



Effectiveness of structured teaching programme on knowledge regarding prevention of adolescent mental health problems: Original research article

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Abstract

Background: Mental health is an integral part of overall health. Adolescence is a vulnerable period for mental health problems. About 10–20% of children and adolescents have a mental health problem of some type and this will adversely affect scholastic and overall development.

Objectives: Objectives of the study are to assess the pre and posttest knowledge of school students in selected schools at Gonda, also, to assess the effectiveness of structured teaching program from pretest and posttest. In addition to know the association of pretest knowledge with their socio-demographic data.

Materials and methods: A structured knowledge questionnaire regarding prevention of adolescent mental health problems among the students was used to collect data. A total of 50 students were selected by simple random sampling method. The data collected was analyzed and interpreted based on descriptive and inferential statistics.

Results: The assessment of knowledge level of adults regarding effects of alcoholism revealed In pretest 36.0 % had poor 64.0 % had average good where as in posttest none of them have poor knowledge 10.0 % showed average 86.0 % of them with good and 4 % were excellent knowledge level on prevention of adolescent mental health problems. In post-test 10% of students had average knowledge, 86% of students had good knowledge and 4% of students had excellent knowledge regarding prevention of adolescent mental health problems.

Conclusion: The findings of the study suggest that the students had little knowledge on prevention of adolescent mental health problems and that increased after the structured teaching program.

Keywords: prevention of adolescent mental health problems, prevention of mental disorders among students, school mental health programme

Introduction

The mental disorders which are not recognized or addressed in childhood and adolescence may turn in to severe mental health problems as the person grows up. A positive mental health is essential for people to realize their full potential, cope with stresses of life, work productively and to make meaningful contribution to their communities ^[1]. During adolescence, multiple physical, emotional and social changes occur which can make adolescents vulnerable to mental health problems. Promoting psychological well-being and protecting adolescents from risk factors may strengthen them to overcome those challenges which promote their physical and mental health in adulthood ^[2].

The disorders such as hyperkinetic disorder, learning disorders such as dyscalculia and dyslexia and depression are some common problems affecting both children and adolescents. The risk of developing mental health problem can be reduced by bringing changes in the school environment and by the implementation of school mental health programs ^[2]. Mental health problems affect 10-20% of children and adolescents worldwide. In most of the places, the mental health needs of children and adolescents are neglected. Early intervention can help reduce the significant impacts that children and adolescents with serious mental health problems may experience ^[3]. It is estimated that about 62,000 adolescents died in 2016 as a result of self-harm. Suicide is the third leading cause of

death in older adolescents (15–19 years). Risk factors for suicide are multifaceted, including harmful use of alcohol, abuse in childhood, stigma against help-seeking, barriers to accessing care, and access to means ^[2]. In the United States, 22% of teenagers have experienced a mental illness, and nearly half of all lifetime mental illness starts by age 14. But only 50% of youth with a mental health disorder only receive treatment. The prevention strategies have significant role in reducing the burden of mental illness on children and adolescents, their families, and society ^[4]. One in four people in the world will be affected by mental or neurological disorder at some point in their lives. Around 450 million people currently suffers from such conditions, placing mental disorders among the leading causes of ill health and disability worldwide ^[5]. The goal of mental disorder prevention is the reduction of symptoms and ultimately of the mental disorder ^[6]. Mental health problems have become a significant reason for distress among the adolescents ^[7]. Mental health promotion and prevention are at the core of a public health approach to children and youth mental health which addresses the mental health of all children, focusing on the balance of optimizing positive mental health as well as preventing and treating mental health problems ^[8].

Methodology

A quantitative - evaluative approach was considered most

suitable for the study. A quasi-experimental one group pre-test post-test design was used to assess the effectiveness of structured teaching programme.

Table 1: Schematic representation of the research design

Group	Pre test	Intervention	Post test
Adolescents in a school	Structured questionnaire schedule	Structured teaching programme	Structured questionnaire schedule

Variables

The independent variable is the structured teaching programme on knowledge regarding prevention of adolescent mental health problems. The dependent variable is the student’s knowledge regarding prevention of adolescent mental health problems.

