

A CORRELATIONAL STUDY OF HOPELESSNESS AND SUICIDAL INTENT IN PATIENTS PRESENTING TO ACCIDENT AND EMERGENCY DEPARTMENT OF A TERTIARY CARE HOSPITAL AFTER ATTEMPTED SUICIDE

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ABSTRACT

Objective: To find the level of hopelessness and suicidal intent in patients presenting to Accident and Emergency department of a tertiary care hospital after attempting suicide and determining a correlation between the two.

Material and Methods: A prospective study from 1st Jan 2020 to 30th June 2020 was carried out at Khyber Teaching hospital of Peshawar, Pakistan. Consenting patients who were brought to the A&E after attempted suicide during the study duration were included in the study and were evaluated by using Beck Hopelessness Scale, and Beck Suicidal Intent Scale along with a semi structured proforma for interview. Data were analyzed using SPSS, descriptive statistics and correlation coefficient were used.

Results: A total of 102 patients were assessed. Majority were females ($n=63$, 61.8%), and were less than 45 years ($n=88$, 86.2%). Twenty-six (25.4%) had a family history of suicide and 31 (30.3%) have attempted suicide in the past. The most common mode of committing suicide was through the use of organophosphates ($n=72$, 70.6%). A total of 40 (39.2%) were already diagnosed cases of psychiatric illness. Moderate hopelessness was reported in 46 (45.1%) cases with a mean hopelessness score of 9.64 ± 4.3 . Majority ($n=71$, 69.6%) had medium suicidal intent with a mean score of 25.14 ± 4.4 , which when correlated with hopelessness score, significant positive correlation ($\rho: 0.540$, $P < 0.000$) was found.

Conclusion: There is a predominance of female gender in those committing suicide. A sizable amount of the sample showed moderate hopelessness while medium suicidal intent was found in the majority of the sample.

Key words: Deliberate self-harm, suicide attempt, hopelessness, tertiary care hospital.

This article may be cited as: Khan I, Ayub S. A correlational study of hopelessness and suicidal intent in patients presenting to accident and emergency department of a tertiary care hospital after attempting Suicide. *J Med Sci* 2020 July;28(3):210-213

INTRODUCTION

Suicidal behavior and suicidality can be conceptualized as a continuum ranging from suicidal ideation to suicide attempts and completed suicide. The prevalence of suicide in developing countries has been estimated to be 0.4%¹. Attempted suicide is an act of intentional self-injury, irrespective of apparent purposes of the act and are considered to be major public health concerns globally^{2,3}. It is well acknowledged that a previous suicide attempt is the single most important risk factor for suicide in the general population⁴. Suicidal attempts account for a significant number of Accident & Emergency (A&E) Department

visits and represent a major public and mental health problem in Pakistan⁵.

The prevalence, characteristics, and methods of suicidal behavior vary widely between different communities, in different demographic groups and time⁶. According to WHO World Mental Health Surveys 2008, the Global annual prevalence of self-reported suicide attempt is approximately 4 per 1000 adults. In 2012, the estimated global suicide rate was 15 per 100,000 adults (18 years and above). WHO report on suicide prevention in 2014 revealed suicide as the second leading cause of death in 15-29 years age group. Most of the low and middle-income countries including Pakistan, India and Bangladesh lack a comprehensive death registration system.⁷ Apart from psychiatric disorders, bereavement, interpersonal problems and socioeconomic factors have been reported to be important predictors of attempted suicide⁸. One in three persons with a previous psychiatric diagnosis experienced suicide attempt, deliberate self-harm or psychiatric illness within the first year of bereavement. The risk of

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Date received: 07-08-2020

Date revised: 01-09-2020

Date accepted: 11-09-2020

suicide, deliberate self-harm and psychiatric illness is high after the loss of a close relative, especially in susceptible and generally highest after loss of a child, in younger persons, and after sudden loss by suicide, homicide or accident.⁹ A recent study of people who attempted suicide in India showed that 86% of the attempts were isolated impulsive acts following triggers, the most common of which was interpersonal disputes (71%)¹⁰. In this study, 67% of patients had a mental health condition, the most common being alcohol use disorder, followed by depression, and personality disorders.

