

## A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Risk Factors and Prevention of Suicide among the Adolescents Studying in Selected College

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### Abstract

**Background of study:** According to the WHO, more than 800,000 people die by suicide a year, making it the principal cause of death among people 15–29 years old. An annual global age-standardized suicide rate of 11.4 per 100 000 populations in which 15.0 are males and 8.0 are females. **Objectives of the study:** To assess the levels of knowledge regarding risk factors and prevention of suicide among the adolescents. To evaluate the effectiveness of structured teaching programme on knowledge regarding risk factors and prevention of suicide among adolescents. To find significant association between the pre-test knowledge score with selected socio-demographic variables. **Methodology:** One group pre-test and post-test design was used for this study. The independent variable in this study is planned teaching programme on knowledge regarding risk factors and prevention of suicide among adolescents. The study was conducted at selected college at Solapur. Sample includes 60 adolescents who fulfil the inclusion criteria were selected by non-probability purposive sampling technique. **Result:** The pre-test mean score is  $13.41 \pm 2.64$  which is 31.92% and post-test mean score is  $17.58 \pm 3.08$  which is 73.25% with a difference of 41.33%. The paired 't' test value is 7.35 which is significantly higher than the table value of 2.0009 at  $p \leq 0.05$  level. Thus the structured teaching programme is effective in improving the knowledge regarding Risk factors and Prevention of suicide among Adolescents. There was no significant association found between the knowledge regarding Risk factors and Preventive measures of suicidal behavior among adolescents with their age, gender, and type of family, history of suicide or suicidal attempt, history of mental illness, history of substance abuse and source of information but there is significant association with area of residence at  $p \leq 0.05$  level. **Conclusion:** This study intervention would help the adolescent to run healthy life without any distress, reduce the risk of suicidal behavior and also encourage them also to help those who have suicidal risk in the public or among friends.

**Keywords:** Structured Teaching Programme; Prevention of Suicide.

### Introduction

Worldwide suicide is the second leading cause of death following motor vehicle accidents among teenagers and young adults. On average, adolescents aged 16–19 years have a per year suicide rate of about 1 in 10,000 people. Among them up to 10% of boys and 20% of girls die because of suicide.<sup>1</sup>

Approximately 0.5% to 1.4% of people die by suicide, a mortality rate of 11.6 per 100,000 persons every year. 800 000 people die due to suicide per year, which is 1 person in 40 seconds. In which 16–19 age group ratio is 52,060 which includes 27,060 are female and 25,000 are male.<sup>2</sup>

India has one of the world's highest suicide rates for youth aged from 15 to 29, according to Lancet 2011(7,696), 2012(6,654), 2013(8,423), 2014(8,068), 2015(8,934) and 2016(9,474). Student suicides in the India have increased 17%–52% every day (6,248) in 2007 and 26% every day (9474) in 2016. In between 2007–2016

around 75,000 students committed suicides in India. The statistic shows that reported the most - 1,350 - student suicides in 2016, which is 4 every day, followed by West Bengal (1,147) and Tamil Nadu (981). Kokan student suicide reported in 2016 is 420 in that Ratnagiri around 107.<sup>3</sup>

On April 3<sup>rd</sup>, 2017, a student committed suicide by jumping out of a 19th-floor hotel room in Mumbai. According to media reporting he had been depressed about failure in examination and repeatedly talked about ending his life on social media.

According to the American Foundation for Suicide Prevention, it is important to learn the warning signs of adolescent's suicide in order to prevent an attempt. Maintaining open communication with them and their friends provides an opportunity for helping as needed. If a teen is talking about suicide, he or she must receive an immediate evaluation.<sup>4</sup>

A retrospective study was conducted on trends in rate and methods of suicide in India in September 2013. The objective of this study was to evaluating suicide case in Lucknow which emphasis on the method of suicide as per the gender wise. There were 5204 samples was taken in which 2946 are male and 2258 are female although data was collected by using case sheet. The final result was the rate for males was 56.61% and for females was 43.38%. It shown that poisoning is the most common method of suicide in male (31%) as well as in female (48%).<sup>5</sup>

## Objectives

- To assess the levels of knowledge regarding risk factors and prevention of suicide among the adolescents.
- To evaluate the effectiveness of structured teaching programme on knowledge regarding risk factors and prevention of suicide among adolescents.
- To find significant association between the pre-test knowledge score with selected socio-demographic variables.

## Hypothesis

**H<sub>0</sub>:** There is no significant difference between pre-test knowledge scores and post-test knowledge scores regarding risk factors and prevention of suicide among the adolescents.

**H<sub>1</sub>:** There is significant difference between pre-test knowledge scores and post-test knowledge scores regarding risk factors and prevention of suicidal behavior among the adolescents.