Setting of the study

The study was conducted in Jan Nayak Intercollege, Baksriya Grant Gonda, Uttar Pradesh.

Samples

In this study the samples are the selected higher secondary students in a selected school at Gonda, Uttar Pradesh. The total sample size for the present study is 50. The samples were selected by using simple random sampling technique.

Tool

A structured Knowledge questionnaire was used to collect data for this study. The tool has 2 sections. They are;

Section A – Socio-Demographic Data

It consists of demographic variables like age, gender, level of study, religion, area of residence, type of family, monthly income of the family, education of father, occupation of father, previous knowledge regarding prevention of mental disorders.

Section B – Knowledge questionnaire on prevention of adolescent mental health.

It is a structured tool to assess the level of knowledge regarding the prevention of adolescent mental health. This comprised of 30 questions which has four options. Among four one is the correct response scored as 1 and incorrect response scored as 0.

Data analysis

Data collected was analyzed by using descriptive and inferential statistics

▪ **Descriptive statistics**

Mean, standard deviation and mean percentage was used to assess the level of knowledge regarding effects of alcoholism in rural adults.

▪ **Inferential statistics**

Paired t test was used to compare the pre-test and posttest. Chi -square test was used to find out the association between the post test scores of Knowledge of students with their selected demographic variables

Results

The data were coded and analysed as per objectives of the study under the following sections.

Section A: Description of samples according to their demographic characteristics.

Section B: Frequency and percentage distribution of pre & post test scores on knowledge.

Section C: Mean, SD, and Mean percentage and Paired “t” test value of pre and post test scores.

Section D: Chi -square value of association between the posttest Knowledge scores of students and their selected demographic variables.

Section A: Description of samples according to their demographic characteristics.

Table 2: Distribution of respondents according to their socio-demographic characteristics N=50

SL. NO	Demographic variables	Experimental group	
		Frequency	Percentage
1	Age		
	a) 14-15 Years	14	28%
	b) 16-17 Years	25	50%
	c) 18 Years and above	11	22%
2	Gender		
	a) Female	22	44%
	b) Male	28	56%
3	Level of study		
	a) Class XI	30	60%
	b) Class XII	20	40%
4	Religion		
	a) Hindu	24	48%
	b) Muslim	14	28%
	c) Other	12	24%
5	Area of residence		
	a) Urban	12	24%
	b) Rural	13	26%
	c) Semi-urban	20	40%
6	Type of family		
	a) Nuclear family	21	42%
	b) Joint family	29	58%
7	Monthly income of the family		
	a) Less than Rs .15,000	12	24%
	b) Rs. 15,001 – 25,000	13	26%
	c) Rs 25,001 – 50,000	16	32%

	d) Rs 50,001 and above	9	18%
8	Education of father		
	a) Illiterate	14	28%
	b) Primary	11	22%
	c) Secondary	8	16%
	d) Graduate and above	17	34%
9	Occupation of father		
	a) Professional	10	20%
	b) Skilled/Unskilled labor	20	40%
	c) Self-employed	9	18%
	d) Unemployed	11	22%
10	Main Source of previous knowledge		
	a) Friends	19	38%
	b) Mass Media	16	32%
	c) Health professionals	15	30%

Section B: Frequency and percentage distribution of pre & post test knowledge scores of students

