

Prevalence and Predictors of Suicidal Ideation Among Adolescents

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Abstract

Suicides among young people continue to be a serious problem. Suicide is the second leading cause of death for children, adolescents, and young adults. The objectives of the present study were to assess the prevalence and predictors of suicidal ideation among adolescents; associate suicidal ideation among adolescents with selected socio-demographic variables and predictors. Quantitative research approach and descriptive research design was adopted for the study. The study was conducted among 250 adolescents selected through purposive sampling technique from selected Colleges, Thrissur. The tool consisted of a semi structured questionnaire to assess the socio-demographic data, Columbia Suicidal Severity Rating Scale (C-SSRS) screen version to assess the prevalence of suicidal ideation and a structured questionnaire to assess the predictors of suicidal ideation among adolescents. Reliability and validity of the tools were established. Data were collected, tabulated and analyzed using descriptive and inferential statistics. The findings of the study revealed that the prevalence rate of suicidal ideation among adolescents is 28%. The predictors such as lack of teachers support (91.4%), social media abuse (74.3%), loneliness and hopeless (72.9%) are found in most of the adolescents. A statistically significant association was found between education of father ($p=0.04$) and education of mother ($p=0.04$) with suicidal ideation among adolescents at $p<0.05$. The predictors such as family history of suicide ($p=0.00$), helplessness ($p=0.04$) and lack of parental support ($p=0.01$) have a statistically significant association with suicidal ideation among adolescents. The study concluded that the prevalence rate of suicidal ideation among adolescents is significant. The early identification of the predictors can prevent the actual occurrence of suicide among adolescents.

Keywords: [Suicidal Ideation, Adolescents, Prevalence, Predictors]

Introduction:

Suicide occurs throughout the world, affecting individuals of all nations, cultures, religions, genders, and classes. Other innate factors, such as disorders of the mind and abnormalities at birth, can heighten someone's propensity for experiencing depression, whether as the occasional episode or a lifelong ailment. To lower the rates of deaths resulting from suicide, countries need to address many common underlying factors that add up and make someone more likely to choose suicide as an outlet.¹

According to the World Health Organization (WHO), the global suicide rate in 2023 is 11.4 people per 100,000 people. However, this rate varies widely from country to country. The country with the highest

suicide rate in 2023 is Lesotho, with a rate of 75.6 suicides per 100,000 people. The suicide rate in India in 2023 is 12.4 suicides per 100,000 people.²

Globally, suicide is the fourth leading cause of death in 15-29 year olds. While most deaths by suicide occur in low and middle-income countries, the highest age standardised suicide rate of 10.9 per 100,000 occur within high-income countries. According to the World Health Organization, a few of the variables that might lead to more prominent suicide rates include a family history of suicide, child abuse, alcohol and drug abuse, and mental illnesses. There are a few possible factors that signify the suicide rate among adolescents and youths compared with other age groups, particularly an increase in relationship problems, educational distress, social media use, depression, anxiety, trauma, and so forth.³

The estimated number of suicides in India in 2023 according to World Health Organization is 1,51,114. Some of the specific factors that have been linked to suicide in India include poverty, unemployment, substance abuse, and domestic violence.⁴

According to the National Crime Records Bureau (NCRB) August, 2022, a total of 1,64,033 suicides were reported in India which is an increase of 7.2% in comparison to the previous year. A majority of suicides were reported in Maharashtra followed by Tamil Nadu, Madhya Pradesh, West Bengal, and Karnataka. Kerala has the suicidal rate of 26.9%. Family problems and illness were the major causes of suicides as per the report¹⁰. The age group of 18 to 30 years accounted for 34.5% of total suicides. A significant proportion of these individuals were students. As many as 13,039 students died of suicide in 2021. The highest percentage of suicides consistently seen among the young, productive population of the country. Academic failures and relationship issues dominate the causes of suicide in the young. Other causes reported in literature include substance abuse and impulsivity.⁵

