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Psychiatric Comorbidities Among Suicide Attempters in Northern Bangladesh

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ABSTRACT

Background: A serious issue for public health services is the prevention of suicide and suicide attempts. Suicide is the act of ending one's own life and the causes behind suicide attempts are also distinct. In Bangladesh, the clinical features of these patients have not been sufficiently investigated from a psychosocial and psychiatric perspective. ***Objective:*** The purpose of this study was to evaluate the psychiatric comorbidities, their prevalence and sociodemographic profile of suicide attempters who were admitted to several Rajshahi Division's hospitals. ***Methodology:*** A descriptive, cross-sectional study was carried out using a multi-stage random sampling procedure. A total of 310 suicide attempters in the previous 12 months made up the study's sample. A semi-structured interview questionnaire was used for data collection. ***Result:*** According to the results, females (59.7%) are more than males (40.3%). Among the patients, 72.3% had psychiatric comorbidities. Common mental comorbidities included adjustment disorder (23.5%), major depressive disorder (22.3%), personality disorder (8.1%), generalized anxiety disorder (3.9%), schizophrenia (2.9%) etc. Moreover, age at first marriage, occupation, gender and family structure were found to be significant sociodemographic factors associated with different psychiatric comorbidities among suicide attempters. ***Conclusion:*** Routine psychiatric and psychosocial assessments should be implemented since patients who have attempted suicide frequently have psychiatric disorders and related co-morbidities.

Keywords: Suicide Attempt, Psychiatric Comorbidity, Sociodemographic Profile.

INRODUCTION

Being understudied in Bangladesh, suicide is a multifaceted, worldwide and complicated public health issue.[1-4] In general hospitals, suicide attempt is a prevalent clinical issue. Suicide risk is higher for people with psychiatric illnesses.[5] Comorbid psychiatric problems have been seen in 7% to 82% of people who have attempted suicide takes the lives of almost seven lac persons annually worldwide, with a suicide mortality rate of 16 per 100,000 and 39.6 per 100,000 in Bangladesh.[4, 6,7]. Psychiatric comorbidity among people who have attempted suicide refers to mental illnesses and problems that require adequate medical care among those who have attempted suicide which was determined by psychiatrists using the Diagnostic and Statistical Manual of Mental Disorders.[8] Although there are many contributing elements to suicidal behavior, it is evident that psychiatric problems play a significant role in its etiology. According to the research, which comes mostly from high-income countries (HIC), 92% of persons who try suicide and 80% to 90% of people who die by suicide had a mental illness and treating these disorders is probably going to help prevent suicide.[9]

It has been found in most studies that depression, which commonly coexists with other medical problems, is the most common psychiatric illness associated with adolescent suicide and suicidal thoughts and behaviors. Major Depressive Disorder is the most serious emotional

element that contributes to suicide cases. Besides, poor academic achievement, professional failure, low self-esteem, and a lack of stress management skills might all have an effect on the suicide rate. Suicidal attempts appeared to be statistically correlated with relationship problems, hopelessness, loneliness, annoyance, and despair. According to experts, issues including schizophrenia, alcohol and other drug addiction, anxiety disorders, bipolar disorders, and depressive disorders are usually the reason behind the majority of suicide attempts. The Executive Director of the Bangladesh Society for the Enforcement of Human Rights (BSEHR) claims that the primary causes of suicide attempts among young people are drug abuse, childhood trauma, impulsivity, and hopelessness. A mental breakdown amid a personal crisis is more likely to occur in those who have trouble managing their stress and low self-esteem.[8,10,11]

Objectives

To identify the psychiatric comorbidities among suicide attempters in Northern Bangladesh

To determine the prevalence of psychiatric comorbidities

To examine the associated factors of the psychiatric comorbidities

METHODOLOGY

It was cross-sectional and quantative study. The Rajshahi Division, Bangladesh was chosen as the study's target location. The study population consisted of patients who had attempted suicide and were receiving treatment at various hospitals in the Rajshahi division. Samples were chosen using a multi-stage random sampling technique. A total of 310 samples were included in the study.

Sample Size and Sampling Techniques

A mixed-type multi-stage random sampling technique was used. Four Upazila Health Complexes, two Sadar hospitals, and one tertiary hospital were chosen at random for the first phase. The hospital's record books provided all of the patient information. A sample of all patients who attempted suicide and sought treatment at the designated hospitals throughout the study period, as well as those who sought treatment at the designated hospitals within the previous 12 months, was drawn.

