

Correlates of Suicidal Intent in Attempted Suicide

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Abstract

Objective: The purpose of the present study was to assess the correlates of suicidal intent of subjects in a South Indian population following their first suicide attempt.

Patients and Methods: The sample subjects were selected from those who were admitted to emergency medical services of a tertiary care hospital. The study was conducted for a period of 1 year. The study protocol involved the use of standardised criteria and instruments to conduct the interview.

Results: Gender, marital status, and employment status had no significant impact on suicidal intent. Age and the presence of a mental disorder were found to be linked to suicidal intent. Lethality and suicidal intent were also closely related. Hopelessness and depression emerged as the key determinants of suicidal intent.

Conclusion: The study confirms the influence of hopelessness and depression on suicide intent in a population culturally different from those in the West.

Key words: Attempted suicide, Follow-up studies, India, Suicide

Introduction

Suicide intent refers to the intensity of wish for death at the time of suicide attempt.¹ Suicide intent in an act of self-injury and is likely to be associated with a high risk of future suicide attempts.² In the past, suicide intent has been linked to various demographic and clinical variables. In one study, old age, male gender, living alone, employing methods other than drug overdose, and previous history of alcohol use were found to be significantly associated with suicide intent.³ Another study completed in a polyethnic population in the United Arab Emirates shows that increasing age and psychosis were associated with high suicide intent.⁴ There have been attempts to define the relationship between suicide intent and medical lethality.¹ Although they are linked, the relationship is not clearly defined.⁵ Studies have found low to almost no correlation between the lethality of the attempt and the seriousness of suicide intent.⁶⁻⁸ Another

development in this area is the focus on hopelessness and depression as correlates of suicide intent. Studies have shown that both depression and hopelessness correlate significantly with suicide intent.⁹⁻¹²

In India, this area of research has largely remained unexplored. This study closely examines the suicide intent in a large sample of Indian patients who attended emergency medical services following their first suicide attempt. The study is part of an ongoing project that examines the outcome in a group of first attempters, at the end of 2 years.

Patients and Methods

Subjects

Survivors following their first suicide attempt, who were receiving treatment from various medical wards of Jawaharlal Institute of Postgraduate Medical Education and Research Hospital, Pondicherry, were recruited for the study. The subjects were consecutive referrals from August 2001 to July 2002 and were 18 years of age and older. Attempted suicide was defined as an act with a non-fatal outcome in which an individual deliberately initiates a non-habitual behaviour that, without external intervention, will inflict self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognised dosage, aimed at realising changes that the person desires via the actual or expected physical consequences.¹³

Methods

Patients were assessed for their willingness to participate in the study following a formal referral to the Department of

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Psychiatry. Of the total, 25 patients refused to participate in the assessment. Informed consent was obtained from the patients who agreed to participate in the study. The patients were administered the Mini-Mental State Examination,¹⁴ and those with a score of 20 or above were deemed eligible to participate in the study. Subjects were interviewed as soon as possible after the event. The interval between the admission to hospital and the first interview ranged between 2 and 5 days. Interviews were conducted in 4 to 6 sessions of 45 minutes' duration. The subjects were asked to respond keeping in mind their feelings or thoughts at the time of the act.