Adolescence is the age group which has poor ability to regulate emotions and become impulsive and depressed. They often found suicide as the best solution to their problems and so the suicidal rates among adolescents are increasing day by day. One of the most persistent problem in suicidal prevention is assessing who will make an attempt. Hence the researcher realized the importance of assessing the various predictors of suicidal ideation among adolescents and identify the adolescents with active suicidal thoughts thereby preventing the actual attempt⁶

Review of literature

Prevalence of suicidal ideation

A study was conducted on prevalence of suicidal attempts and suicidal ideation and its relationship with aggression and bullying among Chilean adolescents in May 2023. Sample was composed of 728 adolescents schooled from Arica city. Among the samples, 56.6% were males and 43.4% were females. The average age of the sample was 15.6 years. The study findings reported that 18.4% of the students had attempted suicide and 65.6% had suicidal ideation. The prevalence of suicide attempts (29.1%) and suicidal ideation (76.6%) were higher in female adolescents. The study also found that suicidal attempts and suicidal ideation were positively and significantly correlated with aggressiveness and bullying.⁷

A comparative study was conducted to assess suicidal thoughts and behaviors and non-suicidal self-injury among autistic and non-autistic early adolescents from Vanderbilt University Medical centre in Nashville in 2023. Columbia Suicide Severity Rating Scale was used in 239 early adolescents without intellectual disability, of whom 138 were autistic. The study found that a greater proportion of autistic youth reported lifetime suicidal ideation (23.9%) and non-suicidal self-injury (8.7%) than non-autistic youth suicidal ideation (6.9%) and non-suicidal self-injury (2.0%). However, there were no sex-based differences. Non-

autistic youth were consistent in reporting suicidal thoughts but nearly one in five autistic youth disclosed suicidal thoughts on a self-report measure, but not on the clinician-rated Columbia Suicide Severity Rating Scale. Findings also suggested that the Columbia Suicide Severity Rating Scale may be a useful measure of suicide risk for adolescents.⁸

A cross-sectional study was conducted at a medical college of western India to assess the prevalence and predictors of suicidal ideation among medical students. Data were collected from 506 students using semi structured questionnaire. Prevalence of suicidal ideation was found to be 4% and 1% students seriously considered taking their life. They mentioned friends as the preferred source of help. The study reveals that suicide ideation was found associated with female gender, alcohol usage, history of facing any form of abuse and presence of stressors related to academics, friends and family.⁹

Predictors of suicidal ideation

A community based cross-sectional study was conducted to estimate the prevalence ratio and factors associated with suicidal behaviour among 400 adults, 18 years and above in rural and urban areas of Puducherry, India in 2021. Columbia Suicide Severity Rating Scale questionnaire was used. The study concluded that prevalence of suicidal ideation and suicide attempt were very high. Unemployment, physical abuse and family issues were significantly associated with suicidal behaviour.¹⁰

A descriptive study was conducted to assess the psychosocial and clinical factors associated with adolescent suicide attempts among 203 consecutive cases of attempted suicide attending Jawaharlal Institute of Postgraduate Medical Education & Research [JIPMER] General Hospital casualty and outpatient services. The aim of the study was to assess the demographic and clinical variables of adolescent suicide attempters and comparing certain potential risk factors between adolescent and adult suicide attempters. The study found that the potential risk factors for suicide attempts in adolescents include female gender, psychopathology especially a major depressive disorder, previous suicide attempts, hopelessness, recent stressful life events, suicide attempts by family members or friends, chronic physical illness, family violence and dysfunction and lower academic achievement.¹¹

A school based cross sectional study was conducted to assess the prevalence and factors associated with suicide ideation and suicide attempt among 573 adolescent high school students between the age group of 15-19 in Dangila Town, Ethiopia, 2018. The prevalence of suicide ideation and attempt was 22.5% and 16.2%, respectively. School absenteeism and poor social support were positively associated with suicide ideation. Poor social support and being physically hurt were positively associated with suicide attempt. This study revealed that at least one in five of the adolescents in their sample had experienced suicide ideation and one in six had attempted suicide. School absenteeism, poor social support, and experience of violence were identified as independent contributors to suicide ideation and attempt¹²

Objectives

1. Assess the prevalence of suicidal ideation among the adolescents.
2. Assess the predictors of suicidal ideation among adolescents
3. Associate the suicidal ideation among adolescents with their selected demographic variables.
4. Associate the suicidal ideation among adolescents with their selected predictors.

