33% )(18).

The large epidemiological study on an English population was done by Zanarini (2003); in which 3/3 % out of 10000 persons being 11 years old had full diagnostic criteria for BPD. Figures found the figure 2% estimated prevalence in the adult general population is near and most of it (APA, 2000) (19).

In a study the relationship between psychopathology in childhood and personality disorders in adulthood was investigated in a sample of 551 adolescents aged 9 - 16. Participants according to the DSM-III-R criteria were assessed in three cases over 10 years. The results showed that diagnostic and prediction of personality disorder in adolescents in the same cluster of adults' personality disorder is diagnosed independent of the axis I. Moreover, the comorbidity of axis I and axis II disorders was a significant amount more than of total adolescents' personality disorder.

The results obtained very similar for cluster B personality disorders in a period of 8 years in a community sample of adolescents show that diagnostic personality disorders, such as BPD may be in period adolescence not only is the value, also may help to inform for treatment and preventing the chain of maladaptive behaviors; that is growing and become converting to intrinsic behavior and rooted (20).

In a study that Leung SW, leung F (2009) did on 4110 high school students, the prevalence of BPD, with attention to accurate diagnostic methods used in this study was 2% among Chinese Adolescents in Hong Kong (21).

Several researches showed that women are significantly more likely to have the criteria of BPD as compared to men, even when controlling for depression. The prevalence of BPD in female adolescents with conduct disorder and psychiatric in patient samples about 31% to 61%, while their male counterparts had a range of 0% to 39% (22 - 25). However, this gender difference had not been shown in a community sample adolescents. This study showed

BPD diagnostic criteria 11% with gender difference non-significant (10).

In a study done by Carla Sharp et al (2011) studied on 111 adolescents 12 to 17 years old with using of semi-structured clinical interviews, it showed that 23% of samples have BPD criteria (26).

In the present study the prevalence of borderline personality symptoms in boys 0/45 % of total and in girls 0/45 % of total. The association between demographic variables (age, sex, location, parents' occupation, parents' kinship, parents education and birth order) with borderline personality symptoms, only parents kinship with borderline personality symptoms showed a weak correlation; that showed genetic is important in the incidence and Prevalence sickness, particularly Psychiatric disorders.

Generally, it seems that although the prevalence of borderline personality symptoms in this study, with many of studies done in this field is same orientation, but with some of study of the prevalence is different. First, this difference is can relate to cultural issues, religious and social norms in adolescents answer to questions, and Second, this study done on non-clinical and most studies that have reported a high prevalence have done their research on clinical groups.

Results obtained from this study and other studies show that borderline personality symptoms from period Adolescence (16 years old) is visible and diagnosis; and in answer to the original question this study, that, do borderline personality symptoms in adolescents is similar borderline personality disorder symptoms in adults? Answer is positive; that may be behavioral science specialists can a separate category, such as conduct disorder for adolescents borderline personality symptoms to make in the DSM.

## Conclusion

This study showed 0/9% prevalence of borderline personality symptoms in high school students in Tehran. Although the findings of this study cannot be generalized to the whole of Iran, it can be used as a basis to further epidemiological studies for borderline personality symptoms in adolescents. Also it can be used in planning specialists and country health planners, improvement, and health provide health services to adolescents.

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