

Knowledge Regarding Risk Factors and Prevention of Suicidal Ideation among Adolescents in Jaipur: A Pilot Study

Mahesh Kumar Vijay¹, Prof. (Dr.) Nemichand Jat²

¹PhD Scholar, School of Nursing Sciences, Nirwan University, Jaipur, Rajasthan, India

²Research Supervisor, School of Nursing Sciences, Nirwan University, Jaipur, Rajasthan, India

Corresponding Author:

Mahesh Kumar Vijay, School of Nursing Sciences,
Nirwan University, Jaipur, Rajasthan, India.

E-mail:

maheshvijay03@gmail.com

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Abstract :

Background: A significant number of young people in India are killed by suicide. Adolescents who recognize the warning signs and potential danger of suicide are more likely to seek help, whether they are for themselves or someone they know.

Materials & Method: On July 4, 2026, a quantitative pilot study was conducted at Ganpati Keshorai College of Nursing in Jaipur. A sample of 40 adolescents aged 17 to 19 was consciously chosen by purposive sampling. Data were gathered using a Demographic Questionnaire and a 40-item Structured Knowledge Questionnaire. The reliability was checked with KR-20, and the data were examined at using descriptive statistics.

Results: The mean score for knowledge was 23.90 ± 6.16 , which is 59.75% of the total 40 points, with a range from 8 to 34. Most adolescents had moderate knowledge (72.5%), while 20% had inadequate knowledge and just 7.5% had adequate knowledge. The tool established a very good reliability score of $KR-20 = 0.91$ and was viable to use.

Conclusion: An awareness program could be used to address the areas where adolescents had significant knowledge gaps, despite their average knowledge. The device is effective and the primary research with 400 adolescents is feasible

Keywords: Adolescents; Knowledge; Pilot study; Suicidal ideation; Suicide prevention

INTRODUCTION

Every year, more than 700,000 people across the globe lose their lives to suicides, which is one of the leading causes of death among those aged 15 to 29.¹ According to the World Health Organization, adolescents aged 10 to 19 often experience rapid changes in their emotions and social interactions, leading to their first thoughts on suicide.²

In India, the National Crime Records Bureau estimated that there would be 124 suicides per 100,000 people in 2022, with student deaths becoming increasingly common.³ The age range of 15 to 29 years old saw around 40% and 56% of male and female suicide deaths, respectively, according to a nationwide survey.⁴ Public concern has been raised about student suicides

in Rajasthan.

It's common for a friend to be the first to know when he or she is having difficulty. Because adolescents are aware of the dangers, warning signs and where to seek help, they are more likely to be able to support themselves and their friends. According to the National Suicide Prevention Strategy, schools play a crucial role in raising awareness about suicide.⁵ Those who participate in school programs report greater levels of empathy, more people seeking help and lower suicide attempts while also having less severe suicidal thoughts.^{6,7}

Before a larger study, an experiment is conducted to evaluate the efficacy of the tools employed and their practicality in real-life scenarios.⁸ The pilot was

conducted before the primary study, which will involve 400 adolescents from selected schools in Jaipur.

OBJECTIVES:

1. To scrutinize the comprehension of risk factors and strategies to prevent suicidal behavior in adolescents.
2. To validate the reliability of the Structured Knowledge Questionnaire
3. To appraise the effectiveness of the study methods.

MATERIALS AND METHODS

Research approach and design: A quantitative approach along with a descriptive pilot design was employed.

Setting and Date: Data was collected on July 4, 2026 at Ganpati Keshorai College of Nursing in Jaipur, Rajasthan and this institute is not involved in the primary study.

Sample and sampling: Purposive sampling was used to select a pilot group of 40 adolescents, which made up 10% of the planned group size of 400. A pilot study is deemed satisfactory for a group of 30 to 40 individuals.⁹ Individuals aged 17- 19 who were present on the day and expressed their desire to participate were included. Individuals with medical conditions, absence from classes or seeking mental health support were not accounted for.

Tool: It had two parts:

Part I - Demographic Questionnaire: consist of eight variables: age groupings by gender category, place of residence, type of family affiliation, religious beliefs, father's educational level, mother' educational level and the family's monthly income.

Part II - Structured Knowledge Questionnaire: consist of five sections and forty multiple-choice questions.

Seven questions are assigned to general knowledge, ten to risk factors, seven for warning signs, nine for prevention and seven requests for help. An answer that is right was evaluated with a score of one and the highest possible score would be 40 marks.