Measurements

A semi-structured proforma specially designed for the study was used to collect information on various demographic and psychosocial variables, information on suicide attempts, and circumstances related to the attempts. The following scales were used. The Suicide Intent Scale (SIS) is divided into 3 sections: (1) objective circumstances related to suicide attempt (8 items), (2) self-report (7 items), and (3) other aspects (5 items). Each item scores 0-2.¹⁵ The Hopelessness Scale is a self-reporting scale consisting of 20 statements of thoughts or feelings about the future.¹⁶ Subjects rate each item as true or false; 11 items are keyed true and 9 items are keyed false. The Montgomery Asberg Depression Rating Scale is a widely used scale that includes all the most important depressive symptoms. There are 10 items in this scale and the maximum score obtainable is 60.¹⁷ The Risk Rescue Rating Scale is used for assessing the lethality of suicide attempts.¹⁸ Underlying the principle of this scale is the lethality of implementation, defined as the probability of inflicting irreversible damage, and may be expressed as a ratio of factors influencing risk and rescue. The scale consists of 5 risk factors and 5 rescue factors; each factor scores 1-3. Risk scores and rescue scores are calculated and risk rescue scores are computed. The Mini International Neuro-psychiatric Interview Plus is a structured diagnostic interview developed jointly by European and American psychiatrists for Diagnostic and Statistical Manual-IV and International Classification of Disease (ICD)-10 categories.¹⁹ It includes modules for 23 disorders and features questions on rule-outs, disorder subtyping, and chronology. It also features a number of algorithms to handle hierarchical rule-outs in the event that the patient had more than one disorder at a time.

Statistical Analysis

Independent sample *t* test and bivariate correlation were performed using Statistical Package for the Social Sciences software.

Results

The study included 153 male (44.9%) and 188 female (55.1%) patients. The mean (\pm SD) age of the patients was 26.1 ± 9.3 years. The mean age of the male and female patients was 27.4 ± 18.1 years and 25.1 ± 9.5 years, respectively. The majority belonged to the age group 18-25 years. The mean

number of years spent in school was 7.4 (5.1%); 85 patients (29.9%) had no formal education, 22 (6.5%) had received primary education, and 159 (46.6%) were educated up to high school level. A total of 205 patients (60.1%) were employed at the time of recruitment for the study. The occupational profile of the sample was: skilled workers, 56.9%; unskilled workers, 9.1%; students, 7.3%; homemakers, 23.2%; and professionals, 3.5%. In all, 82.7% had a monthly income in the range: Rs 500-999. Of the total, 184 patients (54%) were married, 143 (41.9%) were single, 3 (0.9%) were widowed, and 11 (3.2%) were separated. The majority (85%) resided in rural areas.

Self-poisoning was the most common form of suicide attempt (90.6%). Responders and non-responders did not differ significantly in terms of age, gender, length of hospital stay, and employment. The mean total SIS score for the entire sample was 10 ± 3.2 . Significant correlation was achieved between total SIS score and the self-report (0.78) and circumstances scores (0.71). The correlation was modest between the self-report and circumstances scores (0.61). In this study, for the purpose of analysis, we decided to opt for total SIS scores. The suicide intent scores did not vary with age, gender, employment status, marital status, and method of attempt. ICD-10 psychiatric disorders were diagnosed in 47.2%. The most common diagnosis was depressive episode (31%). Alcohol dependence syndrome was detected in 8.7% of the subjects. A significant proportion of patients (52.8%) did not suffer from any identifiable ICD-10 psychiatric disorder. Irrespective of the diagnosis, subjects with mental morbidity showed a significantly higher

Table 1. Demographic and clinical correlates of suicidal intent scores.

Variable	Suicide intent score (mean \pm SD)	Significance
Gender		
Male	9.9 \pm 3.2	NS
Female	10.1 \pm 3.2	
Marital status		
Single	9.9 \pm 3.4	NS
Married	10.1 \pm 3.1	
Employment status		
Employed	10.1 \pm 3.2	NS
Unemployed	9.8 \pm 3.2	
Family history of suicide		
Present	10.0 \pm 3.4	NS
Absent	10.1 \pm 3.2	
Method of self-injury		
Self-poisoning	10.0 \pm 3.2	NS
Others	10.7 \pm 3.5	
Physical illness		
Present	11.0 \pm 2.8	NS
Absent	10.0 \pm 3.3	
Psychiatric morbidity		
Present	12.1 \pm 4.8	p < 0.05
Absent	7.8 \pm 2.9	

Abbreviation: NS = not significant.

