A study to assess the effectiveness of structured teaching programme on suicide prevention among adolescents at selected higher secondary schools in Krishna District, Andhra Pradesh

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Abstract
India today has a largest population of adolescents in the world. The future of India is shaped by this generation. Suicide is the third leading cause of death among 15 to 25 years old age group. Suicide is one of the crudest expressions of social phenomenon and is the act of deliberately ending one’s own life. Suicide is a preventable cause of death, it becomes vital to strengthen ongoing efforts to implement effective suicide interventions. Early identification and effective management of suicidal ideation and behavior are paramount to saving lives. The objective of this study is to assess the effectiveness of structured teaching programme on suicide prevention among adolescents in selected higher secondary schools in Krishna District, Andhra Pradesh. Systematic random sampling method was adapted to select sample of 250 adolescents. The data collection was done through self administered structured knowledge questionnaire. Data obtained was tabulated and analyzed in terms of objectives of the study using descriptive and inferential statistics. The data showed that in pre-test, majority 199(79.6%) had inadequate knowledge, 49(19.6%) had moderate knowledge and 2(0.8%) had adequate knowledge with mean score value 5.0960. After STP, 4(1.6%) had inadequate knowledge, 61(24.4%) had moderate knowledge and majority 185(74.0%) had adequate knowledge. There was significant gain in knowledge on suicide prevention at p< 0.001 level. There was statistically significant association with their demographic variables such as gender, geographical background, education of father, medium of education, father’s occupation, mother’s occupation, class of study, have you heard about suicide and its prevention and if ‘yes’ what is the source of the information.

Keywords: Effectiveness, structured teaching programme, suicide prevention, adolescents

Introduction
The word ‘suicide’ has its origin in Latin, ‘sui’, of one self and ‘caedere’, to kill; the act of intentionally destroying one’s life. This word “suicide” was first used by Sir Thomas Browne an English Physician and philosopher in 1642 in his book “Releglo Media”. Brent, Bridge, Johnson et al. (1996) Stated that Suicidal ideation among adolescents have a unique etiology because of developmental transitions that occur in adolescents including changes in family relationships, peer contexts and increased opportunities for alcohol and drug use. Moreover, studies suggest that suicidal behavior is associated with depression and impulsive aggression [1]. The times of India on July 17th, 2017, published “Approximately half of India’s 1.2 billion people are under the age of 26years, and by 2020 we are forecast to be the youngest country in the world with a medium age of 29years. Unfortunately, India has the highest suicide rate in the world among the youth standing at 3.5-5 per 100,000 people. The reason for such high number can be attributed to lack of economic, social and emotional resources. More specifically, academic pressures, work place stress, social pressures, modernization of urban centers, relationship concerns, and the breakdown of support systems” [2]. The National strategy for suicide prevention (NSSP) expands the paradigm for suicide prevention by including a strategic direction aimed at promoting the general health of broad population to reduce the risk for suicidal behaviors and related problems such as substance abuse, depression, etc.
Significance of the study
In 2015, as per the records of NCRB, Maharashtra reported most student suicides of state 1230 of 8934(14%) nationwide, followed by Tamil Nadu (953) and Chattisgarh (625). Sikkim was the state with India’s highest suicide rate during the year 2016 offered a future warning for India. Vasu deevan mukath (2014) have stated that India’s youth suicide rate is among world’s highest between 30 to 40 people per 1,00,000 Indians aged 15 to 29 years kill themselves. National crime records bureau (NCRB) 2012, Government of India published a report stating “The southern states of Kerala (24.3), Karnataka (17.0), Andhra Pradesh (16.6) and Tamil Nadu (24.9) suicide rate (per 1 lakh) population along with Eastern state of West Bengal, Tripura and Mizoram have a suicide rate of greater than 16 per 100,000 people” [3]. Melia R et al., (2020) conducted a systemic review to examine the effectiveness of currently available mobile health technology tools in reducing suicide specific outcome. Data base such as Cochrane central register of controlled trails (The Cochrane Library), MEDLINE, EMBASE, PSYC INFO and relevant sources of grey matter were evaluated for effectiveness of mobile health technology in suicide prevention. A total of two review authors independently extracted and assessed study suitability in accordance with the Cochrane collaboration risk of bias tool, on July, 31, 2018. Results showed that a total of 7 studies met criteria for inclusion from published articles reported on the effectiveness of the following mobile phone apps and demonstrated positive impacts for individuals at elevated risk of suicide or self harm, including reduction in depression, psychological distress and increase in coping self efficacy [4]. Jayesh Patidar and Satish Kumar Darji (2019) conducted a study to assess the effectiveness of structured teaching programme on the preventive measures of suicidal ideation among the adolescents in selected higher secondary schools of Meshan District. Data was gathered from 100 adolescents with a self structured knowledge questionnaire to assess the level of knowledge in pre test and knowledge was assessed after imparting structured teaching programme. Results showed that the post test knowledge and SD score (16.74± 4.41) was higher than the mean pre test knowledge score (12.16± 4.16). The calculated ‘t’ value (42.64) was greater than the table value (1.98) at 0.05 level of significance. The study concluded that the structured teaching programme was effective in increasing the knowledge of preventive measures of suicidal ideation among adolescents [5].

