

Prevalence of Suicidal Ideation among University Students

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Abstract

Background: *There is a rapidly growing public awareness of increasing trend of suicides and attempted suicide in college students.*

Aim: *To determine the prevalence of suicidal ideation among university students, to assess the impact of education and gender on suicidal ideation and to examine the inter-correlation between various dimension of suicidal ideation*

Methods: *The study is based on two hundred college students selected by two groups (gender-male and female) and level of education (Undergraduate and Postgraduate) using stratified random sampling to collect data from various colleges and Post-Graduate Department of Ranchi University. After obtaining informed consent, socio-demographic details were recorded. Suicidal ideation was determined by administering the Adult Suicidal Ideation Questionnaire on the sample.*

Results: *The prevalence rate of severe and moderate suicidal ideation is significantly more in undergraduate and female students as compared to post graduate and male students.*

Conclusions: *It is recommended that awareness cum educational program to the university students should be given focusing on girls and undergraduate students.*

Key Words: *Suicidal ideation, undergraduate students, postgraduate students.*

Introduction

“Suicide” is defined as “a death from injury, poisoning, or suffocation that ... was self-inflicted and that the decedent intended to kill himself or herself.” A “suicidal attempt” is defined as “a potentially self-injurious behavior with a nonfatal outcome that the person intended to kill himself/herself”. [1] Suicidal ideation is a common medical term for thoughts about suicide; however the term suicidal ideation is often used more generally refer to having the intent to commit suicide, including planning conduct and outcome of suicidal behaviour, particularly as the last relates to the thoughts about the response of others.[2-3]

Suicide is one of the main causes of death among the youth. During the year 2013 among U.S. students in 9-12 grades, 17.0% (22.4% females and 11.6% males) seriously considered attempting suicide, 13.6% (16.9% females and 10.3% males) made a plan for committing suicide, and 8.0% (10.6% females and 5.4% males) attempted suicide one or more times.[4] National Crime Bureau (2015) also reported that the second highest number of suicides (32.8%) in India are by those between the age of 18-30 years. However, 41% of the suicides occurred among youth aged 14 to 30 years.[5] Suicidal ideation rate among adolescents was found to be 21.7% in Delhi. [6]. Urgency of in-depth understanding of suicide in India has been emphasized [7] While stressful life events are an important reason for suicidal attempts,[8-9] other predictor variables, i.e., personality, presence of meaning in life, reasons for living, contribute significantly to suicidal ideation. [10] A population-based prospective cohort study included 2399 secondary school students evaluated at 13–15years of age and a follow-up study 4years later at 17–19years of age. At follow up suicidal ideation was reported by 17% (14.2% boys and 19.5% girls). Suicidal ideations were strongly associated with anxiety, depression, conduct problems, overweight and muscular and tension reported when participants were 13–15years old. [11] Prevalence of high suicidal ideation among female college students of Calcutta was 12.5%. Events like public embarrassment

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due to some freaky incident, harassment, rape and being jilted in love were relatively more important while events like death of a loved one and acute financial crisis were found relatively less significant reasons for suicidal ideation for this sample.[12] Suicidal ideation in school going adolescents was positively correlated with psychological discomfort, anxiety, and depression in another Indian study.[13]

Suicidal ideation in college students has been extensively studied in western countries but comparatively less work has been done in India. In view of the above the present work was undertaken to determine the prevalence of suicidal ideation among university students, to assess the impact of education and gender on suicidal ideation and to examine the inter-correlation between various dimensions of suicidal ideation

Materials and Method

Study design

It was a college based cross-sectional analytical study using simple screening instruments for detecting suicidal ideation in undergraduate and Post-graduate college students of both genders. The study protocol was approved by the institutional ethical committee.

Sample

Two hundred university students were selected from stratified random sampling from various colleges and Post-Graduate Department of Ranchi University. The factors of stratification were: Level of education-2 (Under graduate and Post-graduate), Gender-2 (Male and female). The age range of students was 17- 25 years. All the students gave written informed consent.

Inclusion criteria

1. Undergraduate and Post-graduate college students of both genders
2. Overtly healthy
3. Understanding English and Hindi languages

Exclusion criteria

1. Any medical or psychiatric condition requiring medication at present
2. Any past history of diagnosed mental illness

Tools

Socio-demographic data sheet: It is a semi structured performa especially designed for this study. It contains information about socio-demographic details, which are age, sex education, race, marital status, religion, socio-economic status and domicile.