In the view of our local situation and under the preview of the global burden, this study, as a possible tip of an iceberg at the district level, aimed to assess the socio-demographic factors, hopelessness and suicidal intent of patients referred to A&E of a tertiary care hospital of Peshawar.

MATERIAL AND METHODS

A prospective study was conducted at the Accident & Emergency Department of Khyber Teaching Hospital, Peshawar. The study was approved by the ethical committee of Khyber teaching Hospital. The patients who attempted suicide, presented to A&E, of both gender and of any age were included in the study. Informed consent was obtained from the individuals.

This study was conducted from 1st Jan 2020 to 30th June 2020 (six months). Among 113 patients who presented to A&E to have attempted suicide, a total of 102 consenting patients were assessed. Those who refused to give informed consent or hemodynamically unstable were excluded from the study. The evaluation was done by Beck Hopelessness Scale, and Beck Suicidal Intent Scale along with a self-structured proforma for interview. The data were analyzed by using SPSS.

Analysis of the basic variables were carried out using descriptive statistics for percentages and frequencies. Spearman's test was used to assess the correlation between Beck's Hopelessness Scale (BHS) and Beck's Suicidal Intent Scale (BSIS).

Beck's Hopelessness Scale (BHS) is a 20-item self-report instrument that assesses the positive and negative attitudes about the future during the past week as perceived by the patients. The total score ranges from 0 to 20 (0-3: Minimal, 4-8: Mild, 9-14: Moderate, and 15-20: Severe). The internal reliability of this scale ranges from 0.87 to 0.93¹¹. One-week test-retest reliability is 0.69. The concurrent validity is well established across a wide variety of samples¹².

Beck's Suicidal Intent Scale is an interviewer administered measure of seriousness of the intent to commit suicide among suicide attempters¹³. It contains 20 items

to be scored on a 3-point Likert scale. Score is calculated from first 15 items, ranging from 0 to 30 (15-19: Low intent, 20-28: Medium intent, and 29 or more: High intent). The internal reliability of the scale is 0.95 while inter-rater reliability ranges from 0.81 to 0.95.

RESULTS

Among the 102 individuals, majority were females (n=63, 61.7%) and were married (n=67, 65.6%). Majority of the participants were in age group of 21 to 45 years (n=55, 53.9%). A total of 40 (39.2%) were already having a diagnosed psychiatric issue with 15 of them having depressive disorder. All the details are given in Table 1.

Twenty-six (25.4%) had a family history of suicide and suicidal attempts in first and second-degree relatives. Almost one third (n=31, 30.3%) had a past history of suicidal attempt. A total of 56 (54.9%) attempted suicide after an inter personal conflict with 32 of them had a conflict with the in-laws, 13 with the spouse, 7 with parents and 4 with others.

Figure 1 shows a pie chart describing the methods of committing suicide, according to which 72 (70.6%) attempted suicide using organophosphate compounds, followed by 11 (10.8%) using prescription tablets, 7 (6.9%) using firearms, 5 (4.9%) each using hanging and cutting their wrist/forearm and 2 (1.9%) while jumping from a height.

A total of 35 (34.3%) persons who attempted suicide showed mild hopelessness while 46 (45.1%) showed moderate and 21 (20.6%) showed severe degree of hopelessness. The mean score for the hopelessness was 9.64 ± 4.3 . A total of 5 (4.9%) persons who attempted suicide showed low suicidal intent while 71 (69.6%) showed medium and 26 (25.5%) showed high suicidal intent. The mean score for the suicidal intent was 25.14 ± 4.4 . Results of correlation showed highly significant positive and moderate correlation between Hopelessness and suicidal intent ($\rho = 0.540, P < 0.000$).