Table 2. Pearson's correlation between suicide intent and age, hopelessness, depression, and lethality of implementation.

Variable	Pearson's correlation (r)	Significance
Age	0.12	p < 0.05
Depression	0.25	p < 0.01
Hopelessness	0.21	p < 0.01
Risk rescue score	0.13	p < 0.05

intent than those without morbidity (Table 1). There was a clinically significant correlation between suicidal intent and age, hopelessness, depression, and lethality of the attempt (Table 2).

Discussion

Studies on suicidal intent always included a mixed sample of parasuicide cases both with and without previous suicidal behaviours. Our study was limited to first attempters because the study was designed to follow acts of repetition over a 2-year period.

Several findings have emerged from this study. No correlation was established between gender and suicide intent. Pallis and Sainsbury found that the scores were significantly higher in males than in females;²⁰ however, according to the study by Lester et al, no such difference was observed between gender and suicide.²¹ In another study, in adolescents, females showed a higher intent than males.⁴ The link between age and suicide intent has not been confirmed uniformly across studies.^{2,10,11,21-23} Our study showed a significant relationship between age and suicidal intent. A majority of the subjects included in the study hail from rural areas and are engaged in farming. Over the years, due to failure of the monsoon rains, the income has dwindled. Alternative jobs are difficult to find. The families' desires to raise their children, educate their sons, and get their daughters married remain unfulfilled. These factors may underlie the high suicide intent associated with increasing age.

The suicide intent scores in the present study varied neither with employment nor marital status. One other study has reported similar findings.³ An assured income rather than the employment status may be an important issue in determining the suicide intent. The suicide intent scores are shown to be higher in subjects who have employed methods other than poisoning and in those with associated physical illness.² Analysis of our data did not find any significant association between the method employed and suicidal intent. This finding is to be viewed with caution as only 9.4% of the subjects had employed methods other than self-poisoning. The validity of the suicidal intent scale as a measure of the seriousness of the act remains controversial.^{4,7} Lethality and suicidal intent have been shown to be closely associated.¹ Beck et al further clarified that the correlation improved only when the attempter had sufficient knowledge to adequately assess the probable outcome of his attempt.²⁴ We

have demonstrated a significant correlation between the lethality of implementation and suicide intent. Lethality can still serve as a useful guide to assess the degree of suicidal intent.

Mental morbidity, especially psychosis, has been demonstrated to have a significant association with suicidal intent.⁴ In this study, mental morbidity was assessed, and irrespective of the diagnosis, the group with psychiatric morbidity showed a significantly higher suicidal intent. Depression is a common finding in parasuicide cases.^{8,25} In our study, hopelessness and depression as measured by standard scales appeared to be significant correlates of suicidal intent. A series of studies has shown that there is a higher correlation between suicide intent and hopelessness than with depression.^{9,10} In our study, the relationship between depression and suicidal intent remained strong even after controlling for hopelessness. It may be speculated that hopelessness and depression significantly influence each other and escalate the levels of suicidal intent in this population.

The study included patients, the majority of whom, reported low to moderate intention to die. Several findings are consistent with what one would expect from the high suicidal intent group. However, the findings could not be generalised, as the referred population is from a tertiary care service. One of the issues of concern in this study had been the timing of assessment. We followed the procedure adopted by Dyer and Kreitman.¹⁰ The subjects were asked to respond keeping in mind their feelings at the time of the act. However, the accuracy of the retrospective recollection is unclear. Adolescents were not represented because the study confined itself to patients above 18 years. A majority belonged to the young age group. Apart from age, none of the other sociodemographic variables were related to suicide intent. Presence of a mental disorder is found to be associated with suicidal intent. Proper management of a coexisting mental disorder may help in reducing future risk of suicide attempts. Pharmacotherapy and cognitive therapy may have definite roles in reducing further suicidal risk. Follow-up studies are required to confirm the usefulness of such interventions.

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