**H<sub>2</sub>:** There is significant association between pre-test knowledge scores with selected socio-demographic variables of adolescents.

## Limitations

- The study will be limited to adolescence in higher secondary college.
- The study is limited to 60 samples.
- The data collection period is 4 weeks.

## Research Methodology

**Research Approach:** The quantitative research approach was adopted in this study.

**Research Design:** The research design chosen for this study was Pre experimental (One group pre-test post-test design) research design.

**Research Setting:** The research setting selected for the present study were selected colleges.

**Sample:** The samples comprised of the Adolescents between 16-19 years and who fulfilled the inclusion criteria.

**Sampling Technique:** Non probability purposive sampling technique was been used for the present study.

**Sample Size:** The sample size was 60 adolescents.

## Eligibility Criteria

### Inclusion criteria

- Adolescents who are in age group of 16years - 19 years.
- Adolescents who are present on the day of study.

### Exclusion criteria

- Adolescents who are not willing to participate in this study.

## Variables

**Dependent variables:** Knowledge of adolescents regarding risk factors and prevention of suicide.

**Independent variables:** Planned teaching programme on knowledge regarding risk factors and preventive factors for suicidal behavior.

## Socio-demographic variables

The socio-demographic variables in this study were as age, gender, type of family, area of residence, history of suicide or suicide attempt, history of mental illness, history of substance abuse and source of information regarding risk factors and prevention of suicide.

**Description of the tool:** It consist of three section

### Section I: socio-demographic data

The socio-demographic variables in this study were as age, gender, type of family, area of residence, history of suicide or suicide attempt, history of mental illness, history of substance abuse and source of information regarding risk factors and prevention of suicide.

**Section II:** Structured knowledge questionnaire to assess the knowledge regarding risk factors and prevention of suicide.

The Structured self-administered questionnaire was used to assess the knowledge. The questions were under the subheadings related to general information, risk factors and warning signs of suicide and prevention of suicide. There were 24 questions where each correct answer was given the score of 1 and each wrong answer was given the score of 0.

**Section III:** Structured teaching programme on risk factors and prevention of suicidal behavior.

Structured teaching programme includes definition of suicidal behavior, risk factors, warning signs of suicide, preventive measures of suicide and suicidal awareness.

## Plan for Data Analysis

**Descriptive statistics:** Frequency, percentage and measures of central tendency (Mean, median and standard deviation).

**Inferential statistics:** Paired t-test and Chi square ( $\chi^2$ ).

## Results

**Table 1:** Distribution of respondents based on the socio-demographic variables.

Socio-demographic variables	N = 60	
	N	%
<b>Age (in years)</b>		
16 - 17	39	65
18 - 19	21	35
<b>Gender</b>		
Male	24	40
Female	36	60
<b>Type of family</b>		
Joint	23	38.33
Nuclear	37	61.66
<b>Area of residence</b>		
With own family	34	56.66
With other's family	14	23.33
In hostel	12	20
Living alone	0	0
<b>History of suicide or suicidal attempt in your family</b>		
Yes	4	6.66
No	56	93.33
<b>History of mental illness in your family</b>		
Yes	8	13.33

Socio-demographic variables	N	%
No	52	86.66
<b>History of substance abuse in your family</b>		
Yes	25	41.66
b. No	35	58.33
<b>Source of information regarding risk factors and prevention of suicide</b>		
TV/Radio	21	35
Newspaper/Magazines/Books/Journals	32	53.33
Parents/Relatives/Friends/Neighbours	2	3.33
Information from health personnel	5	8.33

Table 1 shows that 39 (65%) samples are in the age group of 16 – 17 years and 21 (35%) are in the 18 – 19 years. Pertaining to the gender 24 (40%) are males and 36 (60%) are females. Concerning to the type of family 23 (38.33%) are from joint family and 37 (61.66%) are from nuclear family. Related to area of residence 34 (56.66%) are residing with their own family, 14 (23.33%) are residing with other’s family, 12 (20%) are residing in hostel and no one is living alone. As per the history aspect first is history of suicide or suicidal attempt in family there is 4 (6.66%) yes and 56 (93.33%) no, second is history of mental illness in family for that 8 (13.33%) yes and 52 (86.66%) no and third is history of substance abuse in family 25(41.66%) yes and 35 (58.33%) no. Related to source of information regarding risk factors and prevention of suicide for that 21 (35%) are TV/Radio, 32 (53.33%) are Newspaper/Magazines/Books/Journals, 2 (3.33%) are Parents/Relatives/Friends/Neighbours and 5(8.33%) are Information from health personnel.