Three grades were given out: inadequate 0-19 points (less than 50%); moderate 20-31 points (50% to slightly under 80%); or adequate 32-40 points (80% and above).

Validity and reliability: A team of experts from mental health nursing, community health nurses, psychiatry and biostatistics examined the content for its validity and reliability.¹⁰ Measuring reliability is possible with the Kuder–Richardson Formula 20 (KR-20), which is well-suited for questions that are either right or wrong.¹¹

Data collection: Permission was procured from the college principal. The study's purpose was enlightened and participants gave their written consent. For those under 18, permission was also obtained from their parents or guardians (assent). The questionnaire was handed out in a classroom. Students were informed that they could talk to the researcher or a college counselor if any question made them feel upset.

Data analysis: The use of descriptive statistics, such as the computation of frequency, percentage, mean, median, standard deviation and range, was a crucial aspect of data analysis.

RESULTS

Demographic characteristics: Of the 40 adolescents, 52.5% were between 17-18 years of age and 52.5% were female. The majority of them, 70% lived in rural areas and 57.5% came from nuclear families. Every participant was Hindu. Only 45% of the mothers had completed their primary education. 40% of the families made between ₹10,000 and ₹25,000 per month (Table-1).

Table-1. Demographic characteristics of adolescents (n = 40)

Variable	Category	Frequency	Percentage
Age (years)	17–18	21	52.5
	18–19	19	47.5
Gender	Male	19	47.5
	Female	21	52.5
Residence	Urban	10	25.0
	Semi-urban	2	5.0
	Rural	28	70.0
Type of family	Nuclear	23	57.5
	Joint	17	42.5
Religion	Hindu	40	100.0
Father's education	Primary	10	25.0
	Secondary	7	17.5
	Higher secondary	9	22.5
	Graduate or higher	14	35.0
Mother's education	Primary	18	45.0
	Secondary	9	22.5
	Higher secondary	5	12.5
	Graduate or higher	8	20.0
Monthly family income	—	6	15.0
	₹10,000–25,000	16	40.0
	₹25,001–50,000	9	22.5
	Above ₹50,000	9	22.5

Level of knowledge: The knowledge level of most adolescents (72.5%) was moderate. The percentage of people with inadequate knowledge was 20%, while only 7.5% had adequate knowledge (Table-2).

Table-2. Level of knowledge of adolescents (n = 40)

Level of knowledge	Score range	Frequency	Percentage
Inadequate	0–19	8	20.0
Moderate	20–31	29	72.5
Adequate	32–40	3	7.5

Knowledge scores: The mean score was 23.90 ± 6.16 out of 40, which is 59.75% (Table-3).

Table-3. Knowledge scores and reliability of the tool (n = 40)

Measure	Value
Maximum possible score	40
Mean $\pm$ SD	23.90 ± 6.16
Mean percentage	59.75%
Median	24
Range (lowest–highest)	8–34
KR-20 reliability	0.91

Reliability and feasibility:

The KR-20 test has a very high reliability score of 0.91. No changes were made and students received all the questions. The questionnaire was finished on time and no student said they felt upset.

DISCUSSION

This pilot study found that most of the adolescents had moderate knowledge of risks and strategies to avoid suicidal thoughts, with an average score of 59.75%. The results were mixed. Among 40 students, only 3 (7.5%) were able to acquire enough knowledge, while 8 (20%) weren't as clear. In essence, the majority of individuals have some basic knowledge, but lack adequate awareness of warning signs and risk factors, as well as how to handle a friend in distress.

Scores ranged from 8 to 34, so even adolescents of the same age and class can have very different experiences. The dissimilarity indicates the necessity for a curriculum that imparts uniform and correct information to all students. Evidence from other schools suggests that these programs can aid adolescents in gaining more knowledge and seeking assistance.^{6, 7}

The participants were nursing students, who might have some experience with health-related topics. Even so, 92.5% did not gain adequate knowledge. Adolescents in regular colleges and schools might have even less knowledge, and this will be the examined in the main study.

The tool had very good reliability, with a KR-20 score of 0.91, which is much higher than the accepted level of 0.70. The questions were easy to understand and the process went smoothly. These results proclaimed that the tool and methods are apt for the main study.¹²

CONCLUSION

While most adolescents had a moderate knowledge and understanding of risk factors and strategies to avoid suicidal ideation, very few had an adequate knowledge. The study was conducted successfully and the Structured Knowledge Questionnaire is reliable with a score of KR-20 = 0.91. In the main study on 400 adolescents, the tool was incorporated without any modifications.