Inclusion Criteria

Suicide attempts made by patients of all ages who were treated at particular hospitals of Rajshahi Division during the study period.

Being open to taking part in the research.

Having a minimal level of comprehension and communication skills.

Exclusion Criteria

Committed deliberate self-harm but had no intention to die.

Those who attempted suicide more than one year ago.

Those who did not receive treatment in Rajshahi Division at certain hospitals.

Data Collection Procedure

Face-to-face interviews with the respondents were conducted with the appropriate ethical procedure. Semi-structured questionnaires were utilized in clinical and sociodemographic interviews. A psychiatrist confirm the diagnosis based on the DSM-5 criteria. A semi-structured questionnaire was developed to collect data. Initially, the location of suicide attempters were identified from the chosen hospitals then data collectors were visited the home. The supervision and monitoring team kept a close eye on the data collection process.

Statistical Analysis

All data gathered from the respondents were input into a computer, where it was sorted, coded, and stored for analysis using SPSS (IBM, Version 22) and Microsoft Excel. The mean and standard deviation for the quantitative variables in this study, as well as the frequency and percentage distributions for the qualitative variables, were determined using descriptive statistics. The chi-square test was used in this study to look at the relationship between several socioeconomic, demographic, behavioral, and other health-related characteristics and outcome variables (patients or non-patients). After that, the logistic regression models took into account the significant factors.

RESULTS

The study included 310 patients in total who had attempted suicide with more frequency for women (185, 59.7%) than men (125, 40.3%). With a mean age of 24.45±0.53 years, their ages spanned from 10 to 50, with 219, or 70.6%, of them falling into the 18–39 years' age bracket. The majority of respondents (256, 82.6%) were from rural areas, while 199, 64.2% were from nuclear households (Table-1).

Table-1: Sample Characteristics Based on Their Categories

Variables Category	Frequency N (%)	Variables, Category	Frequency N (%)
Living location		**Type of family**	
Urban	54 (17.4)	Nuclear	199 (64.2)
Rural	256 (82.6)	Joint	111 (35.8)
Gender		**Age**	63 (20.3)
Male	125 (40.3)	≤17 years	219 (70.6)

Female	185 (59.7)	18-39 years	28 (9.10)
		≥40 years	
Education level		**Occupation**	
High education	55 (17.7)	Service-Business	24 (7.7)
Secondary education	152 (49.0)	Agriculture-Labor	47 (15.2)
Primary education	76 (24.5)	Students	119 (38.4)
No education	27 (8.7)	Housewife-unemployed-others	120 (38.7)
Number of family members		**Monthly family income**	
1-2 members	20 (6.5)	Low (<12000 BDT)	140 (45.2)
3-4 members	141 (45.5)	Lower middle (12001-45000 BDT)	148 (47.7)
5-6 members	106 (34.2)	Upper Middle High	22 (7.1)
≥7 members	43 (13.8)	(≥45001 BDT)	
Marital status		**Lifetime suicidal ideation**	
Unmarried	121 (39.0)	No	239 (77.1)
Married	189 (61.0)	Yes	71 (22.9)
Mental comorbidity		**Family history of mental disorders**	
No	256 (82.6)	No	271 (87.4)
Yes	54 (17.4)	Yes	39 (12.6)
Last 12-month suicidal ideation		**Family history of suicide attempt**	
No	228 (73.5)	No	284 (91.6)
Yes	82 (26.5)	Yes	26 (8.4)

It was shown that 72.3% of the patients had mental comorbidities. Most of the suicide attempter also had adjustment disorder (23.5%), which was the highest percentage. Major depressive disorder (22.3%), intermittent explosive disorder (8.4%), generalized anxiety disorder (3.9%), schizophrenia (2.9%), personality disorder (8.1%), and a few other mental disorders had slightly lower rates accordingly (Table-2).

