

Awareness on Suicide among Adolescents Residing in Metropolitan City, Kathmandu

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ABSTRACT

Introduction: Suicide is become a primary cause of mortality and illness in adolescents, worldwide and has been identified as one of the key mental health problems, which is the third leading cause of death among adolescents. The objective of the study is to find out awareness on suicide among adolescents.

Methods: A descriptive cross-sectional study was conducted among 145 respondents in Kathmandu Metropolitan city ward no. 14, Kalanki. Non-probability convenient sampling technique was used. Data was collected by self-administered questionnaire by using self-developed structured tool. Data was analyzed using descriptive and inferential statistics.

Results: The findings of this study reveals that more than half of respondents (56.6%) had high level of awareness and (43.4%) had low level of awareness on suicide. Despite of that, less awareness on risk factors (66.2%), prevention on suicide (65.5%) and suicidal behaviour (57.2%). There was no association between level of awareness and selected variables i.e. age, sex, ethnicity, education, marital status, family type, staying with and income.

Conclusion: The study findings conclude that there is need to enhance the level of awareness among adolescents to prevent potential risk from suicidal behavior.

Keywords: Adolescents, awareness, suicide

INTRODUCTION

Adolescence is a unique developmental period of life marked by the transition from childhood to adulthood in which adolescents have to adjust to various changes and challenges, and this might make adolescents prone to various psychosocial problems.¹ In the United States, suicide is the third leading cause of death among adolescents. Suicide accounted 8% of deaths in aged 10 to 14 years and 14 % of deaths in aged 15 to 19 years.² According to the World Health Organization (2021), more than 7, 00,000 people die due to suicide every year. A prior history of suicide attempts is the single most important risk factor for suicide in the general population. Among,

77% of global suicides occur in low and middle income countries.²

In Nepal, due to limited engagement of families in reporting suicide because of fear of legal entanglements anticipated with reporting suicide, anticipated stigma for families of suicide victims, and financial burden lead to the less evidence of suicide.³ A study conducted in Kerala, India showed that 40% of respondents had awareness on prevention of suicide, 31 % of respondents had awareness on general aspects on suicide and 14 % of respondents had awareness on management of a suicidal adolescents.⁴

A study conducted in Nepal showed that main risk factors of suicide are history of past suicidal attempts, the presence of mental illness,

substance use disorder, impulsivity, financial or social losses, and easy access to lethal means. Although, social support and strong problem-solving skills mitigate the risk of suicide, there is limited knowledge on suicide in the Nepalese community.⁵ A study conducted in Peru showed that, adolescents who were unhappy 9.0% with their lives were more likely to report suicidal ideation and suicide attempts and decreasing life satisfaction also considered the increasing prevalence of suicidal thoughts during adolescence.⁶

Based on the literature, suicide is the 3rd leading cause of death among adolescent, there is inadequate knowledge regarding suicide among adolescents. The researcher has found very limited research in the context of Nepal regarding suicide. Therefore, the researcher is interested to conduct this study. Suicide affects not only the individual, but also the adolescent's family, peers, school and community. Likewise, suicide does not just occur in high-income countries, but is a global phenomenon.² A study conducted in United Kingdom revealed that, whose sibling had attempted suicide were 3.5 times, a maternal suicide attempt were 2.7 times and paternal suicide attempt were 1.9 times risk family history which is likely to attempt suicide.⁷

In Canada, participants who were aware of a friend's non-suicidal self-injury (NSSI) was 23.5%. Among them who had knowledge of a friend's NSSI, 15.8% engaged in their own self-injury which was statistically significant ($p < 0.05$). Among those who were engaged in NSSI, 15.7% reported suicidal ideation and 8.1% had both thought about and attempted suicide.⁸

A cross-sectional study among Mexican adolescents showed that attempt suicide was 2.7% and proved higher among women than men i.e. 4.6% and 0.9% respectively. Adolescents who were living with relatives as grandchildren, nephews/nieces or others had 43% greater chance of attempt suicide than those living at home with their parents. Those who lacked social security were more likely to engage in attempt suicide.⁹

A study conducted in Turkey among students showed that 36.88 % had awareness regarding Literacy of Suicide Scale (LOSS) where 22.91% of respondents had awareness on symptoms and 67.11 % had awareness on treatment/precaution.¹⁰ A study conducted in china showed that, 32.7% of adolescents had at least one form of deliberate self-harm in the which common forms of self-harm were scratching (10.3%), preventing wounds from healing (9.2%), and wrist cutting (8.5%). Likewise, it also showed that family and social factors are linked to suicidal ideation and attempts i.e. history of physical abuse (OR = 5.8), conflicts with friends (OR = 5.72), poor family relationship (OR = 3.8) and perceived loneliness (OR = 2.2).¹¹