IMPLICATIONS:

- Education on preventing suicide should be included in the routine curriculum of schools and other places where people are taught, such as nursing colleges.
- Nurses, teachers and counselors can use this tool to pinpoint areas where students may have inadequate knowledge.
- The key focus of awareness programs is to educate people about the signs to look for and how to help them in their friendship.

DECLARATIONS

Ethical approval: The study was approved by the Institutional Ethics Committee of Nirwan University in Jaipur. The Head of Ganpati Keshorai College of Nursing in Jaipur gave approval.

Consent: Written informed consent (and assent with parental consent for minors) was obtained. Participation was voluntary and responses were kept confidential.

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Conflict of interest: None declared.

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REFERENCES

1. World Health Organization. Suicide worldwide in 2021: global health estimates. World Health Organization; 2025 May 22.
2. Kanma-Okafor OJ. Adolescent Health: A Global Perspective. In: *Maternal and Child Health, Vol. 3: Global Challenges, Programs and Policies* 2026 Jul 28 (pp. 197-228). New York, NY: Springer US.
3. Jha A, Mishra AK. Silent Epidemics: A Decade-Long Investigation into Accidental and Suicide Deaths in India. *Journal of Comprehensive Health*. 2026 Aug 7;14.
4. Patel V, Ramasundarahettige C, Vijayakumar L, Thakur JS, Gajalakshmi V, Gururaj G, Suraweera W, Jha P. Suicide mortality in India: a nationally representative survey. *The Lancet*. 2012 Jun 23;379(9834):2343-51.
5. Singh OP. National suicide prevention strategy of India: Great leap forward in field of mental health. *Indian journal of psychiatry*. 2023 Jan 13;65(1):1.
6. Cusimano MD, Sameem M. The effectiveness of middle and high school-based suicide prevention programmes for adolescents: a systematic review. *Injury Prevention*. 2011 Feb;17(1):43-9.
7. Wasserman D, Hoven CW, Wasserman C, Wall M, Eisenberg R, Hadlaczky G, Kelleher I, Sarchiapone M, Apter A, Balazs J, Bobes J. School-based suicide prevention programmes: the SEYLE cluster-randomised, controlled trial. *The Lancet*. 2015 Apr 18;385(9977):1536-44.
8. Thabane L, Ma J, Chu R, Cheng J, Ismaila A, Rios LP, Robson R, Thabane M, Giangregorio L, Goldsmith CH. A tutorial on pilot studies: the what, why and how. *BMC medical research methodology*. 2010 Jan 6;10(1):1.
9. Hertzog MA. Considerations in determining sample size for pilot studies. *Research in nursing & health*. 2008 Apr;31(2):180-91.
10. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in nursing & health*. 2006 Oct;29(5):489-97.
11. Kuder GF, Richardson MW. The theory of the estimation of test reliability. *Psychometrika*. 1937 Sep;2(3):151-60.
12. Leon AC, Davis LL, Kraemer HC. The role and interpretation of pilot studies in clinical research. *Journal of psychiatric research*. 2011 May 1;45(5):626-9.
- 13.
14. MR Sahu, PA Loni, H Sharma, OP Swami. Innovative Approaches to Suicide Prevention Emerging Strategies and Future Directions. *Gfnpss Global Nursing Journal of India*, 2025.8(1); 779-782. https://scholar.google.com/citations?view_op=view_citation&hl=hi&user=2GqENO8AAAAJ&citation_for_view=2GqENO8AAAAJ:pS0ncopqnHgC
15. Samuel A, Singh CP, Venkatalakshmi, Chocha NV, Shukla D, Srivastava S. Mental Health Challenges in Modern Society: A Comprehensive Review of Stress, Depression, and Suicide Prevention. *Indian J Health Allied Sci*. 2026;1(2):35-39. View of Mental Health Challenges in Modern Society: A Comprehensive Review of Stress, Depression, and Suicide Prevention
16. Fagni, Kharati S, Tirkey SW, Tripathi N. Effectiveness of Suicide Prevention Education Among Students: An Original Research Study. *Indian J Health Allied Sci*. 2026;1(2):49-53. View of Effectiveness of Suicide Prevention Education Among Students: An Original Research Study
17. Singh K, Malav SK, Sharma S, Punithalakshmi K, Bijoy J, Jacob LK. Effectiveness of Educational Intervention on Suicide Prevention Awareness among College Students. *Indian J Health Allied Sci*. 2026;1(1):11-14. View of Effectiveness of Educational Intervention on Suicide Prevention Awareness among College Students