Table-2: Diagnosed Psychiatric Comorbidities Among Suicide Attempters

Psychiatric Comorbidities	Frequency	Percent	Valid Percent	Cumulative Percent
Adjustment Disorder	73	32.6	32.6	32.6
Schizophrenia	09	4.0	4.0	36.6
Conversion Disorder	01	0.4	0.4	37.1
Major Depressive Disorder	69	30.8	30.8	67.9
Intermittent Explosive Disorder	26	11.6	11.6	79.5
Substance Related Disorder	05	2.2	2.2	81.7
Generalized Anxiety Disorder	12	5.4	5.4	87.1
Obsessive Compulsive Disorder	02	0.9	0.9	87.9
Personality Disorder	25	11.2	11.2	99.1
Postpartum Psychosis	01	0.4	0.4	99.6
Sexual Dysfunction	01	0.4	0.4	100.0
Total	224	100.0	100.0	

Sociodemographic Profile

Several psychiatric disorders were significantly correlated with gender. Adjustment Disorder was more common in women (37.4%) than in men (24.7%) (χ^2=3.87, p=0.049). Males were more likely to have Major Depressive Disorder (42.4%) than females (23.7%) (χ^2=8.57, p=0.003), while females were substantially more likely to have Personality Disorder (20 out of 139; 14.5%) than males (5.9%) (χ^2=3.85, p=0.049). Intermittent explosive disorder and age were strongly correlated (χ^2=6.495, p=0.039), with a higher prevalence in younger age groups (21.1% in ≤17 years vs. 11.1% in 18–39 vs. 0% in ≥40). Major depressive disorder and family type were significantly correlated; those from nuclear families were more likely to have it (35.5%) than those from joint families (49 out of 23.3%) (χ^2=3.731, p=0.049). Adjustment disorder was substantially correlated with occupation (χ^2=15.50, p=0.001), and it was more common among unemployed people (44 out of 96; 45.8%) than among students (15 out of 81; 18.5%) and laborers and agriculturalists (8 out of 30; 26.7%). Additionally, there was a strong correlation between marital status and Depression as well as adjustment disorder. Adjustment Disorder was less common in unmarried people (16.3%) than in married people (41.7%) (χ^2=15.123, p=0.000), while major depressive disorder was more common in unmarried people (41.3%) than in married people (25.0%) (χ^2=6.371, p=0.012). Finally, there was a significant correlation between Personality Disorder and age at first marriage (χ^2=4.273, p=0.039). Personality disorder was more prevalent among those

married before the age of 18 (15.2%) than among those married at or after the age of 18 (4.6%).

Table-3: Statistically Significant Associations between Mental Disorders and Sociodemographic Characteristics

Disorder	Gender	Age	Family Type	Occupation	Marital Status	Age at Marriage
Adjustment Disorder	(χ^2=3.87, p=0.049) Male: 24.7% Female: 37.4%			(χ^2=15.5, p=0.001) Unemployed: 45.8% , Student: 18.5% Agri/Labor: 26.7%	(χ^2=15.12, p=0.001) Married: 41.7% Unmarried: 16.3%	
MDD	(χ^2=8.57, p=0.003) Male: 42.4% Female: 23.7%		(χ^2=3.73, p=0.049) Nuclear: 35.5% Joint: 23.3%		(χ^2=6.37, p=0.012) Married: 25.0% Unmarried: 41.3%	
IED		(χ^2=6.49, p=0.039) ≤17 yrs: 21.1% 18–39 yrs: 11.1% ≥40 yrs: 0%				
Personality Disorder	(χ^2=3.85, p=0.049) Male: 5.9% Female: 14.5%					(χ^2=4.27, p=0.039) <18 yrs: 15.2% ≥18 yrs: 4.6%

