

Effectiveness of Video Assisted Teaching Module on Effects of Substance Abuse on Health and its Preventive Measures among Adolescents

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Abstract

Substance abuse has become a major problem in any growing society, the pattern of consumption of medical and non-medical use of drugs by pre-adolescents, adolescents and young adults, is both complex and changing.[1] It's mainly due to adventurous and risk-taking behaviours, acceptable to peers, curiosity to acquaint oneself with the ecstatic experiences or due to an inner urge to avoid frustrations and boredom. Substance abuse during secondary schools, colleges and universities is a serious problem in society.[1] The present study aimed to assess the knowledge on effects of substance abuse on health and its preventive measure among adolescents by evaluating the effectiveness of video-assisted teaching module and to find out the association between the pre test level of knowledge on effects of substance abuse on health among adolescence with selected demographic variables. A quasi-experimental pre and post test design without control group with experimental approach was undertaken for this study. 70 adolescence students were selected by purposive sampling and data were collected by using structured knowledge questionnaire, it was analyzed by using descriptive and inferential statistics. The study result shows highly significant difference between pre and post test knowledge scores and no significant association

between the pre test scores when compared to the demographic variables of adolescence. The researcher concluded that video-assisted teaching program was effective in providing the knowledge regarding effects of substance abuse on health and its preventive measure among adolescents.

Keywords: Video assisted teaching module; Effects of substance abuse on health; Preventive measures among adolescents.

Introduction

Substance abuse is a social problem, not in India alone, but the entire world which varies from country to country. Global trade and liberalisation of socio-cultural interaction of the society has made easy access to use and spread of narcotic substances. Substance abuse is a universal phenomenon with its roots in history and tradition.

Substance abuse is defined as “A maladaptive pattern of drug or psychoactive substance abuse manifested by recurrent and significant adverse consequences related to the repeated use of substances.”

Substance abuse has become a major problem in any growing society, the pattern of consumption of medical and non-medical use of drugs, especially by pre-adolescents, adolescents and young adults, is both complex and changing. Substance abuse by students in

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secondary schools and colleges and universities is a serious problem in society because their students form the core from which the leadership in all walks of life will eventually emerge. It has a strong impact on personal and family life. Drugs and alcohol have a direct relation to sexually transmitted disease and AIDS. Today, people are less concerned about socialism, capitalism and economism and more worried about drugs, alcoholism, rape and terrorism. June 26, 1992 was declared by WHO as the International Day against Substance Abuse and Illicit Trafficking.[2]

“Substance Addiction in India” (UN report, 2005) nearly 4 million registered drug addicts in South Asia, 1.25 lakhs are in India. Distribution: alcohol 42%, Opium 20%, Heroin 13%, Cannabis 6.2% and others 1.8%. These substance abusers are mostly unmarried and from the lower socio-economic strata, 33% of them are engaged in anti-social activities. The mean age of onset of various substance abusers was during youth between 21 and 23 years. Percentage of ever smoking of cigarettes among students in the age group of 13 to 15 years in India.[1] In 2003, 12% boys and 5.4% of girls. In 2006, 14.1% boys and 8.7% of girls (Global youth tobacco survey, 2006).[1] Prevalence of current tobacco use 2000-2008 in between in the age of 13 to 15 years in India, Boys 19% and Girls 8.3% (W.H.O, 2009).[2]

Rapid Assessment Study of Drug Abuse in Target Communities in India was conducted in urban sites namely, Bangalore, Chennai, Imphal, Jodhpur, Kolkata, Lucknow, Mumbai, Patna and Pune. It was reported that among a total of 1271 substance users, the most commonly abused substance are alcohol-43%, heroin-38.2%, opium-9.3%, cannabis-6.1% and other opiates-4.3% respectively. In this survey cannabis was reported highest in Bangalore, i.e., 69.8%, followed by 66.3% in Shillong/Jowai. Abuse of heroin was highest in Imphal, i.e., 83%, followed by Thiruvananthapuram-45.5% and Ahmedabad-37.9% (RAS DATC, 2004).

Studies show that education is one of the main sources for increasing the knowledge and changing the behaviors of adolescent students

regarding substance abuse. Hence, the researcher felt that structured video teaching module would provide a basis for prevention and control of substance abuse among adolescent students. Students are the most vulnerable group and are at high risk of substance abuse related problems compared to other population. The prevalence rate of substance abuse is highest among young adolescents and young adults, a large majority of whom are students. As it is gaining gradual popularity among college students, it would be vital to examine their knowledge towards substance abuse. Structured video teaching module is an important strategy of all the programmes to prevent and control substance abuse.

Methodology

The study based upon Kenny's open system theory, is concerned with changes due to interaction between various factors in a situation. All living systems are open, in which there is a continual exchange of matter, energy, and information. The concepts of J.W. Kenny's open system model are input, throughput, output and feedback.