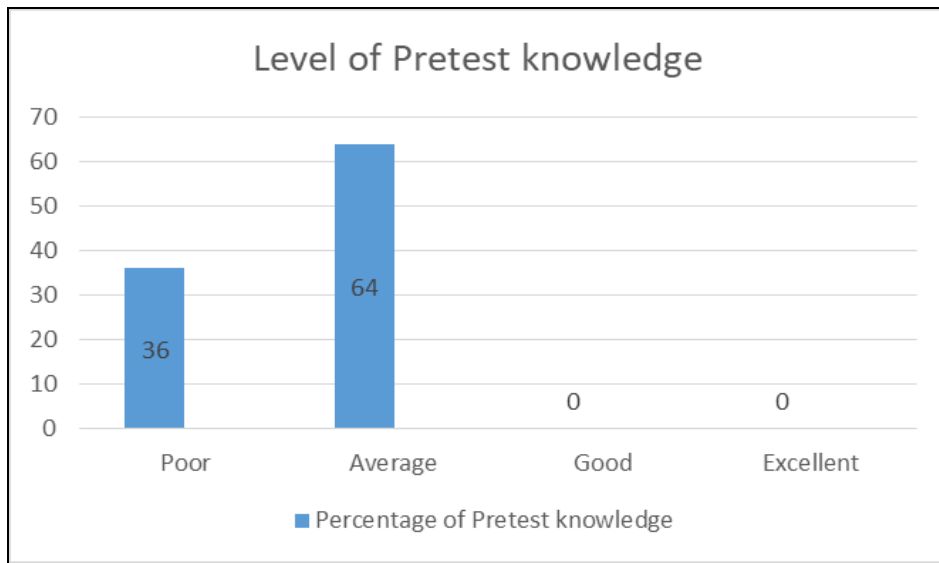


Fig 1: Frequency and percentage distribution of pretest knowledge scores

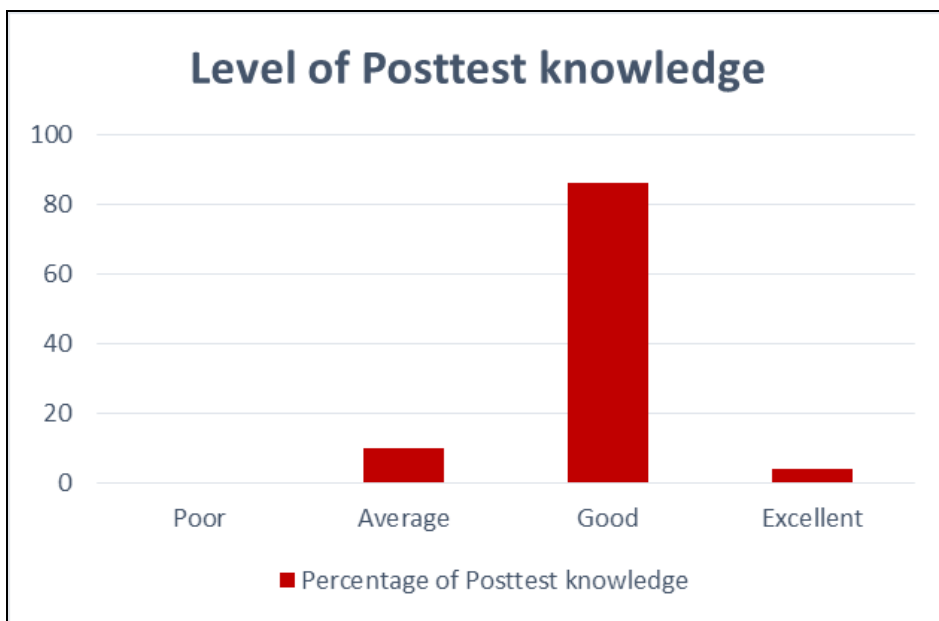


Fig 2: Frequency and percentage distribution of posttest knowledge scores

The frequency and percentage distribution of pre and post test scores of students. The result depicts that in pre-test 36% of students had poor knowledge, 64% of students had average knowledge and no one had good level of

knowledge. In post-test 10% of students had average knowledge, 86% of students had good knowledge and 4% of students had excellent knowledge regarding prevention of adolescent mental health problems.

Section C: Mean, SD, and Mean percentage and Paired “t” test value of pre and post test scores

Table 3: Mean, SD, and Mean percentage of pre and post test scores of students.

Purposively selected students	Mean	SD	Mean Percentage	Difference in mean percentage
Pre-test	7.88	± 2.29	26.26	36%
Post test	18.68	± 2.59	62.26	

The result showed that the pre-test mean was 7.88 ± 2.29 whereas in post-test 18.68 ± 2.59 and the difference in mean percentage was 20%. The result shows that there was a significant difference between pre and post-test knowledge scores.