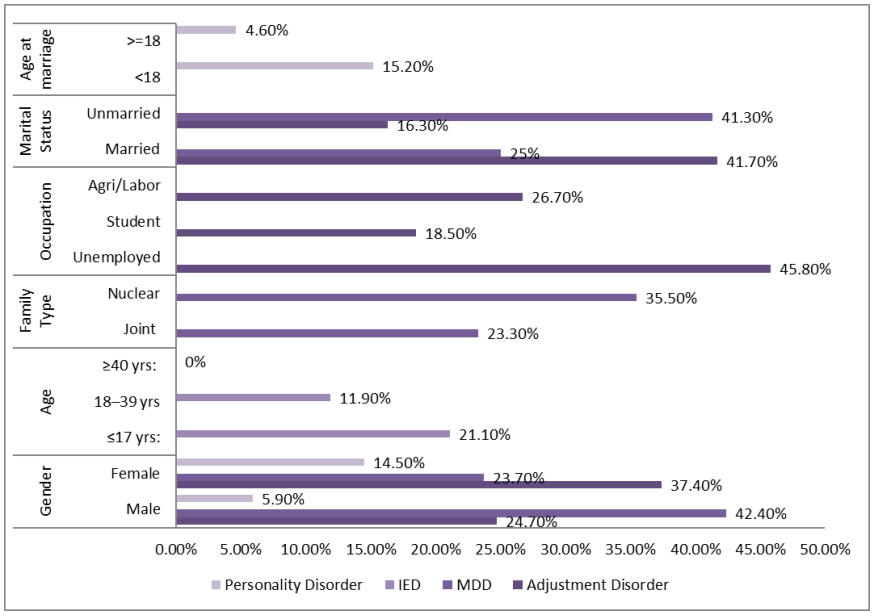

Figure-1: Statistically Significant Associations between Mental Disorders and Sociodemographic Characteristics

NB: MDD: Major Depressive Disorder; IED: Intermittent Explosive Disorder

DISCUSSION

The study was carried out to investigate the socio-demographic factors and psychiatric comorbidities related to suicide attempts. It was a cross-sectional quantitative study having 310 samples to study using a multistage random sampling procedure. The data were analyzed using IBM SPSS (version 22). According to the results of the regression analysis, females were more likely than males to

attempt suicide. This result was consistent with most pertinent study carried out globally, including in Bangladesh.[12,13] The findings also showed that respondents who were between the ages of 18 and 39 and those who were less than or equal to 17 years old were more likely to attempt suicide. This result was consistent with pertinent research on suicide attempts, which found that teens (15–17 years old) were more vulnerable and that the age group with the highest vulnerability rate was approximately 18–40 years old.[2,7,14,15]

Additionally, the results indicated a higher likelihood of suicide attempts among respondents who were married. Again, the findings showed that the likelihood of attempting suicide was higher for housewives, students, jobless individuals, and those in other occupations. These findings were persistent with several comparable studies that found that the likelihood of suicide increased for jobless people. Another study found that unemployment was a risk factor for suicide attempts.[17,18] Moreover, a number of studies have demonstrated that people who have a family history of suicide, concomitant mental diseases, and a higher probability of suicidal thoughts and attempts are more vulnerable.[18-22]

As can be seen from the frequency distribution of respondent's mental comorbidities, adjustment disorder was the most common mental comorbidity among the attempters (23.5%), followed by major depressive disorder (22.3%). MDD was the most prevalent mental disease among those who tried suicide, according to relevant researchs.[23,24] However, our study found that the rate of attempted suicide was slightly higher among those with AD than among those with MDD. The majority of people who tried suicide did not seek therapy from psychiatrists prior to or after their attempt, which is most likely the cause of this contradictory finding given the body of current data. And a lack of motivation to seek mental health therapy could have contributed to this. In addition, many of them made sudden attempts due to difficult circumstances. Additionally, other studies found that personality, stress, and anxiety problems were the main causes of these issues.[13, 25-27] The sociodemographic profile showed that women, married people, and those who were unemployed, were most likely to have adjustment disorder. This result was consistent with other studies that found similar outcomes for occupational role and gender. Numerous research have also revealed that unmarried persons are more likely to experience adjustment disorder.[28,29] This discrepancy might result from the fact that the majority of our study participants were married and it has also been observed that marital conflict is increasing which need further researche. Once again, the results showed that men, unmarried, and those living in nuclear families were more likely to have major depressive disorder. The results for gender and family structure were consistent with the majority of earlier studies, although there are conflicting findings on marital status. Married persons are more likely to experience depression, according to many studies.[30,31] This discrepancy may have arisen because, rather than having depression, the majority of our subjects attempted suicide at a younger age as a result of adjustment issues. According to our research, personality disorders are more prevalent in women with early marriage. This result is consistent with other pertinent earlier investigations.[32,33] Furthermore, it has been discovered that individuals with younger age are more likely to suffer from intermittent explosive disorder, which supports the pertinent research.[34,35]

Because most of the study participants lacked coping strategies, experienced several stressful events in their lives, and lacked familial support, the prevalence of adjustment disorder was noticeably higher among them. Additionally, several of the respondents made impulsive suicide attempts, and it has been shown that those who attempt suicide without planning are more likely to suffer from adjustment disorder.[36]

Limitations

As it is not community based study so frequency distribution could not be done.
Specific disease diagnostic scale was not used.
As the study only carried out Rajshahi division, generalibility could be hindered.