The research approach adopted for the study was Quasi-experimental i.e. one group pre-test – post-test design. This study was intended to gain knowledge by the clients who were subjected to video teaching module. Here only one group was observed twice, i.e., before and after introducing the independent variable. The effect of the treatment would be equal to the level of the phenomenon after the treatment minus the level of phenomenon before treatment. In this study the video teaching module on substance abuse was the independent variable, dependent variable is the knowledge scores of subjects regarding substance abuse and extraneous variables are age of the students, sex, stream of study, place of stay, type of family, monthly family income, and religion. The sample consisted of 70 subjects studying in selected higher secondary schools of Puducherry. The subjects were

selected by purposive sampling.

The researcher used structured knowledge questionnaire to assess the knowledge on effects of substance abuse and its preventive measures. The tool consists of two sections, the first section of the tool consisted of 7 items, this items for obtaining information of students about the selected background factors such as age, sex, nature of the subjects, place of stay, type of family, monthly family income and religion. The second section of the tool consisted of 30 items, the items covering 3 areas of knowledge regarding drug abuse. The areas included were general information (53.4%), effects of substance abuse (26.7%), and prevention of substance abuse (20%). The items were of multiple-choice type having four options with one correct answer. Each correct response carried a weightage of one score and incorrect answer scores zero.

Content validity of the tool was established on the basis of expert judgments. The reliability of the tool was established by split half and test

re-test method was used. The reliability coefficient was found by Karl Pearson correlation formula. A formal written permission was obtained from principals of selected schools for conducting research study by the investigator before the collection of actual data. The investigator visited the selected schools and was introduced to the students by the concerned class teacher. The purpose of the study was explained to the students and assured the confidentiality of their identity and responses in order to ensure their co-operation and prompt response. The pre-test knowledge questionnaire was implemented to the students on 2nd November 2011 after completing the pre test on the same day video teaching module was given with the help of using TV and CD player for 40 minutes. Post-test was administered to the students using the same tool on the 7th day after the video teaching module. The knowledge scores of the students regarding substance abuse before and after administration of video teaching module would

Table 1: The socio-demographic details of the subjects

N = 70

Variables	Frequency	Percentage
Age (in years)	13 - 15	-
	16 - 18	70
Sex	Male	70
	Female	-
Group/nature of education	Bio-science	21
	Science	32
	Commerce	17
	Other	-
Family income per month	Below Rs: 2000/-	-
	Rs: 2001-5000/-	29
	Rs: 5001-10000/-	34
	Above Rs: 10001/-	7
Place of stay	Home	55
	With friends	-
	Hostel	15
	Relatives house	-
Type of family	Nuclear family	21
	Joint family	49
Religion	Hindu	39
	Muslim	5
	Christian	26
	Other	-

Table 2: Comparison of pre test and post test knowledge scores on effects of substance abuse on health and its preventive measure among adolescents.

N = 70

Area	Max Score	Pre test scores			Post test scores			Difference in mean %
		Mean	SD	Mean %	Mean	SD	Mean %	
General information	16	5.94	1.45	37	11.27	1.28	70	33
Effects of substance abuse	8	2.41	0.94	30	5.96	0.98	75	45
Preventive measure	6	3.7	1.09	62	5.4	0.65	90	28
Overall	30	12.06	1.92	40	22.63	1.905	75	35

be analysed in terms of frequency, percentage, mean, mean percentage and standard deviation. The significant difference between the mean pre-test and post-test knowledge scores would be determined by computing paired 't' test. The chi-square was used to find out the association between the demographic variables with knowledge. Master data sheet would be prepared by the investigator to analyze the data, the data were presented in the form of tables and figures.

Results

Table 1 shows that 100% of adolescence were in the age group of 16 to 18 years. According to their sex 100% of them are males and their nature of education reveals that highest percentage (46%) of them are science group, 30% students were bio-science and 24% were commerce. Family income shows that highest percentage (49%) of them were belongs to Rs. 5000-10000. Whereas (41%) of them were belongs to Rs. 2001-5000. According to their place of stay shows that highest percentage (79%) of them were home, and the type of family shows that most (70%) of them were joint family. According to their religion reveals

that most 56% of the adolescence were Hindus.

Table 2 shows comparison of overall mean, SD, and mean percentage of pre test and post test knowledge scores shows that over all mean score in pre test 12.06 ± 1.92 which is 40% whereas in post test the mean score was 22.63 ± 1.90 which is 75% revealing 35% of difference in mean score. Hence, it can be revealed that there is significant difference between the pre and post test scores.

Paired 't' test was used for assessing the statistical significance between the pre and post test knowledge scores which there was a highly significant difference between all aspects related to effects of substance abuse on health and its preventive measure among adolescents at $p < 0.001$ level significance. Hence the null hypothesis H_0 rejected and concluded that there is a statistical significant difference between pre and post test knowledge of adolescence regarding effects of substance on health and its preventive measures. It seems that the video assisted teaching module was highly effective.

Findings related to the association between pre-test knowledge score and selected demographic variables. Chi-square was calculated to find out the association between

Table 3: Effectiveness of video assisted teaching module on effects of substance abuse on health and its preventive measure among adolescents.