A study conducted in India, indicates that majority of adolescents (85%) were from the age group of 15-18 years, 50% were educated up to secondary level, 68% belonged to joint family where, 10% had high level of knowledge regarding suicide. Among them 51% adolescents got the information about suicide from newspaper.¹² A study conducted in South Western Rajasthan, indicated that 22.5% had knowledge on meaning, 24 % had knowledge on risk factors and warning signs and 25.45 % had knowledge on preventive measure of suicide.¹³

A study conducted in India, risk factors of suicide were family problem (43.96%), and economic problems (42.5%), physical problems (37.5%), psychological problems (34.1%), academic problems (31.56%), negative peer relations (22.5%), problems related to love affairs (15%) and family history of mental illness (12.5%) were the main factors responsible for suicide.¹⁴

A study conducted in South Africa, participants reported that peers who completed suicide displayed changes in behavior some weeks or days before their suicide and they seemed to bid farewell to their friends. The changes in behaviors included, sleeping during study, talking about death, withdrawing from social interactions, exhibiting mood changes, truancy, and writing farewell messages. Early identification of these warning signs of suicide by students and referral to professional help might prevent attempt suicide among adolescents.¹⁵

Different literature suggested that early identification of warning signs of suicide and referral to professional help might prevent attempt suicide among adolescents. Up to this date researcher had found few studies conducted in Nepal related to awareness on suicide among adolescence. This study will determine adolescent awareness on suicide in Kathmandu district to some extent and give thorough review of the prevention strategies that improve health.

METHODS

A descriptive cross-sectional study was conducted in ward no. 14 of Kathmandu Metropolitan City, Kalanki, Bagmati Province, to assess adolescents' awareness of suicide. The study targeted adolescents aged 15 to 19, with a population of approximately 8,400. Using non-probability convenient sampling, a sample size of 145 was calculated based on Cochran's formula, considering 10% high awareness on suicide (Aryal, 2015) and a 5% non-response rate. Data were collected using a self-developed questionnaire, translated into Nepali with expert assistance. The questionnaire was divided into two parts:

Part I: It consists of questions related to socio-demographic characteristics.

Part II: It consists of multiple-choice questions and multiple responses which was related to awareness on suicide among adolescents including meaning, risk factors, suicidal behavior (warning signs) and preventive measures. For each question, 1 mark was given for each correct answer and 0 for each wrong answers. Level of Awareness was categorized as:

High level awareness: \geq mean score 28.23

Low level awareness: $<$ mean score 28.23

The instrument's validity and reliability were ensured. Data was collected through a self-administered questionnaire by the researcher. Approval was obtained from the Internal Research Committee of MMIHS and formal permission from the authority of Kathmandu Metropolitan City, Ward No. 14. Informed consent

was taken from respondents over 16 years, while assent was obtained from parents of those under 16. Anonymity and confidentiality were maintained by using code numbers and informing respondents that their names would not appear on the questionnaire.

Data was thoroughly checked for accuracy and completeness, then edited and coded. It was analyzed using SPSS version 16. Descriptive statistics (frequency, percentage, mean, and standard deviation) were applied, and chi-square and Fisher's exact tests measured the association between suicide awareness and socio-demographic variables.

RESULTS

Table 1. Socio-Demographic Characteristics of Respondents (n: 145)

Variables	Number	Percentage
Age in Years		
Middle adolescent (15-17)	81	55.9
Late adolescent (18-19)	64	44.1
Mean±SD (17.29±1.417)		
Sex		
Male	62	42.8
Female	83	57.2
Ethnicity		
Brahmin/ Chhetri	65	44.8
Madhesi	11	7.6
Dalits	9	6.2
Newar	42	29.0
Janjati	17	11.7
Muslim	1	7
Education		
Basic	12	8.3
Secondary	105	72.4
University	28	19.3
Marital Status		
Married	7	4.8
Unmarried	138	95.2
Family Type		
Nuclear family	57	39.3
Joint family	88	60.7
Staying with		
Grandparents	3	2.1
Uncle-aunty	21	14.5
Parents	114	78.6
Husband	7	4.8
Economic Status (Rs.)		
Low income (< 124878)	24	16.6
Lower middle income (124997- 489353)	71	49
Upper middle income (489472-1517053)	50	34.5
Suicidal related Information		
Family history of suicide	12	8.3
Exposed to suicidal attempt	12	8.3
Exposed to committed suicide	15	10.3

Table 1 reveals that 55.9% of respondents were aged 15-17 years, with 57.2% identifying as female. Additionally, 44.8% were from Brahmin/Chhetri backgrounds, and 72.4% had completed secondary education. Most respondents (95.2%) were unmarried, while 60.7% lived in joint families, and 78.6% resided with their parents. Nearly half (49%) had a lower middle-income economic status. Regarding suicidal behavior, 10.3% reported a family history of suicide, and 8.3% had either attempted or committed suicide.

Table 2: Level of Awareness on Suicide (n= 145)

Variables	Number	Percentage
Low awareness (<28.23mean score)	63	43.4
High awareness (≥28.23mean score)	82	56.6
Mean ± SD 28.23 ±3.68		

Table 2 depicts that the level of awareness on suicide, simple majority (56.6 %) had high level of awareness regarding suicide whereas, 43.4% of respondents had low level of awareness.