Hypothesis

H1: There is a significant association between suicidal ideation among adolescents and their selected demographic variables.

H2: There is a significant association between suicidal ideation among adolescents and their selected predictors.

Materials and Methods:

Descriptive research design was adopted in the study. Sample consist of 250 adolescents between 18 – 21 years of age who met the inclusion criteria, selected using Purposive sampling technique from three Arts and Science Colleges in Thrissur.

Tools used for the present study are categorized into:

Tool 1: Semi structured questionnaire to assess the socio-demographic variables of adolescents.

Tool 2: Columbia-Suicide Severity Rating Scale (C-SSRS) Screen version to assess the suicidal ideation among adolescents.

Tool 3: Structured questionnaire to assess the predictors of suicidal ideation among adolescents.

The Formal permission for data collection was obtained from concerned authorities and the informed consent from participants were obtained. The researcher administered the tools and collected the responses. The data was tabulated and analyzed by descriptive and inferential statistics. The ethical aspect of the study was maintained throughout the data collection.

Pilot study

After obtaining permission from the institutional ethical committee and concerned authorities of selected colleges, 32 samples who met the inclusion criteria were selected by using purposive sampling technique. After giving assurance regarding the maintenance of confidentiality, informed consent was obtained from the study participants. The data analyzed revealed that the study was feasible.

Results

The findings of the study revealed that 114 (46.4%) adolescents belong to the age of 19 years, 168 (67.2%) adolescents were females. More than half of the study participants, 162 (64.8%) were Hindus. The majority of 178 (71.2%) adolescents have one sibling. With regard to the educational programme, 50.8% of the subjects were pursuing Bachelor of Commerce. Approximately half of the subjects, 148 (59.2%) were doing their second year of study. Majority of their fathers, 97 (38.8%) had completed secondary education. Most of the participants mothers, 75 (30%) had completed higher secondary education.

With respect to the occupation of parents of the adolescents, most of their fathers (56%) were self-employed and more than half (51.2%) of their mothers were home maker. The findings on monthly income depicts that 78 (31.2%) adolescents have monthly income between ₹.5000-15,000/-. Most of the adolescents (99.6%) were financially supported for education by their parents.

Figure 1: Percentage distribution of subjects based on the prevalence of suicidal ideation