CONCLUSION

This study found family conflicts, relationship issues, financial difficulties are the major factors related to suicide attemps. Overall, the findings emphasize the urgent need for comprehensive and targeted suicide prevention initiatives in Bangladesh. By embedding evidence-based solutions into national policies and healthcare systems.

REFERENCES

1. Shahnaz A, Bagley C, Simkhada P, Kadri S. Suicidal behaviour in Bangladesh: A scoping literature review and a proposed public health prevention model. Open Journal of Social Sciences. 2017 Jul 3;5(7):254-82.
2. Mashreky SR, Rahman F, Rahman A. Suicide kills more than 10,000 people every year in Bangladesh. Archives of Suicide Research. 2013 Oct 1;17(4):387-96.
3. Shah MM, Ahmed S, Arafat SY. Demography and risk factors of suicide in Bangladesh: a six-month paper content analysis. Psychiatry journal. 2017;2017(1):3047025.
4. Arafat SY. Suicide in Bangladesh: a mini review. Suicide. 2014;3.
5. Reuben A, Manczak EM, Cabrera LY, Alegria M, Bucher ML, Freeman EC, Miller GW, Solomon GM, Perry MJ. The interplay of environmental exposures and mental health: setting an agenda. Environmental health perspectives. 2022 Feb 16;130(2):025001.

