

Factor Affecting Suicidal Behavior among Adolescents in Selected Higher Secondary School of Kathmandu Valley

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ABSTRACT

Introduction: Suicidal behavior is the leading cause of injury and death among youth worldwide. It has been described as thoughts and activities such as suicidal ideations, planning, and attempts. Suicide has become a global phenomenon and poses a serious public health threat. Nearly 800,000 people commit suicide each year, and the number of people committing suicide is innumerable. Hence, this study aimed to find out the risk factors that affect suicidal behavior among adolescents of Kathmandu and Lalitpur.

Methods: A descriptive study was conducted among 11th and 12th grade students of four higher secondary schools, situated in Kathmandu and Lalitpur city of Nepal after receiving ethical approval from NHRC. A simple random sampling technique was opted in this study. The questionnaires were self-administered among 400 participants. The collected data were checked thoroughly, edited, coded into different categories, and analyzed and interpreted through SPSS version 16.

Results: The prevalence of suicidal ideation, suicidal plan, suicide attempt, and suicidal behavior was 29%, 32%, 10%, and 29% respectively. Similarly, a significant association was seen between sex, teacher's attitude, parental understanding, academic pressure, and bullying with the dependent variable.

Conclusions: The prevalence of suicidal ideation, suicidal plan, suicide attempt, and suicidal behavior was concerning. Different factors such as parental understanding, the attitude of teachers, bullying, academic pressure, and substance use were found to be associated with suicide and its overall idea.

Keywords: *Adolescents; Nepal; Suicidal behavior.*

INTRODUCTION

Suicide is the act where a person deliberately tries to kill himself/herself that is most often caused as a result of stress, depression, or other mental illness.¹ According to WHO, each year approximately 800,000 people take their own life which has become a global phenomenon across the world.^{1,2} The numbers are increasing at an alarming rate among young people aged 15 to 24 years. In 2016, more than 79% of global suicides occurred in low- and middle-income countries.¹ According to pilot research done in Nepal in 2018, suicidality is prevalent among teenagers aged 13 to 17 years old.³

Studies have found the linkage of suicidality among teenagers with varieties of conditions, including personal/ behavioral factors, family environment, health problems, environmental factors, and many others.³ Thus, this study was intended to study factors affecting suicidal behavior among adolescents in the selected higher secondary school of Kathmandu and Lalitpur.

METHODS

A descriptive study was conducted among 400 higher secondary level students, Kathmandu, Nepal. A total of 4 colleges were selected through a simple random

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sampling technique from the list provided by Higher Secondary Education Board (HSEB). Ethical approval was taken from the Nepal Health Research Council (Ref no. 776/2018) as well as respective schools for the conduction of the study. Likewise, informed consent was taken from the participants of the study.

All the students of classes 11 and 12 of respective schools were included in the study. Students with chronic medical illness and severe mental problems were excluded.

The sample size was calculated using the following formula:

$$\begin{aligned}\text{Sample size } (n) &= z^2pq/d^2 \\ &= (1.96)^2 \times 0.50 \times 0.50 / (0.05)^2 \\ &= 384\end{aligned}$$

Where,

Prevalence (p) = 50% = 0.50,

q = complement of prevalence = 1 - 0.50 = 0.50,

Confidence Interval (CI) = 95%, Z = 1.96

Margin of error (d) = 5% = 0.05

Taking 10% non-response rate, total sample size was 422 but out of 422 questionnaires only 400 questionnaires had complete response making a response rate of 94.8%.

The questionnaire was self-designed after reviewing literature from different studies which were self-administered among the respondents. The questions were asked about suicidal behavior and the factors that provoked him/her in the past 12 months. For reliability of data, pre-testing was conducted prior to the research for 10 % of the sample size with similar characteristics. The collected data was checked thoroughly, edited, and coded into different categories. Then, it was entered in SPSS version 16 for its analysis.

RESULTS

Out of 400 students, the prevalence of Suicidal ideation, Suicidal plan, Suicide attempt, and Suicidal behavior among the respondents was 29%, 32%, 10%, and 29% respectively.