Rita Moni Sharma and Taralata Kakati Majhi (2019) conducted a Quasi experimental study to assess the risk factors of suicide among adolescents and evaluate the knowledge on suicide prevention in selected colleges of Goalpana District, Assam. Research design was pre test - post test and control group design. A sample of 80 students, 40 in each experiment and control group within age group of 16-19 years were selected and administered structured questionnaire consisting three parts related to socio demographic data, risk factors of suicide and knowledge on suicide prevention. Structured teaching was conducted to experimental group. Data was analyzed and the results showed significant differences (‘t’= 14.607, P=0.000) between control and experimental group in the post test knowledge on suicide prevention. The overall post test knowledge seen on suicide prevention showed that majority of respondents acquired good knowledge in experimental group. The study concluded that adolescent suicide can be prevented by increasing knowledge, awareness and developing positive attitude [6].

Rose Mc cabe et al., (2018) conducted a systematic review to evaluate the effects of interventions preventing self harm and suicide in children and adolescents. The methodological quality of the included reviews was assessed independently and the data was extracted by two reviewers. The certainty of evidence was assessed using Grading of Recommendation Assessment, Development and Evaluation (GRADE). Results showed that moderate certainty evidence suggested that school based interventions prevent suicidal ideation and attempts short term and possibly suicidal attempts long term. The study concluded that there was also need for more research on treatment of repeated self harm and in prevention of self harm and suicide in children and adolescents [7].

Statement of problem
A Study to Assess The Effectiveness of Structured Teaching Programme on Suicide Prevention Among Adolescents At Selected Higher Secondary Schools In Krishna District, Andhra Pradesh.

Objectives of the study
1. To assess the knowledge on suicide prevention among adolescents.
2. To determine the effectiveness of structured teaching programme on suicidal prevention.
3. To find out the association between post-test knowledge scores of adolescents on suicide prevention and their selected demographic variables.

Hypothesis
At 0.05 level of significance.

H1: The mean post test knowledge scores of adolescents on suicide prevention will be significantly higher than mean pre-test knowledge scores.

H2: There will be a significant association between the post-test knowledge scores of adolescents regarding suicide prevention and their selected socio-demographic variables.

Assumptions
The study assumes that:
1. The adolescents have little knowledge regarding suicide prevention.
2. Structured teaching programme will increase the knowledge on suicide prevention.

Delimitations
- The study was limited to only adolescents studying in selected Higher Secondary Schools, Krishna District, Andhra Pradesh
- Study was delimited to Knowledge on prevention of suicide only.

Methodology
Research Approach and Design
The research approach was quantitative approach with Quasi experimental- one group pre-test post-test design.
Variables
Dependent Variable: Knowledge on suicide prevention
Independent Variable: Adolescents.
Associate Variables: Selected demographic variables.

Research Setting
The study was conducted at selected Higher Secondary Schools, Krishna District, Andhra Pradesh.