Table 4: Paired “t” test value of pre and post-test knowledge scores of students

Purposively selected students	Calculated Paired ‘t’ value	Degree of freedom	Table value	Level of significance
Pre test	7.71	29	2.04	Significant
Post test				

* P < 0.05 Significance

The paired “t” test score was 7.71. When compared to table value (2.04) it was high. It seems that the structured teaching programme was most effective on effectiveness on knowledge regarding prevention of adolescent mental health problems among students.

Section D: Chi -square value of association between the posttest Knowledge scores of students and their selected demographic variables

Table 5: Chi -square value of association between the post test scores of Knowledge and their selected demographic variable among students.

SL. No	Demographic variables	No.	%	≤ Median	> Median	Chi-square
1	Age					df=2 5.83, NS
	a) 14-15 Years	14	28%	10	4	
	b) 16-17 Years	25	50%	8	17	
	c) 18 Years and above	11	22%	6	5	
2	Gender					df=1 0.086, NS
	a) Female	22	44%	14	14	
	b) Male	28	56%	10	12	
3	Level of study					df=1 27.95, S
	a) Class XI	30	60%	2	28	
	b) Class XII	20	40%	16	4	
4	Religion					df=2 4.2, NS
	a) Hindu	24	48%	12	12	
	b) Muslim	14	28%	9	5	
	c) Other	12	24%	3	9	
5	Area of residence					df=2 14.25, S
	a) Urban	12	24%	10	2	
	b) Rural	13	26%	10	8	
	c) Semi-urban	20	40%	14	6	
6	Type of family					df=1 2.25, S
	a) Nuclear family	21	42%	13	8	
	b) Joint family	29	58%	11	18	
7	Monthly income of the family					df=3 2.53, NS
	a) Less than Rs .15,000	12	24%	7	5	
	b) Rs. 15,001 – 25,000	13	26%	4	9	
	c) Rs 25,001 – 50,000	16	32%	9	7	
	d) Rs 50,001 and above	9	18%	4	5	
8	Education of father					df=3 1.02, NS
	a) Illiterate	14	28%	7	7	
	b) Primary	11	22%	5	6	
	c) Secondary	8	16%	5	3	
	d) Graduate and above	17	34%	7	10	
9	Occupation of father					df=3 1.19, NS
	a) Health Professional	10	20%	6	4	
	b) Skilled/Unskilled labour	20	40%	12	8	
	c) Self-employed	9	18%	6	3	
	d) Unemployed	11	22%	6	5	
10	Main Source of previous knowledge					df=2 7.26, S
	a) Relatives/ Friends	19	38%	4	15	
	b) Mass Media	16	32%	10	6	
	c) Health professionals	15	30%	4	11	

* P < 0.05 Significance

Chi square test was calculated to find out the association between the pre-test scores of students with their demographic variables. A statistically significant association found between the demographic variables such as level of study, area of residence, and main source of previous knowledge with their pre-test knowledge scores. There is no statistically significant association found between the demographic variables such as age, gender, religion, type of family, monthly income of the family, education of father, Occupation of father with their pre-test knowledge scores.

Discussion

In pretest 36.0 % had poor 64.0 % had average good where as in posttest none of them have poor knowledge 10.0 % showed average 86.0 % of them with good and 4 % were excellent knowledge level on prevention of adolescent mental health problems. This shows an improvement in knowledge level after structured teaching program. In this study the Calculated 't' value 7.71 is higher than the tabulated 't' value of 2.04. So, the H1 hypothesis is accepted. The researcher concluded the structured teaching program was effective. The chi-square implies that there is a significant association between sociodemographic variable like level of study, area of residence and source of previous knowledge regarding prevention of adolescent mental health problems at 0.05 level of significant as the calculated chi-squares values are higher than the tabulated value. Therefore, the H2 hypothesis was accepted.

Conclusion

There is need for awareness program to improve the students' knowledge regarding prevention of adolescent mental health problems. This study revealed that various associated factors influencing the nature of knowledge of students.

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