RESEARCH ARTICLE

AN EVALUATIVE STUDY TO DETERMINE THE EFFECTIVENESS OF SCHOOL BASED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING PREVENTION OF SUBSTANCE ABUSE AMONG ADOLESCENTS IN SELECTED SCHOOLS OF MANGALORE

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ABSTRACT

Adolescence is a critical period of human development manifested at biological, psychological and social level of integration. Approximately 18-20% of the Indian population constitutes adolescents in the age group of 10-19 years. More than one half of all mental disorders and problems occur due to substance abuse among adolescents. The effective and appropriate preventive intervention can only enhance the knowledge regarding the consequence of substance use and develop attitude towards prevention of use of gate way substances.

The study attempts to determine the effectiveness of school based teaching programme on knowledge and attitude regarding prevention of substance abuse among adolescents in selected schools of Mangalore. A quasi-experimental control group design was adopted for the study. Among 100 adolescents, 50 each were assigned to experimental and control group. Data collection was done by using validated structured knowledge questionnaire and Likert attitude scale. The 't' value (t=22.29) was computed between mean pre-test and post-test knowledge scores among experimental group and control group. Also 't' value (t=21.27) was computed between mean pre-test and post-test attitude scores among experimental group and control group .The results revealed that there was a significant increase in knowledge and attitude score among experimental group (t_{98}=1.66, p<0.05). This shows that the school based teaching programme was effective in gaining knowledge and favourable attitude towards prevention of substance abuse among adolescents**.** There was also significant association between knowledge scores of adolescents and selected baseline variables like types of family ($²$=5.464, p<0.05) and educational status of father ($²$=5.653, p<0.05).

INTRODUCTION

Adolescence is a time of great change marked by physical, cognitive, social, emotional and interpersonal changes. It is a period of both opportunities as well as a time of vulnerability and hazard. During this period they make significant choice about their health and develop attitude and health behaviour pattern that will continue into adulthood. As they grow up and develop, they are also influenced by outside factors such as living environment, culture, religion, school, and the media.[1] The incidence of substance use is notable at this stage because this is the time for experimentation and identity formation.[2]

Substance abuse is one of the major health challenges across the world. The United Nations Office on Drugs and Crime (UNODC) reports that approximately 5 per cent of the world's population used an illegal drug in 2010 and 0.6 per cent of the world's adult population used different drugs. According to the statistics of Centres for Disease Control 2007, 6% of the United

State population were belonged to aged group 12 and above whereas 18.8% of high school students had used marijuana in 2006 which was most commonly abused drug by eighth grade students.[3] However, in India, adolescents constitute 20% (243 million) of the country's population. Among them 54% belong to 10-14 year age group and nearly 46% are in the most vulnerable age group. In recent days, there has been gradual increase in substance use among the adolescent population and initiating substance use by an early age. [4] A survey conducted by a non-government organisation revealed that 13% of adolescents who involved in substance use were below the age of 20, where 21% had used alcohol, 3% had used cannabis and remaining 0.1% had used opium.[5] A national study conducted among 5-18 year old children in different states of India also revealed that majority of respondents from Karnataka and Andhra Pradesh (85-89%) were current alcohol users.[6]

The most common reason for substances used were found as curiosity (16.9%), enjoyment (12.2%), to be accepted by others

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(12%)[7], peer pressure and whereas underprivileged adolescents get consumed to escape from unhappy, cruel parental values, unfriendly home atmosphere and poor interpersonal relationships.[8] The common substances used by adolescents were alcohol, tobacco, cannabis and inhalant substances which are known as gateway drugs because the use of these substances lead to further use of other hard drugs.[5]