Adult Suicidal Ideation Questionnaire (ASIQ): The ASIQ consists of 25 items. It is a 7-point scale, which assesses the frequency of occurrence within the past month. The scale ranges from '0' (I never had this thought) to '6' (Almost Everyday). The data is recoded in '0' indicated normal (5 & 6) range, '1' indicated moderate level (2, 3 & 4) and '2' indicated severe level (0 & 1). The reliability of the ASIQ was investigated using Cronbach's

Coefficient Alpha (0.95) an index of internal consistency reliability as well as test-retest reliability. The test-retest reliability of the ASIQ in college student was 0.86. Significant correlations ($r = .38$ to $.60$) were found with measures of depression, hopelessness, anxiety, and self-esteem.[14-15]

Procedure

After obtaining permission from the principals of the colleges for conducting the study, the students were informed about the aim and objectives of the study and their informed consents was obtained. Those who agreed for the study as well as fulfilled the inclusion and exclusion criteria were included in the study. The socio-demographic details were collected in self-prepared semi-structured performa. After explaining the instructions, the students were asked to fill the response sheets of ASIQ. All data were collected anonymously, and participants were assured of the confidentiality of their responses and the voluntary nature of their participation.

Analysis of Data

The data obtained was analyzed using the Statistical Package for Social Sciences version 16.0 (SPSS -16.0) with parametric and nonparametric tests being used as applicable.

Results

Prevalence of suicidal ideation among university students

Prevalence of suicidal ideation among university students were computed by the percentage of mild (0), moderate (1) and severe (2) scores on the various dimension as well as total suicidal ideation score. Data is presented in table 1 and figures 1, 2, 3. The results are presented separately for severe and moderate levels of suicidal ideation.

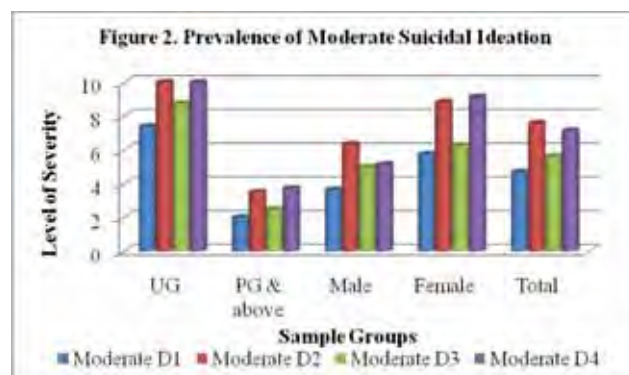
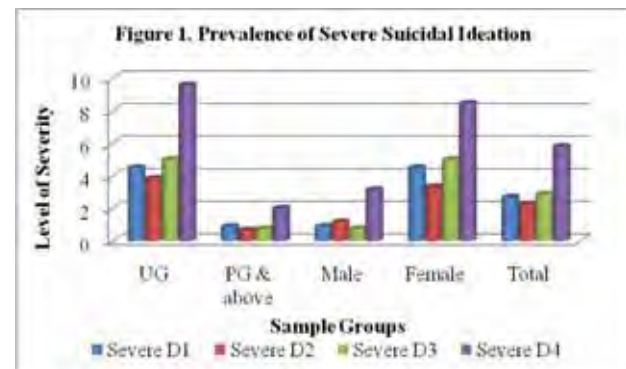


Table 1: Prevalence of various severity and dimensions of Suicidal Ideation in College Students

Severity of Suicidal Ideation	Dimensions	UG	PG	Male	Female	Total
Mild	Panning to kill oneself	88.13	97.13	95.50	91.00	92.63
	Using killing oneself as a means to affiliate oneself with others	84.50	95.83	92.50	87.83	90.17
	Nerve to kill oneself	86.25	96.75	94.25	88.75	91.5
	Pessimistic attitude towards own life	79.86	94.29	91.71	82.43	87.07
	Total	84.68	96.00	93.49	87.50	90.34
Moderate	Panning to kill oneself	7.38	2.00	3.63	5.75	4.69
	Using killing oneself as a means to affiliate oneself with others	11.67	3.50	6.33	8.83	7.58
	Nerve to kill oneself	8.75	2.5	5.00	6.25	5.62
	Pessimistic attitude towards own life	10.57	3.71	5.14	9.14	7.14
	Total	9.59	2.93	5.03	7.49	6.26
Severe	Panning to kill oneself	4.50	0.88	0.88	4.50	2.69
	Using killing oneself as a means to affiliate oneself with others	3.83	0.67	1.17	3.33	2.25
	Nerve to kill oneself	5	0.75	0.75	5.00	2.87
	Pessimistic attitude towards own life	9.57	2.00	3.14	8.43	5.79
	Total	5.73	1.07	1.48	5.32	3.40

All figures in percentages

Table 2: ANOVA showing the impact of education and gender on suicidal ideation

Sources of Variation	Sum of Squares	Mean Squares	F
A. Gender	804.00	804.00	24.55**
B. Education	330.25	330.25	10.08**
A X B	80.64	80.64	2.46NS

Table 3: Mean scores, S.D. and t- values of various sample groups

	Male	Female	UG	PG
Mean	2.01	4.58	5.30	1.20
SD	4.35	7.39	7.73	3.02
t- value	2.99**	4.82**		

** Significant at 0.01 levels

Table 4: Correlations between various dimensions of suicidal ideation

Dimensions	Panning to kill oneself	Using killing oneself as a means to affiliate oneself with others	Nerve to kill oneself	Pessimistic attitude towards own life	Total
Panning to kill oneself	x	0.68	0.66	0.70	0.90
Using killing oneself as a means to affiliate oneself with others	x	x	0.68	0.60	0.82
Nerve to kill oneself	x	x	x	0.69	0.84
Pessimistic attitude towards own life	x	x	x	x	0.90
Total	x	x	x	x	x