Population
The population chosen for this study was adolescents studying in selected Higher Secondary Schools, Krishna District, Andhra Pradesh.

Sample
The sample consisted of 250 adolescents

Sampling Technique
Systematic Random sampling Technique was adopted to select the samples.

Development and Description of the tool:
Tool consisted of two parts:
Part I: Self administered structured questionnaire on socio demographic data
Part II: Self administered structured questionnaire on suicide prevention

Part I: The Socio demographic variables of the study are age, gender, religion, geographical background, education of father and mother, occupation of father and mother, family type, family income per month, medium of education, present residing place, class of study, awareness and source of information on suicide prevention.
Part II: Self administered structured questionnaire with 30 items to elicit knowledge on suicide prevention.

Scoring key was prepared for part I by coding the socio demographic variables. In part II the structured questionnaire consists of 30 multiple choice questions with four alternative choices to assess the knowledge on suicide prevention. Among the four alternatives choices, one choice is right. The correct response was given the score of one (1). No mark (0) was awarded for the wrong response, totaling to maximum 30 marks and minimum score 0.

To interpret the level of knowledge the score was classified as
Inadequate knowledge < 50%
Moderately adequate knowledge 51-75%
Adequate knowledge >75%
The content validity and reliability of the tool was established by test retest method.

Results
The collected data was analyzed by using descriptive and inferential statistics and the results were interpreted under the following headings.

Section A: Findings related to analysis of demographic variables of adolescents.
Section B: Comparison of pre-test and post test scores on suicide prevention among adolescents
Section C: Distribution of mean, standard deviation and paired-t value of pre-test and post test scores on suicide prevention
Section D: Association of demographic variables of adolescents and post-test level of knowledge on prevention of suicide.

Section A: Findings related to analysis of demographic variables of Adolescents.

Table 1: Frequency and Percentage distribution of demographic variables of Adolescents

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic Variables</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age in Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. 16</td>
<td>70</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>b. 17</td>
<td>140</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>c. 18</td>
<td>31</td>
<td>12.4</td>
</tr>
<tr>
<td></td>
<td>d. 19</td>
<td>9</td>
<td>3.6</td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Male</td>
<td>65</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>b. Female</td>
<td>185</td>
<td>74</td>
</tr>
<tr>
<td>3.</td>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Hindu</td>
<td>149</td>
<td>59.6</td>
</tr>
<tr>
<td></td>
<td>b. Muslim</td>
<td>23</td>
<td>9.2</td>
</tr>
<tr>
<td></td>
<td>c. Christian</td>
<td>76</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>d. Others</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>4.</td>
<td>Geographical back ground</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Urban</td>
<td>23</td>
<td>9.2</td>
</tr>
<tr>
<td></td>
<td>b. Semi urban</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>c. Rural</td>
<td>127</td>
<td>50.8</td>
</tr>
<tr>
<td>5.</td>
<td>Family income in rupees per month</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. &lt; 5000/-</td>
<td>130</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>b. 5001-10,000/-</td>
<td>68</td>
<td>27.2</td>
</tr>
<tr>
<td></td>
<td>c. 10,001-15,000/-</td>
<td>27</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>d. 15,001-20,000/-</td>
<td>12</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>e. Above 20,000/-</td>
<td>13</td>
<td>5.2</td>
</tr>
<tr>
<td>6.</td>
<td>Education of Father</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Illiterate</td>
<td>92</td>
<td>36.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>----------------</td>
<td>----------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>b. Primary School</td>
<td>97</td>
<td>38.8</td>
<td></td>
</tr>
<tr>
<td>c. High School</td>
<td>28</td>
<td>11.2</td>
<td></td>
</tr>
<tr>
<td>b. Graduate and above</td>
<td>33</td>
<td>13.2</td>
<td></td>
</tr>
</tbody>
</table>

7. **Education of Mother**
   a. Illiterate   | 99  | 39.6  |
   b. Primary School | 111 | 44.4  |
   c. High School   | 26  | 10.4  |
   d. Graduate and above | 14    | 5.6  |

8. **Medium of Education**
   a. English   | 153  | 61.2 |
   b. Telugu   | 97  | 38.8 |