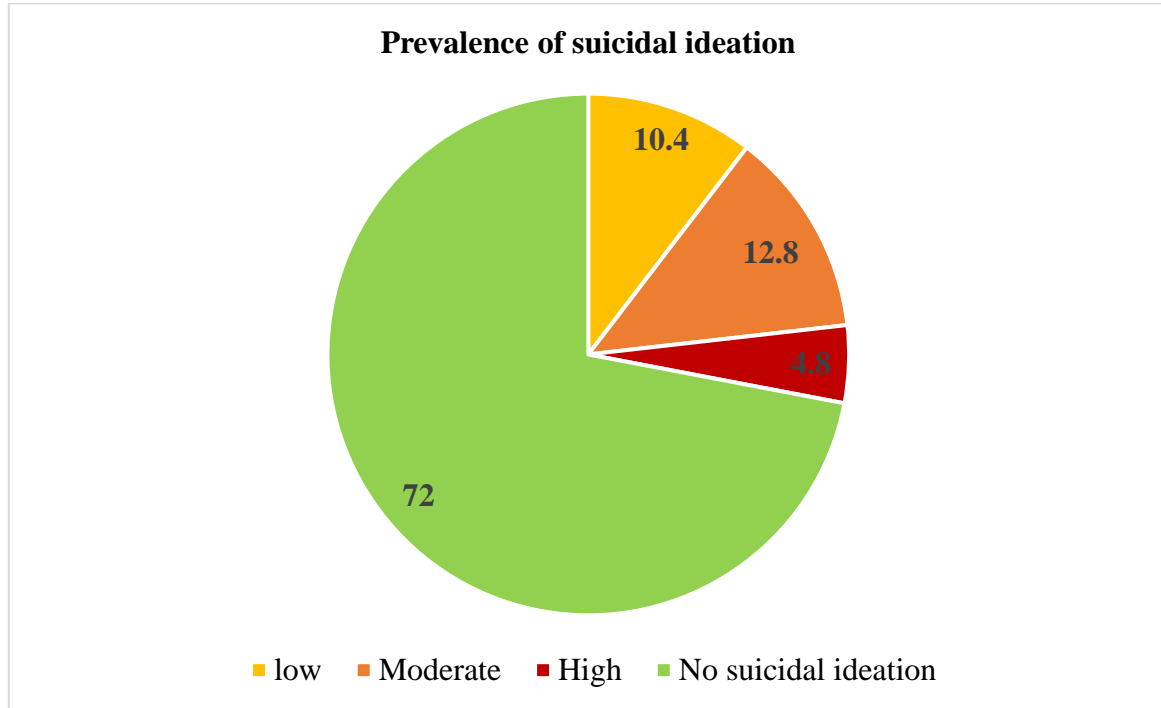


Table 1: Frequency and percentage distribution of predictors of suicidal ideation among adolescents.

Predictors	Frequency(n)	Percentage(%)
Family history	27	38.6
Physical illness	4	5.7
Body image disturbance	33	47.1
Sleep problem	29	41.4
Alcohol and substance use	16	22.9
Parental alcohol and substance use	31	44.3
Physical abuse	18	25.7
Sexual abuse	20	28.6
Loneliness	51	72.9
Helplessness	45	64.3
Hopelessness	51	72.9
Worthlessness	33	47.1
Lack of peer support	32	45.7
Lack of parental support	43	61.4
Lack of teachers support	64	91.4
Academic worries	46	65.7
Social media abuse	52	74.3

Table 1 shows that among the seventeen predictors assessed, lack of teachers support (91.4%) is the most common predictor and physical illness (5.7%) is the least common predictor of suicidal ideation among adolescents.

Table 2: Association of suicidal ideation among adolescents with their selected socio-demographic variables.

Socio-demographic variable	fisher exact test value	p value
Age	13.58	0.05
Gender	1.64	0.52
Religion	0.88	0.96
Number of siblings	3.24	0.91
Name of course	2.92	0.84
Year of study	2.97	0.22
Education of father	14.46	0.04*
Education of mother	14.15	0.04*
Occupation of father	0.94	0.99
Occupation of mother	2.43	0.90
Family income	1.74	0.97

*p≤0.05

Table 2 shows that there was a statistically significant association between education of father (p=0.04) and education of mother (p=0.04) with suicidal ideation among adolescents.

Table 3: Association of suicidal ideation among adolescents with their selected predictors.

Predictors	fisher exact test value	p value
Family history	15.10	0.00*
Physical illness	6.04	0.07
Body image disturbance	1.74	0.81
Sleep problem	3.89	0.42
Alcohol and substance use	4.13	0.37
Parental alcohol and substance use	6.33	0.15
Physical abuse	3.70	0.43
Sexual abuse	4.27	0.34
Loneliness	3.59	0.46
Helplessness	9.57	0.04*
Hopelessness	2.51	0.65
Worthlessness	5.57	0.22
Lack of peer support	5.99	0.18
Lack of parental support	12.20	0.01*
Lack of teachers support	4.63	0.23
Academic worries	2.93	0.60
Social media abuse	2.17	0.72

*p≤0.05

Table 3 depicts that among the various predictors assessed, family history of suicide (p=0.00), helplessness (p=0.04) and lack of parental support (p=0.01) have a statistically significant association with

suicidal ideation among adolescents at $p \leq 0.05$.