Substance abuse can be defined as the harmful or hazardous use of psychoactive substances, including alcohol and illegal drugs. The continue use can lead to dependence syndrome with a group of behavioural, cognitive, and physiological effects.[9] It not only causes disruption of family and social relationship but also leads to malnutrition, diseases, disability, loss of productivity, accident, crime, violence, suicide and homicide.[10] Substance abuse prevention should be focused on alcohol, tobacco and cannabis as these substances are gate way drugs typically used first and may ultimately lead to the use of more dangerous hard drugs and crime. [11]The study conducted before also suggested that if the adolescent can be kept free from drugs by imparting adequate informative and normative education regarding the cause and harmful effects, most of them will not use drugs during their lifetime. [11] Hence, school is the best place and adolescent's period is the best timing for the early prevention and early detection of substance abuse with suggestive evidence of twice cost-effective than treatment cost. So, the researcher felt that there is a need for appropriate preventive approach for early prevention of gateway drugs substance abuse among adolescents and initiated this research work.

MATERIAL AND METHODS

A quasi-experimental control group design was adopted for the study. The sample consisted of 100 adolescents with 50 each in experimental and control group from selected schools of Mangalore. The Non-probability convenient sampling technique was used for the study. The conceptual frame work adopted for the study was based on framework of general system model of Ludwig Von Bertalanffy (1968). Data collection was done by using baseline proforma, structured knowledge questionnaire and Likert type of attitude scale. The pretesting and reliability of tool was done. Reliability of the knowledge questionnaire and attitude scale was found to be 0.83 and 0.73 respectively. The researcher obtained permission from the respective authority of the institution and ethical clearance from Ethics Committe of Yenepoya University. Informed consent was obtained from the participants and data collection was done on 1st day using structured knowledge questionnaire and attitude scale followed by school based teaching programme for the experimental group. On the 7th day, post test was conducted for both the group using the same tools. The data were analyzed by using both descriptive and inferential statistics.

RESULTS

Baseline characteristics of adolescents
The findings of the study revealed that in the experimental group, maximum number of participants (82%) were of 13

years and (62%) of them were male. More than half of the participants (64%) belonged to Muslim religion. Majority of them (80%) belonged to nuclear family. Majority of the participants (96%) were residing at home. Nearly half of the participants' mothers had completed PUC education (48%) where as 70% fathers had completed graduation and above level education. The participants who had one and two siblings were equal in number (28% each). More than half of the participant's (56%) had >Rs 20000 monthly family income. Majority of the participants (58%) were not getting pocket money and none of the participants had attended any educational programme regarding prevention of substance abuse before .In the control group, majority of the participants (70%) were in the age group of 13 years and 58% of them were male. Majority of the participants (62%) belonged to Muslim religion. More than half of them (58%) belonged to nuclear family. All the participants (100%) were residing at home. Majority of the participant's mothers had completed higher education (46%) and father's had completed PUC level education (48%). Majority of the participants had (32%) only one sibling. One-fourth of the participants' (38%) had Rs. 10,001-15,000 monthly family income. More than half of the participants (54%) were not getting pocket money and same as experimental group none of the participants (100%) had attended educational programme regarding prevention of substance abuse.

Level of knowledge and attitude scores

Table 1 Frequency and percentage distribution of adolescents according to the level of knowledge score N=100

Level of knowledge	Score	Experimental group				Control group			
		Pre-test		Post-test		Pre-test		Post-test	
		F	%	F	%	F	%	F	%
Inadequate	0-10	-	-	-	-	-	-	-	-
Moderately adequate	11-20	50	100	-	-	49	98	49	92
Adequate	21-30	-	-	50	100	1	2	1	2

The table 1 shows that in the experimental group, 100% of the participants had moderately adequate level of knowledge where as in the post-test 100% of them had acquired adequate knowledge after School Based Teaching Programme regarding prevention of substance abuse. Where as in the control group, 98% of participants had moderately adequate knowledge and only 2% had adequate knowledge regarding prevention of substance abuse in pre-test and no change was found in post-test.