9. **Father’s Occupation**
   a. Unemployed | 17  | 6.8  |
   b. Laborer   | 155  | 62  |
   c. Private employee | 29 | 11.6 |
   d. Government employee | 9 | 3.6 |
   e. Business  | 40  | 16  |

10. **Class of study**
    a. Junior Intermediate | 97 | 38.8 |
    b. Senior Intermediate | 153 | 61.2 |

11. **Mother’s Occupation**
    f. Home Maker | 117 | 46.8 |
    g. Laborer   | 106  | 42.4 |
    h. Private employee | 15 | 6  |
    i. Government employee | 4 | 1.6 |
    j. Business  | 8  | 3.2 |

12. **Type of family**
    a. Nuclear   | 184  | 73.6 |
    b. Joint    | 60  | 24  |
    c. Extended | 6  | 2.4 |

13. **You are presently residing**
    a. Alone | 8  | 3.2 |
    b. In hostel | 34  | 13.6 |
    c. With parents | 204 | 81.6 |
    d. With relatives | 4  | 1.6 |

14. **Have you heard about suicide and its prevention**
    a. Yes | 101 | 40.4 |
    b. No | 149 | 59.6 |

15. **If ‘Yes’ What is the source of the information**
    a. Not heard | 149 | 59.6 |
    b. Mass Media | 50 | 20  |
    c. Health Professional | 5  | 2  |
    d. Friends & Relatives | 33 | 13.2 |
    e. Others | 13  | 5.2 |

**Section B:** - Comparison of pre-test and post test scores on suicide prevention among adolescents

![Comparison of pre-test and post test scores on suicide prevention among adolescents](image)

**Fig 1:** Percentage distribution of adolescents according to level of knowledge on prevention of suicide in pre-test and post-test

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In pre-test, scores showed that majority (199, 79.6%) had inadequate knowledge, 49 (19.6%) had moderate knowledge and 2 (0.8%) had adequate knowledge. In post-test, 4 (1.6%) had inadequate knowledge, 61 (24.4%) had moderate knowledge and majority 185 (74.0%) had adequate knowledge.

Section C: Distribution of pre and post-test mean, standard deviation and paired ‘t’ value of pre-test and post test scores on suicide prevention.

Table 2: Mean, SD and paired ‘t’ value of pre-test and post-test scores on suicide prevention

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>'t' Value</th>
<th>P- Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>13.0240</td>
<td>3.72544</td>
<td>37.748</td>
<td>.000</td>
</tr>
<tr>
<td>Post-test</td>
<td>24.0440</td>
<td>3.13582</td>
<td>Df=249</td>
<td></td>
</tr>
</tbody>
</table>

The table 2 depicts higher post-test mean score value 24.0440 than the pre-test mean score value 13.0240. The computed ‘t’ value 37.748 is highly significant at P < 0.001 level. This indicates the effectiveness of the structured teaching programme on suicide prevention. Hence research hypothesis 1 was accepted.

Section D: Association between the demographic variables of adolescents and post-test level of knowledge on prevention of suicide.

There was statistically significant association (p< 0.05) between the gender, geographical background, education of father, medium of education, mother’s occupation, class of study, father’s occupation, have you heard about suicide and its prevention and if ‘yes’ what is the source of information and post-test level of knowledge on prevention of suicide.

Conclusion
1. The findings of the study revealed that majority of adolescents 199 (79.6%) had inadequate knowledge, 49 (19.6%) had moderate knowledge and 2 (0.8%) had adequate knowledge on suicide prevention in pre-test and in post-test, 4 (1.6%) had inadequate knowledge, 61 (24.4%) had moderate knowledge and majority 185 (74.0%) had adequate knowledge. The above findings show that structured teaching programme on suicide prevention was highly effective.

2. There was significant association between the demographic variables and post-test level of knowledge on suicide prevention.

Recommendations
The following recommendations were made based on the results of the study.

1. A study can be conducted to various age groups, non nursing professionals, nursing students, employees in different settings.
2. A similar study can be conducted to on larger samples in other districts.
3. A comparative study can be conducted among Government and Private Nursing Institutions.

References