6. Ghanbari B, Malakouti SK, Nojomi M, Alavi K, Khaleghparast S. Suicide prevention and follow-up services: a narrative review. Global journal of health science. 2015 Sep 28;8(5):145.
7. Ali E, Maksud M, Zubyra SJ, Hossain MS, Debnath PR, Alam A, Chakrabarty PK. Suicide by hanging: a study of 334 cases. Bangladesh medical journal. 2014 Dec 30;43(2):90-3.
8. Qusar MS, Morshed NM, Azad MA, Kader MA, Shams SF, Ahmed MF, Haque MM, Uddin MA, Shahid SF. Psychiatric morbidity among suicide attempters who needed ICU intervention. Bangabandhu Sheikh Mujib Medical University Journal. 2009;2(2):73-7.
9. Knipe D, Williams AJ, Hannam-Swain S, Upton S, Brown K, Bandara P, Chang SS, Kapur N. Psychiatric morbidity and suicidal behaviour in low-and middle-income countries: a systematic review and meta-analysis. PLoS medicine. 2019 Oct 9;16(10):e1002905.
10. Hasan K, Rabby AS. Examining the alarming suicide trends in Bangladesh. Dhaka Tribune. 2018.
11. Bhagat S, Dar M, Ahmed I, Yasmeen I, Bashir S. Psychiatric co-morbidities of suicide attempters: a cross sectional observation in a tertiary care hospital of North India. Int J Sci Healthc Res. 2021;6:40-6.
12. Mamun MA, Sakib N, Gozal D, Bhuiyan AI, Hossain S, Bodrud-Doza M, Al Mamun F, Hosen I, Safiq MB, Abdullah AH, Sarker MA. The COVID-19 pandemic and serious psychological consequences in Bangladesh: a population-based nationwide study. Journal of affective disorders. 2021 Jan 15;279:462-72.
13. Rahman ME, Al Zubayer A, Bhuiyan MR, Jobe MC, Khan MK. Suicidal behaviors and suicide risk among Bangladeshi people during the COVID-19 pandemic: an online cross-sectional survey. Heliyon. 2021 Feb 1;7(2).
14. Feroz AH, Islam SN, Reza S, Rahman AM, Sen J, Mowla M, Rahman MR. A community survey on the prevalence of suicidal attempts and deaths in a selected rural area of Bangladesh. Journal of Medicine. 2012;13(1):3-9.
15. Talukder N, Karim KA, Chowdhury T, Habib A, Chowdhury AM, Perveen K. Study of autopsy based suicidal hanging. Bangladesh journal of physiology and pharmacology. 2014;30(2):14-7.
16. Barr B, Taylor-Robinson D, Scott-Samuel A, McKee M, Stuckler D. Suicides associated with the 2008-10 economic recession in England: time trend analysis. Bmj. 2012 Aug 14;345:e5142.
17. Appleby L, Shaw J, Amos T. National confidential inquiry into suicide and homicide by people with mental illness. The British Journal of Psychiatry. 1997 Feb;170(2):101-2.
18. Mamun MA, Al-Mamun F, Islam J, Muhit M. Prevalence and associated factors of suicidal behaviors among Bangladeshi rural community people: Findings from the 'BD ComMen Study'. PloS one. 2022 Dec 20;17(12):e0279271.
19. Abdullah M, Khalily MT, Ruocco AC, Hallahan B. Impulsivity, suicidal thoughts, psychological distress, and religiosity in adolescents and young adults. Frontiers in psychiatry. 2023 Apr 5;14:1137651.
20. Arafat SY, Hussain F, Hossain MF, Islam MA, Menon V. Literacy and stigma of suicide in Bangladesh: Scales validation and status assessment among university students. Brain and behavior. 2022 Jan;12(1):e2432.
21. Urme SA, Islam MS, Begum H, Chowdhury NR. Risk factors of suicide among public university students of Bangladesh: A qualitative exploration. Heliyon. 2022 Jun 1;8(6).
22. Wadood A, Karim R, Hussain AA, Rana M, Hossain G. Risk factors of suicidality among married adults: A cross-sectional survey in Rajshahi City, Bangladesh. Plos one. 2021 May 13;16(5):e0251717.
23. Arsenault-Lapierre G, Kim C, Turecki G. Psychiatric diagnoses in 3275 suicides: a meta-analysis. BMC psychiatry. 2004 Nov 4;4(1):37.
24. Carroll R, Metcalfe C, Gunnell D. Hospital presenting self-harm and risk of fatal and non-fatal repetition: systematic review and meta-analysis. PloS one. 2014 Feb 28;9(2):e89944.
25. Foster GD, Wadden TA, Vogt RA, Brewer G. What is a reasonable weight loss? Patients' expectations and evaluations of obesity treatment outcomes. Journal of consulting and clinical psychology. 1997 Feb;65(1):79.
26. Harwood D, Hawton K, Hope T, Jacoby R. Psychiatric disorder and personality factors associated with suicide in older people: a descriptive and case-control study. International journal of geriatric psychiatry. 2001 Feb;16(2):155-65.
27. Tasnim R, Islam MS, Sujan MS, Sikder MT, Potenza MN. Suicidal ideation among Bangladeshi university students early during the COVID-19 pandemic: Prevalence estimates and correlates. Children and youth services review. 2020 Dec 1;119:105703.
28. Yaseen YA. Adjustment disorder: Prevalence, sociodemographic risk factors, and its subtypes in outpatient psychiatric clinic. Asian journal of psychiatry. 2017 Aug 1;28:82-5.
29. Feroz AH, Islam SN, Reza S, Rahman AM, Sen J, Mowla M, Rahman MR. A community survey on the prevalence of suicidal attempts and deaths in a selected rural area of Bangladesh. Journal of Medicine. 2012;13(1):3-9.
30. Islam MR, Adnan R. Socio-demographic factors and their correlation with the severity of major depressive disorder: a population based study. World Journal of Neuroscience. 2017;7(02):193.
31. Akhtar-Danesh N, Landeen J. Relation between depression and sociodemographic factors. International journal of mental health systems. 2007 Sep 4;1(1):4.
32. Eaton NR, Greene AL. Personality disorders: community prevalence and socio-demographic

correlates. Current opinion in psychology. 2018 Jun 1;21:28-32.
33. Whisman MA, Tolejko N, Chatav Y. Social consequences of personality disorders: Probability and timing of marriage and probability of marital disruption. Journal of personality disorders. 2007 Dec;21(6):690-5.
34. Coccaro EF, Posternak MA, Zimmerman M. Prevalence and features of intermittent explosive disorder in a clinical setting. Journal of Clinical Psychiatry. 2005 Oct 1;66(10):1221-7.
35. McLaughlin KA, Green JG, Hwang I, Sampson NA, Zaslavsky AM, Kessler RC. Intermittent explosive disorder in the national comorbidity survey replication adolescent supplement. Archives of general psychiatry. 2012 Nov 1;69(11):1131-9.
36. Polyakova I, Knobler HY, Ambrumova A, Lerner V. Characteristics of suicidal attempts in major depression versus adjustment reactions. Journal of affective disorders. 1998 Jan 1;47(1-3):159-67.

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