N = 70

Sl. No.	Area	't' value	p-value	Level of significance
1	General information	24.34	0.000	Highly significant
2	Effects of substance abuse	21.99	0.000	Highly significant
3	Preventive measure	10.58	0.000	Highly significant
4	Overall	36.32	0.000	Highly significant

(df =69, table value = 3.435, $p < 0.001$ highly significant)

the pre test knowledge scores of the adolescents. No significant association was observed between knowledge scores of adolescents in pre test when it is compared to their age, sex, nature of education, family income, place of stay, type of family and religion, ($P>0.01$).

Discussion

Distribution of mean, SD and mean percentage of pre test knowledge scores of adolescence regarding effects of substance abuse on health and its preventive measure shows that out of 30 maximum attainable scores, the overall mean score was 12.06 ± 1.92 which is 40% of the total score revealing that the adolescence had very poor knowledge. Other studies also have shown that adolescent's knowledge regarding substance abuse is inadequate. A study from Lucknow reported that adolescents lacked knowledge about drug abuse, the effect of it on body and the complication associated with it (Deo, Anilkumar, Lamsal, Shyam, 2005).[3] The result of a study from U.K. showed that young people lacked knowledge on the use and complication of illicit drugs (Sharmer 2001). A study conducted on students in America showed that college students lack knowledge on substance abuse policies and there was an urgent need to improve the knowledge of students on the harmful effects of substance abuse (Duistman DM, Cychosz CM, 1997).[4]

Comparison of overall mean, SD, and mean percentage of pre test and post test knowledge scores shows that over all mean score in pre test 12.06 ± 1.92 which is 40% whereas in post test the mean score was 22.63 ± 1.90 which is 75% revealing 35% of difference in mean score. The difference between pre test and post test assessment score were compared using paired 't' test. The findings revealed that a highly significant difference between pre and post test knowledge scores of the adolescence (table value = 3.435, $P<0.001$ highly significant). Hence, it can be interpreted that the video-assisted teaching module was effective. The

present study is contradictory to the study findings conducted by Gowri N (2010) to assess the effectiveness of structured teaching programme on knowledge attitude and practices regarding tobacco consumption among 60 subjects, it revealed that significant increase in the level of the knowledge and attitude in the post test comparing to the pre test. The study finding indicates the need of structured teaching programme to improve the knowledge.[5]

Another study conducted by Shivakumara J, (2005) among 120 college students in Bangalore also showed that the mean post-test knowledge scores were significantly higher than their mean pre-test knowledge scores indicating that health education programme was effective in enhancing the knowledge.[6] Autry K, Finke W, Hail A, (2002) conducted a study for college students found that students lacked knowledge on alcoholism and planned teaching programme was an effective measure to improve their knowledge. One more study conducted by Sreevani R *et al*, (2005) among 30 adolescence students regarding adverse effects of tobacco smoking on knowledge gain, also showed that the effectiveness of planed teaching programme ($t=19.18$, $Pd''0.001$) which revealed mean post-test knowledge scores were significantly higher than their mean pre-test scores. Their study revealed a significant increase in post-test knowledge scores of students after the administration of planned teaching programme.[7]

The above mentioned studies clearly shows that video-assisted teaching module conducted in higher secondary schools are effective in improving the knowledge of adolescence students and this will help them to avoid substance abuse.

Conclusion

Adolescence substance abuse is an important public health concern and in the past two decades there have been dramatic changes and increase in the demand for interventions to

address substance abuser problems among adolescence. The video-assisted teaching module for students on substance abuse could help them to keep their personality and optimal health. Assessment of knowledge on substance abuse among the adolescence students and teaching them about substance abuse is the main concept of the study. This will help the student to gain knowledge on substance abuse in the areas concerned.

Majority of the adolescence students' knowledge on substance abuse was inadequate before the video-assisted teaching module was introduced. Hence, the video-assisted teaching module among adolescence students facilitated them to learn more about substance abuse, which is evident in the post-test knowledge scores. Thus it is concluded that the video-assisted teaching module is highly effective in imparting the knowledge on substance abuse for adolescence students.

Reference

1. Tobacco control in schools in India. India global youth tobacco survey and global school personal survey. 2006; 23-24.
2. World Health Organization. The extent, pattern and trends of drug abuse in India. National Survey sponsored by Ministry of Social Justice and Empowerment. Government of India and United Nations Office on Drugs and Crime, Regional Office for South Asia, 2004.
3. Autry K, Finke W, Hail A, Kemper D, Kersey S, Ritter M. Survival against drugs. Education for school age. *JCAPN*, 4(15): 163-169.
4. Deo, Anilkumar, Lamsal, Shyam. (Feb 2005). Factors contributing to drug abuse among street adolescent in selected areas of Lucknow, India. In: *ISPN*; (2002).
5. Duistman DM, Cychosz CM. The efficacy of a university drug education course on factors that influence alcohol use. *Journal of Drug Education*. 1997; 30(27): 223-9.
6. N Gowri. Effective structured teaching program on knowledge, attitude and practices regarding tobacco consumption in rural health setting. *The nursing Journal of India*. 2010; 2: 46-47.
7. Shivakumara J. Impact of health education programme on knowledge of students towards drug abuse in selected colleges of Mangalore. [unpublished Master of Science in Nursing], (2005), Rajiv Gandhi University of Health Sciences, Karnataka, Bangalore.