Table 2 Frequency and percentage of adolescents according to attitude score N=100

Level of attitude	Score	Experimental group				Control group			
		Pre-test		Post-test		Pre-test		Post-test	
		F	%	F	%	F	%	F	%
Unfavourable	16-36	-	-	-	-	-	-	-	-
Neutral	37-58	50	100	-	-	50	100	50	100
Favourable	59-80	-	-	50	100	-	-	-	-

The table 2 shows that among experimental group, all the participants (100%) had only neutral attitude regarding prevention of substance abuse in the pre-test but in the post-test 100% of adolescents had acquired favourable attitude towards

prevention of substance abuse. It is also evident that in the control group, 100% of participants had neutral attitude in pre-test and no change was found in post-test.

Table 3 Mean, mean differences, SD difference, and Unpaired 't' test of pre-test and post-test knowledge scores of adolescents regarding prevention of substance abuse in experimental and control group N=100

Sl. No.	Group	Mean score		Mean diff.	SD	Unpaired 't' test
		Pre-test	Post-test			
1.	Experimental group	18.86	24.90	6.040	1.87	21.29*
2.	Control group	18.14	18.02	0.120	0.82	

t_{98}=1.66, p>0.05, df=98   *Significant

The Table 3 shows that the 't' value computed between mean pre-test and post-test level of knowledge scores among experimental and control group was higher (t=21.29) than the table value ($t_{(98)=}$1.66) and it was statistically significant (p< 0.05). Hence, null hypothesis (H_0) was rejected and research hypothesis (H_1) was accepted. This result indicates that the school based teaching programme was effective in gaining of knowledge regarding prevention of substance abuse among adolescents.

Table 4 Mean, mean differences, SD difference, and Unpaired' test of pre-test and post-test attitude scores of adolescents regarding prevention of substance abuse in experimental and control group N=100

Sl. No.	Group	Mean score		Mean diff.	SD	Paired 't' test
		Pre-test	Post-test			
1.	Experimental group	52.14	57.66	13.20	5.12	21.27*
2.	Control group	51.40	51.08	0.32	1.22	

t_{98}=1.66, p>0.05, df=98

The Table 4 shows that the 't' value computed between mean pre-test and mean post-test score among experimental and control group (t=21.27) was higher than the table value (t_{98}=1.66) and it was statistically significant. Hence, the null hypothesis (H_0) was rejected and research hypothesis (H_1) was accepted. This result indicates that the school based teaching programme was effective in developing a favourable attitude towards prevention of substance abuse among adolescents.

To find the association between the pre-test knowledge score regarding prevention of substance abuse among adolescents with the selected baseline variables, chi-square and Fisher exact test was computed. Findings revealed that there was significant association between knowledge score and selected baseline variables like type of family (x^2=5.464, p<0.5) and educational status of father (x^2=5.653, p<0.05) where as no significant association was found between pre-test knowledge score and other variables like age, gender, religion, place of residence, educational status of mother ,number of siblings, and family income. Hence, the null hypothesis was rejected and research hypothesis was accepted in relation to types of family and educational status of father.

DISCUSSION

The present study was found to be effective in gaining knowledge and attitude regarding prevention of substance abuse among adolescents. This findings were similar with study conducted in Oklahoma and Hawai'i State in USA revealed that educational programme improve students' knowledge level regarding alcohol and marijuana and attitude towards its use.[12] The result of the present study is also supported by the study conducted at Dehradun, India revealed that there was significant improvement in knowledge (t=27.61, p=0.001) regarding harmful effect of substance use in the experimental group after intervention. Majority of the adolescents (88.17%) developed favourable attitude regarding smoking .[13] The present study is consistent with another study conducted in Mangalore in which the results showed that there was significant association between type of family (x^2=7.12, p<0.05) and educational status of father.[14]

CONCLUSION

Adolescence is the period of storm and stress and tries to search for new identity and experience. So there is a chance of adopting antisocial behaviour like substance use. The structured based teaching programme is an effective method to gain knowledge and develop favourable attitude towards prevention of substance abuse among adolescents. Nursing administrator can utilize this structured teaching programme to sensitize nurses in order to conduct teaching programme in school and community setting for prevention and promotion of adolescents from substance use. Similar type of study can be conducted with different samples in similar setting like school teachers.

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