All values are significant at 0.01 levels

Discussion

Prevalence of severe suicidal ideation

Suicidal ideation is severe in under graduate (5.73 %) than post graduate students and research scholars (1.07). Moreover, the prevalence is more in females (5.32%) than male (1.48%) students. The dimension wise prevalence rate of suicidal ideation reveals that in dimension one (Panning to kill oneself), the suicidal ideation is more in under graduates (4.50%) than post graduates students and research scholars (0.88%). Moreover, the prevalence is more in females (4.50%) than male (0.88%) students. In dimension two (Using killing oneself as a means to affiliate oneself with others), the suicidal ideation is more (3.83%) in under graduates than post graduates and research scholars (0.67%). Moreover, the prevalence is more in females (3.33%) than male (1.17%) students. In dimension three (Nerve to kill oneself), the suicidal ideation is more (5%) in under graduates than post graduates and research scholars (0.75%). Moreover, the prevalence is more in females (5%) than male (0.75%) students. In dimension four (Pessimistic attitude towards own life), the suicidal ideation is more (9.57%) in under graduates than post graduates and research scholars (2%). Moreover, the prevalence is more in females (8.43%) than male (3.14%) students.

Prevalence of moderate suicidal ideation

Suicidal ideation is moderate in under graduate (9.59%) than post graduate and research scholars (2.93%). Moreover, the prevalence is more in females (7.49%) than male (5.03%) students. The dimension wise prevalence of suicidal ideation is: In dimension one (Panning to kill oneself), the suicidal ideation is more (7.38%) in under graduates than post graduates and research scholars (2%). Moreover, the prevalence is more in females (5.75%) than male (3.63%) students. In dimension two (Using killing oneself as a means to affiliate oneself with others), the suicidal ideation is more (11.67%) in under graduates than post graduates and research scholars (3.50%). Moreover, the prevalence is more in females (8.83%) than male (6.33%) students. In dimension three (Nerve to kill oneself), the suicidal ideation is more (8.75%) in under graduates than post graduates and research scholars (2.50%). Moreover, the prevalence is more in females (6.25%) than male (5%) students. In dimension four (Pessimistic attitude towards own life), the suicidal ideation is more (10.57%) in under graduates than post graduates and research scholars (3.71%). Moreover, the prevalence is more in females (9.14%) than male (5.14%) students.

Impact of education and gender in Suicidal Ideation

ANOVA is applied to find out the impact of education and gender in suicidal ideation (Table 2). The F value presented the table is significant at 0.01 levels for both gender and level of education. Hence, t-ratio was computed to find out the significance of the difference between mean scores of male and female in for gender and undergraduate students and post-graduate and

search scholars under level of education. The mean scores and t- values of various sample groups are presented in table 3.

The impact of education in Suicidal Ideation

The mean score of under graduate students (5.30) is significantly more than the post graduate students (1.20). The t-ratio is 4.82, which is significant at 0.01 levels. This indicated that under graduate students have significantly more suicidal ideation than the post graduate students and research scholars. Because of, education makes brain broad due to this people able to think positively, maturity level increased, to get opportunity to know about social, psychological and health issues either it is religious, communal, regional or development of human beings. But they have more pressure of subject selection (Engineering, Medical, etc) after 12th pressure of education to get better marks, insecurity to get job, work load, etc.

The impact of gender in Suicidal Ideation

The mean score of female (4.58) is more than male (2.01) counterparts. The t- value is 2.99, which is significant at 0.01 levels. This indicates that female have significantly more suicidal ideation than the male counterparts. This finding is in agreement with findings of a studies from Jamaica [16] Iraq [17] Pakistan [18] China [19] and Norway.[11] Females have a lot of restriction in their society as well as family environment due to this, they always suffer. It might be in work place, society, school, college and anywhere. In the Indian context, females follow rules and regulations of society. They can't express anything about their problems and pleasure, and most of the times they try to cope with the situation.

Inter-correlation between various dimensions of Suicidal Ideation

Product moment correlation was computed to find out the inter-relationship between various dimensions as well as between each dimension with total scale. The correlation values are presented in table 4. The correlations of various dimensions are significant at 0.01 levels. This indicates all dimensions are positively correlated with each other and total scale. This reveals that a person who has more suicidal ideation is one dimensions will have equally high suicidal ideation in other dimensions.

Conclusion

The prevalence of severe and moderate suicidal ideation is more in undergraduate and female students as compared to postgraduate and male students. There is significant impact of level of education and gender on suicidal ideation. The undergraduates and females have significantly more suicidal ideation than post graduate students and research scholars and males. Various dimensions of suicidal ideation are positively and significantly correlated with each other and also each dimension is positively and significantly correlated with the total scale score. It is therefore recommended that awareness cum educational programme should be given to university students focusing on girls and undergraduate students.

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