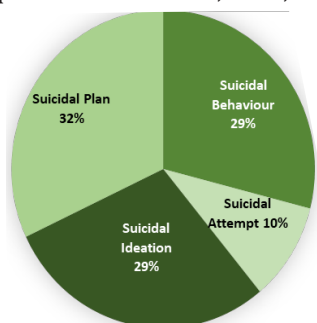


Figure 1. Prevalence of Suicidal Ideation, Suicidal Plan, Suicide Attempt, and Suicidal Behavior (n=400)

Out of the total respondents, the majority (54.8%) were between the age group of 15-17 years. More than half of the respondents (54.5%) were female. Similarly, the majority of the students (63.3%) were from grade 12 and followed Hinduism (82.8%) as their major religion. About 97.8% were unemployed and were from the Brahmin/Chhetri (52%) ethnic group. Almost three-fourths of the students (74%) were found staying in a nuclear family and more than half of the students 59.5% had a family income of more than NPR. 40000-50000 per year. The majority of students' parents were literate (85.3%). Likewise, business (48.8%) was found to be the most common occupation of the majority of respondents' parents. Data on substance use reported 10.5% of respondents abusing substances.

Table 1. Socio-demographic information of respondents (n=400)

Socio-demographic variables	n (%)
Age (in years)	
15-17	219(54.8)
18-20	181(45.3)
Gender	
Male	182(45.5)
Female	218(54.5)
Educational status	
Grade 11	147(36.8)
Grade 12	253(63.3)
Religion	
Hindu	331(82.8)
Buddhist	42(10.5)
Kirat	5(1.3)
Christian	22(5.5)
Other	1(0.3)
Occupation	
Employed	8(2.0)
Unemployed	391(97.8)
Ethnicity	
Brahmin/Chhetri	208(52.0)
Terai/Madhesi	31(7.8)
Newar	72(18.0)
Janajati	75(18.8)
Muslim	1(3.0)
Others	13(3.3)
Type of family	
Joint family	103(26.0)
Nuclear family	296(74.0)
Family income (NPR)	
10,000-20,000/year, below level	26(6.5)
40,000-50,000/year, medium level	238(59.5)
More than 50,000/year, high level	136(34.0)

Socio-demographic variables	n (%)
Education of parents	
Literate	341(85.3)
Illiterate	57(14.3)
Occupation of parents	
Business	195(48.8)
Wage laborer	14(3.5)
Service	105(26.3)
Farming	35(8.8)
Others	51(12.8)
Substance use	
Yes	42(10.5)
No	358(89.5)

Table 2 shows that sex, teacher's attitude, and academic pressure were significantly associated with suicidal ideation ($p > 0.05$).

Table 2. Association of Suicidal Ideation with independent variables (n=400)

Factors	Suicide Ideation		P-value
Sex of the respondent	Yes, n(%)	No, n(%)	<0.01*
Male	8(15.7)	174(49.9)	
Female	43(84.3)	175(50.1)	
Teachers Attitude			<0.01*
Strict & unfriendly	27(52.9)	70(20.1)	
Gentle & friendly	24(47.1)	279(79.9)	
Academic pressure			<0.01*
Never/rarely	7(11.8)	136(39.0)	
Most of the time	45(88.2)	212(60.7)	

*P-value less than 0.05 significant

Academic pressure, parental understanding, substance use, teacher attitude, and times of being bullied were shown to be strongly associated with suicide plan, as shown in the table. ($P > 0.05$)

Table 3. Association of Suicidal Plan with independent variables (n=400)

Factors	Suicide Plan		P-value
Academic pressure	Yes, n(%)	No, n (%)	0.02*
Never/rarely	11(19.6)	131(38.1)	
Most of the time	45(80.4)	212(61.6)	
Parental understanding			<0.01*
Never/rarely	25(42.9)	76(22.1)	
Most of the times	32(57.1)	267(77.6)	
Substance use			<0.01*
No	47(83.9)	311(90.4)	
Yes	9(16.1)	33(9.6)	

Factors	Suicide Plan		P-value
Teachers Attitude			<0.01*
Strict & unfriendly	25(44.6)	72(20.9)	
Gentle & friendly	31(55.4)	272(79.1)	
Victim of Bullying			0.01*
Zero times	36(64.3)	279(81.1)	
One/more times	21(35.7)	64(18.6)	

*P-value less than 0.05 significant

According to table 4 suicide attempt was found to be associated with parental understanding, teacher's attitude, and sex of respondents ($p > 0.05$).