**Table 2:** Distribution of adolescents according to samples pre-test score.

Level of knowledge	N = 60			
	Pre test		Post test	
	F	Percentage	F	Percentage
Poor (0-12)	23	38.33%	5	8.33%
Average (13-18)	37	61.66%	32	53.33%
Good (19-24)	0	0.00%	23	38.33%

The above table shows that during pre-test, the adolescents scoring 23 (38.33%) have poor knowledge, 37 (61.66%) adolescents have average knowledge and none of them have good knowledge regarding Risk factors and prevention of suicide. Where as in the posttest 23 (38.33%) adolescents have good knowledge, 32 (53.33%) adolescents have average knowledge and 5 (8.33%) adolescents have poor knowledge regarding Risk factors and Preventive measures of Suicidal behaviour.

**Table 3:** Mean, standard deviation, paired ‘t’ test value of effectiveness of planned teaching programme on risk factors and prevention of suicide.

knowledge	Mean	S.D.	N = 60		
			Calculated ‘t’ Value	DF	Table ‘t’ value
Pre test	13.41	2.64	7.35	59	2.0009
Post test	17.58	3.08			

Significant at  $p \leq 0.05$  level

The above table 6 shows that the mean score during pre-test is  $13.41 \pm 2.64$ , and the mean score during post-test is  $17.58 \pm 3.08$ . The paired ‘t’ test value is 7.35 which is significantly higher than the table value of 2.0009 at  $p \leq 0.05$  level.

Which shows that,  $t(cal.) > t(tab.)$  i.e.  $7.35 > 2.0009$ ,  $df = 59$

The above table 7 shows the calculated chi-square value to test the association between the level of knowledge with selected socio-demographic variables. It indicates that there was a

significant association between the level of knowledge and the selected socio-demographic variable such as area of residence ( $\chi^2=10.69$ ) whereas there was no association between the level of knowledge and the selected socio-demographic variables such as age ( $\chi^2=3.43$ ), gender ( $\chi^2=2.33$ ), type of family ( $\chi^2=0.62$ ), history of suicide or suicidal attempt in your family ( $\chi^2=0.3$ ), history of mental illness in your family ( $\chi^2=0.003$ ), history of substance abuse in your family ( $\chi^2=0.19$ ), source of information regarding risk factors and preventive factors for suicidal behavior ( $\chi^2=2.15$ ) at  $p < 0.05$  level of significance. Thus it shows that there was a significant association between the level of knowledge and the selected socio-demographic variables. Hence the hypothesis H1 was accepted.

**Table 4:** Chi-square test on pre-test knowledge regarding Risk factors and Preventive measures of Suicidal Behavior among Adolescents with their selected socio-demographic Variables.

Socio-demographic variables	N	%	$\leq 14$	$> 14$	N = 60
					$\chi^2$ calculated value
<b>Age in years</b>					
16 – 17	39	65	28	11	3.43, $df=1$ , $p < 0.05$ , NS
18 – 19	21	35	10	11	
<b>Gender</b>					
Male	24	40	18	6	2.33, $df=1$ , $p < 0.05$ , NS
Female	36	60	20	16	
<b>Type of family</b>					
Joint	23	38.33	16	7	0.62, $df=1$ , $p < 0.05$ , NS
Nuclear	37	61.66	22	15	
<b>Area of residence</b>					
With own family	34	56.66	22	10	10.69, $df=3$ , $p < 0.05$ , NS
With other's family	14	23.33	12	2	
In hostel	12	20	4	10	
Living alone	0	0	0	0	
<b>History of suicide or suicidal attempt in your family</b>					
Yes	4	6.66	3	1	0.3, $df=1$ , $p < 0.05$ , NS,
No	56	93.33	35	21	
<b>History of mental illness in your family</b>					
Yes	8	13.33	5	3	0.003, $df=1$ , $p < 0.05$
No	52	86.66	33	19	
<b>History of substance abuse in your family</b>					
Yes	25	41.66	15	10	0.19, $df=1$ , $p < 0.05$
No	35	58.33	23	12	
<b>Source of information regarding risk factors and prevention of suicide</b>					
TV/Radio	21	35	12	10	2.15, $df=1$ , $p < 0.05$
Newspaper/Magazines /Books/Journal	32	53.33	21	10	
Parents/Relatives/Friends/Neighbors	2	3.33	2	0	
Information from health personnel	5	8.33	3	2	

Significant at  $p \leq 0.05$  level, NS – No significant, SA – Significant association.

**Recommendations**

- Similar study can be conducted as comparative study between male and female adolescents in different settings.
- Similar study can be conducted for various age groups.

- Similar study can be done by using various teaching methods.
- Similar study can be conducted after identifying suicidal ideation for the adolescents.
- A similar study can be conducted in different populations such as professional and nonprofessional students and workers.
- The study can be carried out to assess the quality of life among the adolescents.

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