No significant association was found between the respondents' sex, ethnicity, family type, education, marital status, residence, family history of suicide, exposure to suicide attempts, and their level of awareness regarding suicide.

Table 3: Association between Level of Awareness on Suicide and Selected Variables

Variables	Categories	Level of Awareness		Chi square	p value
		High n (%)	Low n (%)		
Age	Middle adolescent (15-17)	41(50.6)	40(49.4)	2.63	0.10
	Late adolescent (18-19)	43(67.2)	21(32.8)		
Sex	Male	41(66.1)	21(33.9)	0.99	0.32
	Female	43(51.8)	40(48.2)		
Ethnicity	Brahmin / Chhetri	35(53.8)	30(46.2)	0.86	0.35
	Others (Dalit, Newar, Muslim, madeshi, janjati)	49 (61.2)	31(38.8)		
Types of Family	Nuclear family	35 (61.4)	22(38.6)	0.18	0.67
	Joint family	49 (55.7)	39(44.3)		
Education	Basic	64 (54.7)	53(45.3)	0.12	0.72
	Secondary	20 (71.4)	8(28.6)		
Marital Status	Married	3 (42.9)	4 (57.1)	-	1.00*
	Unmarried	81(58.7)	57(41.3)		
Staying with	Parents	53 (46.5)	43(53.5)	2.009	0.16
	Others (Grandparents, uncle-aunty, mother, father, husband)	10 (32.3)	21(67.7)		
Income	Low income	12(50)	12(50)	0.50	0.49
	Lower/middle income	72 (59.5)	49 (40.5)		
Family History of Suicide		84 (57.9%)	61 (42.1)	0.23	0.63
Exposed to Suicidal Attempt		84 (57.9%)	61 (42.1)	0.02	0.89
Exposed to Committed Suicide		84 (57.9%)	61 (42.1)	0.08	0.78

Significant ($p < 0.05$), * Fisher's exact test value

DISCUSSION

The survey revealed that 56.6% of respondents had a high awareness of suicide, significantly higher than a Turkish study, where only 36.88% of 1,100 participants showed similar awareness.¹⁰ This may be due to the different sample size ($n=145$) and the urban location of the study. It also contrasts with a survey of 100 respondents in Rajasthan, India, where 10% had high suicide awareness.¹² This could be attributed to the fact that all respondents were literate. The study found that 86.9% of respondents had a high awareness of the definition of suicide, in contrast to a study in South Western Rajasthan, where only 22.5% of 100 respondents showed high awareness.¹³ The majority of respondents (78.6%) live with

their parents, whereas in the contrasting study, only 39% do. Respondents identified financial issues (45.5%), stress (11.7%), mental illness (62.1%), and unemployment (49.7%) as suicide risk factors. In contrast, a study from Chandigarh, India, found lower percentages for these factors: financial problems (34%), stress (33%), mental illness (21%), and unemployment (15%).¹⁶ The difference may be attributed to the study setting, as all respondents were from urban areas, while in the contrasting study, 74.4% were from rural areas. In terms of suicide prevention, most respondents (65.5%) demonstrated a high level of awareness, similar to a Turkish study of 1,100 participants, which found that 67.11% were aware of prevention measures.¹⁰ This study's

findings contrast with those from Ernakulam, Kerala, where 40% of 150 adolescents were aware of suicide prevention.⁴ The majority of respondents (60.7%) lived in joint families, while a contrasting study found only 9.3% did. Additionally, nearly half (46.2%) identified hanging as the most common suicide method, compared to just 29.3% of 1,000 respondents in a New Zealand study who were aware of this method.⁹ The sample size of 145 may account for the difference observed. In this study, 57.2% of respondents recognized suicidal behavior, while a Chennai study found only 40.45% awareness among 60 respondents.¹⁷ This discrepancy may stem from the sample size (n=145) and the higher proportion (60.7%) of respondents from joint families, compared to 31.67% in the current study. A suicide study in Rajasthan, India, found no significant links between socio-demographic factors—such as age, sex, ethnicity, education, marital status, family type, residence, economic status, family history of suicide, or exposure to suicide attempts—and completed suicides.¹² In contrast to the study in southwestern Rajasthan, India, there were significant differences related to residence and awareness levels ($P < 0.05$).¹² This may be due to differences in residence, as 78.6% of respondents live at home, compared to only 39% in a contrasting study.

CONCLUSION

The study concludes that nearly half of the respondents were aware of suicide. Most were knowledgeable about its meaning, risk factors, and prevention, but less than half understood suicidal behavior. No significant association was found between suicide awareness and socio-demographic variables.

The research findings offer baseline data on adolescent suicide awareness and serve as a reference for future studies on suicide in Nepal. Nurses can implement structured programs to educate on suicide risks and early detection of suicidal behavior to help prevent its occurrence.

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