Discussion

The prevalence of suicidal ideation assessed by using Screen version of Columbia-Suicide Severity Rating Scale (C-SSRS Screen) revealed that the prevalence of suicidal ideation among adolescents is 28.0%. In that, 12.8% had moderate suicidal ideation; 10.4% had low suicidal ideation and 4.8% had high suicidal ideation. The findings of the present study are in alignment with a cross sectional study conducted at six private colleges in Mount Lebanon in 2019 among 400 adolescents with an aim to validate the Columbia-Suicide Severity Rating Scale (C-SSRS) and determine the prevalence of suicidal ideation showed that 28.9% had suicidal ideation.¹³

The investigator assessed the predictors of suicidal ideation among adolescents using a structured questionnaire which had 17 predictors under 34 items. The results of the present study revealed that among 70 adolescents who had suicidal ideation, 64(91.4%) had lack of teachers support; 52 (74.3%) had social media abuse; 51 (72.9%) had loneliness and hopelessness; 46 (65.7%) had academic worries; 45 (64.3%) had helplessness; 43 (61.4%) had lack of parental support; 33 (47.1%) had body image disturbance and worthlessness; 32 (45.7%) had lack of peer support; 31 (44.3%) had parental alcohol and substance use; 29 (41.4%) had sleep problem; 27 (38.6%) had family history of suicide; 20 (28.6%) had sexual abuse; 18 (25.7%) had physical abuse; 16 (22.9%) had habit of alcohol and substance use; 4 (5.7%) had physical illness. The above findings are in coherent with the results of a cross-sectional study carried out in selected senior secondary schools in Shimla district of Himachal Pradesh, India in 2015 and depicts that out of 218 adolescents, 31.2% had lack of parental support, 14.3% had poor relation with teachers, 27.1% had lack of peer support, 40.1% had verbal and physical abuse and 39.4% had body image conscious.¹⁴

In the present study, the investigator found the association of suicidal ideation among adolescents with their selected demographic variables using Fisher exact test. The findings show that the education of fathers ($p=0.04$) and education of mothers ($p=0.04$) of adolescents have a statistically significant association with suicidal ideation among adolescents at $p \leq 0.05$. Similar findings are observed in a cross-sectional survey conducted to examine the relationship between parental socio-economic conditions and suicidal ideation among 2476 adolescents in rural Bangladesh in 2018. It revealed that adolescent's suicidal ideation was significantly associated with education, marital status and house ownership of their parents.¹⁵

The investigator analysed the association of suicidal ideation among adolescents with their selected predictors using Fisher exact test. The findings depicted that the family history ($p=0.00$), helplessness ($p=0.04$) and lack of parental support ($p=0.01$) have a statistically significant association with suicidal ideation among adolescents at $p \leq 0.05$. These findings were congruent with the findings of a cross sectional survey on prevalence and familial predictors of suicidal behaviour among adolescents in Ludhiana in 2016 and it identified that the suicidal behaviour were significantly associated with low satisfaction in family relationships, lack of parental support, low mother's monitoring, low school-related parental support, family history of suicidal attempt and authoritarian parenting style.¹⁶

Conclusion

The findings of the present study throw light on the prevalence and predictors of suicidal ideation among adolescents which were unidentified by the immediate support systems. The support systems like family, teachers in case of students, peer group in case of friends etc. have a considerable role in detecting cases

and preventing suicidal attempts in them. Early identification of the predictors can prevent the actual occurrence of suicide among adolescents. Awareness programs on prevention of suicide has become a mandatory practice in health care delivery in this complex world.

Limitations

As such the investigator did not face any difficulties and limitations in conducting the study.

Conflict of Interest

The author has no conflict of interest.

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