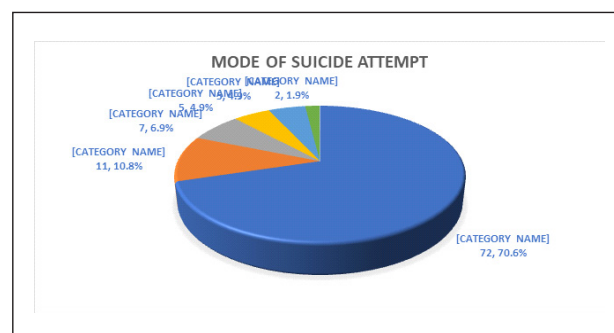


Fig 1: Methods of committing suicide (n=102)

Table 1: Basic details of the study

S. No	Variables		Frequency (%)
1	Gender	Male	39 (38.2%)
		Female	63 (61.8%)
2	Age Group	10 to 20 years	33 (32.4%)
		21 to 45 years	55 (53.9%)
		46 to 65 years	8 (7.8%)
		Above 65 years	6 (5.9%)
3	Marital Status	Married	67 (65.7%)
		Single/engaged	15 (14.7%)
		Divorced/separated	19 (18.6%)
		Widow/widower	1 (1.0%)
4	Already diagnosed psychiatric comorbidity*	Depressive disorder	15 (14.8%)
		Substance Use	10 (9.8%)
		Personality disorder	11 (10.7%)
		Psychosis (including Schizophrenia)	3 (2.9%)
		Acute stress reaction	1 (1.0%)
		No existing psychiatric diagnosis	62 (60.8%)

Table 2: Correlation between hopelessness and suicidal intent

S. No	Measures	I (p-value)	II (p-value)
I	Hopelessness	-	-
II	Suicidal Intent	0.540* (.000)	-

DISCUSSION

In our study, majority of the suicide attempters were in their middle ages and there was more female predominance which is consistent with other studies^{6,14,15}. In this study, the majority were married, which is similar to the findings in another study¹⁶. There were fewer patients with severe hopelessness in this study than those with mild and moderate hopelessness. Hopelessness prevents a person to think about future positively resulting in expecting the worse outcome and also predicts the ultimate suicide. Hopelessness and suicidal intent have a positive correlation. Hopelessness rather than depression is a determinant of suicidal intent^{17, 18}. There were a fewer patients with high suicidal intent than compared moderate suicidal intent. High suicidal intent has been associated with high lethality¹⁷. In this study, Interpersonal conflicts, criticism, scolding, and quarrels have represented 55% of the subjects as a cause for their attempt. The same findings of more of Interpersonal conflicts than psychiatric morbidity have been reported in other many studies^{19,20}. Thirty one percent of the subjects had past history of suicide attempt which is similar to the finding in few studies²¹. 20.5% of the subjects had a family history of suicide in their 1st and 2nd relatives which is similar to the findings by Salian et al²². As widely known in this study also, or-

ganophosphorus poisoning was the predominant mode of attempt represented 71%, in the form of insecticides, rodenticides and tablet poisoning. The same trend was found in other local studies^{14, 23, 24}. Psychiatric comorbidities including substance use were found in around 39% of the individuals. This trend of psychiatric morbidity around 20- 30% was also found in other studies²². Contrary to the above findings around 50-60%, morbidity was reported in other studies²⁴. The patients perceiving suicide attempt and reasons behind it as major problem had significantly higher mean suicidal intent score. This indicates that worse the perception of the situation at hand disastrous can be the consequences.

LIMITATIONS

This study is confounded by its limitations. The sample size is small and the study population also confined to A&E of one tertiary care hospital. Although hospital-based data on suicide attempts may not give the true picture of the community, but this may serve as the tip of the iceberg.

CONCLUSION

There is a predominance of female gender in those committing suicide. A sizable amount of the sample showed moderate hopelessness while medium suicidal intent was found in the majority of the sample. There is a highly significant positive and moderate correlation between Hopelessness and suicidal intent. The presence of already existing psychiatric diagnosis suggests the need of effective treatment of psychiatric comorbidities through social, educational and community level program that may have long term impact on preventing suicidal attempts.

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CONFLICT OF INTEREST: Authors declare no conflict of interest

GRANT SUPPORT AND FINANCIAL DISCLOSURE: NIL

AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

Khan I: Conceptualization, drafting, critical review

Ayub S: Data compilation, manuscript writing

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.