Table 4. Association of Suicide Attempt with independent variables (n=400)

Factors	Suicide Attempt		P-value
Parental understanding	No attempt, n(%)	One or more times, n(%)	<0.01*
Never/rarely	90(23.5)	11(58.8)	
Most of the times	292(76.2)	7(41.2)	
Teachers Attitude			<0.01*
Strict & unfriendly	87(22.7)	10(58.8)	
Gentle & friendly	296(77.3)	7(41.2)	
Sex of the respondent			<0.01*
Male	180(47.0)	2(11.8)	
Female	203(53.0)	15(88.2)	

*P-value less than 0.05 significant

As presented by table 5 suicidal behavior was found to be associated with parental understanding, teacher's attitude, sex of respondents and academic pressure ($p > 0.05$).

Table 5. Association of suicidal behavior with independent variables (n=400)

Factors	Suicide Behavior		P-value
Parental understanding	Yes, n(%)	No, n(%)	<0.01*
Never/rarely	23(44.2)	77(22.1)	
Most of the times	29(55.8)	270(77.6)	
Teachers Attitude			<0.01*
Strict & unfriendly	28(53.8)	69(19.8)	
Gentle & friendly	24(46.2)	279(80.2)	
Sex of the respondent			
Male	8(15.4)	174(50.0)	<0.01*
Female	44(84.6)	174(50.0)	

Factors	Suicide Behavior		P-value
Academic pressure			
Never/rarely	6(11.5)	136(39.1)	<0.01*
Most of the time	46(88.5)	212(60.9)	

*P-value less than 0.05 significant

DISCUSSION

Suicide is more common in older people than in younger people, but it continues to be one of the leading causes of death in late childhood and adolescence worldwide. This not only causes the loss of many young lives but also has devastating psychosocial and socio-economic consequences.⁴ Our study found out that the prevalence rate of Suicidal ideation, Suicidal plan, Suicide attempt, and Suicidal behavior among adolescents was 29%, 32%, 10%, and 29% respectively. Similar to the finding presented by our study, a study conducted in Peru reported a total of 26.3% of participants having suicidal ideation. However, a suicidal attempt was found to be slightly higher among the participants in Peru making up a total of 17.5% compared to the present study.⁵

The result of our study differed from the findings shown by the study conducted in a similar setting in Nepal which reported that a total of 16.7% had suicidal thoughts followed by 14.29% of participants who made suicidal plans and 4.76% who attempted suicide.³ In the context of factors affecting suicidal behavior in adolescents, we found out parental understanding, teachers' attitude, sex, and perceived academic pressure as factors that trigger suicidal behavior among adolescents. Nevertheless, one study pointed out the history of parental abuse, exam results, and teachers abuse as the factors affecting suicidal behavior of adolescents which is somehow similar to our study.⁶

We found out that suicidal ideation and suicidal attempt were quite high among female adolescents which is identical with the study done in Peru.⁵ This might be due to excessive use of social media by girls and the likelihood of girls being the victim of cyberbullying.⁷

CONCLUSIONS

The prevalence of suicidal ideation, suicidal plan, suicide attempt, and suicidal behavior was concerning. Different factors such as parental understanding, the attitude of teachers, bullying, academic pressure, and substance

use were found to be associated with suicide and its overall idea. Hence, in order to minimize it, prompt attention should be put forward in developing healthy social interactions with parents, teachers, and peers for early prevention of suicide of susceptible adolescents.

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CONFLICT OF INTEREST

None

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