Research article

A study to assess the effectiveness of self-instruction module on knowledge among adolescents regarding substance abuse in selected school of Raigad

Mrs. Sudershna Prasad

College of nursing, Bharti Vidyapeeth, Navi Mumbai, Maharashtra, India

Abstract

Introduction: Adolescents are "biologically wired" to seek new experiences and take risks, as well as to carve out their own identity. Trying drugs may fulfil all of these normal developmental drives, but in an unhealthy way that can have very serious long-term consequences. Tobacco, alcohols are the first addictive substances most adolescence try.

Methodology: Total fifty (50) Subjects were taken in the study. Age group of these students was assessed between 13-16 years. Subjects enrolled according to inclusion and exclusion criteria. Sampling technique is the name or other identification of the specific process by which the entities of the sample have been selected. We have used non-probability convenient sampling. The sample were selected the investigator approached the consent of concerned authority. A self-structured module was prepared and used for the data collection; questionnaire is a quick and generally inexpensive means of obtaining data from respondents. The self structured module was administered by the investigator. The duration of data collection was 10 minutes from each sample. Study instrument used by the researcher consisted of Demographic Questionnaire, Knowledge Questionnaire regarding Alcohol, Knowledge Questionnaire regarding Tobacco.

Results: In our study major findings out of 50 samples, 29(58%) were boys and 21 (42%) were girls in the study. The students in age group 13-14 yrs were 38 (76%) and 15-16 yrs were 12 (24%).Maximum 78% of students are Hindu and least are Christian and others with 4% each and Muslims are 7%. Most of the parents have secondary education. Comparatively fathers are more educated than mothers and no mother is graduated. Maximum monthly income is <5,000 of the families. Maximum Alcohol consumption is by fathers (11) and maximum Tobacco consumption is by self. Maximum 90% are non consumers and 10% are consumers of tobacco in the samples. Maximum 92% are non consumers and 8% are consumers of alcohol. The mean value of pre-test knowledge was 21.46 and post test knowledge was 43.46 and also check the difference between pre and post test knowledge was 1.645

Conclusion: Studies have made it clear that drug education and prevention aimed at children and adolescents offers the best chance to curb abuse nationally.

Key words: Self instruction module, abuse

*Corresponding author: Mrs. Sudershna Prasad, Assistant professor, College of Nursing, Bharti Vidyapeeth, Navi Mumbai, Maharashtra, India Email is: sudershna2402@gmail.com

1. Introduction

Substance abuse is the use of drugs, alcohol, or chemicals which results in physical, psychological, emotional harm to the user or others. Most frequently abused substances include: alcohol, tobacco. Substance abuse, also known as drug abuse, is a patterned use of a drug in which the user consumes the substance in amounts or with methods which are harmful to themselves or others, and is a form of substance-related disorder. Adolescents are "biologically wired" to seek new experiences and take risks, as well as to carve out their own identity. Trying drugs may fulfil all of these normal developmental drives, but in an unhealthy way that can have very serious long-term consequences. Tobacco, alcohols are the first addictive substances most adolescence try. Tobacco: People cite many reasons for using tobacco, including pleasure, improved performance and vigilance, relief of depression, curbing hunger, and weight control. Smoking is

responsible for nearly a half million deaths each year. Tobacco use costs the nation an estimated 300 billion a year, in direct and indirect health care costs and lost productivity. Tobacco use in children and adolescents is reaching pandemic levels. The World Bank has reported that nearly 82,000–99,000 children and adolescents all over the world begin smoking every day. About half of them would continue to smoke to adulthood and half of the adult smokers are expected to die prematurely due to smoking related diseases .If current smoking trends continue, tobacco will kill nearly 250 million of today's children.

India is the second most populous country in the world. It is a secular country but the Hindus form the majority. Hinduism traditionally advocates abstinence from all intoxicants. Even then, India is the third largest producer and consumer of tobacco in the world. The country has a long history of tobacco use. Tobacco is used in a variety of ways in India; its use has unfortunately been well recognized among the adolescents. Tobacco addiction of a large number of adults has been initiated during the adolescence.

People abuse substances such as drugs, alcohol, and tobacco for varied and complicated reasons, but it is clear that our society pays a significant cost. The toll for this abuse can be seen in our hospitals and emergency departments through direct damage to health by substance abuse and its link to physical trauma

2. Methodology

Study population:

Total fifty (50) Subjects were taken in the study. They all are schools going students of 9th standard in Shri Chatrapati Shivaji Vidyalaya at Wawanje Village, Raigad District. Age group of these students was assessed between 13-16 years.

Sample:

A sample is used in research when it is not feasible to study the whole population from which it is drawn."A sample is a small portion of population selected to participate in research study." The sample selected for the present study comprised of adolescent students of Shri Chatrapati Shivaji Vidyalaya of wawanje, Raigad District.

Sample criteria:

The following criteria were set for the selection of sample.

Inclusion criteria:

- Students of 9th standard.
- Students of age group 13– 16 yrs of age.
- Students who know Marathi and English.
- Students available during data collection period.

Exclusion criteria:

- Students who are less than 12 yrs of age.
- Students who are not willing to participate.
- Students who are absent during time of data collection.

Sample size: Total fifty (50) subjects were taken in this study

Sampling technique: A sampling technique is the name or other identification of the specific process by which the entities of the sample have been selected. We have used non-probability convenient sampling.

Data collection tool: The sample was selected the investigators approached the consent of concerned authority of the Shri shrichatrapatishivaji Vidyalaya wawanjevillage, Raigarh District and discuss the objective of the study. A formal permission was taken from the authority and consent was obtained from the participant. A self structured module was prepared and used for the data collection; questionnaire is a quick and generally inexpensive means of obtaining data from respondents. The self structured module was administered by the investigator. The duration of data collection was 10 minutes from each sample.

Study instrument used by the researcher consisted of:

Section 1:   Demographic Questionnaire
Section 2(A): Knowledge Questionnaire regarding Alcohol
Section 2(B): Knowledge Questionnaire regarding Tobacco

In which each correct option is scored 1 and incorrect option is scored 0 maximum score is 30 and minimum score is 0.

Plan for data analysis

The data analysis is planned to include descriptive and inferential statistics.
Data analysis is done by using percentage, mean, dependent't' test.

Pilot study

A pilot study to be conducted on 1/10th of sample, we had taken 10 sample. The study was conducted on 28.11.2016 in Shri Chatrapati Shivaji Vidyalaya. The purpose of pilot study is to find out the feasibility of conducting study and design on plan of statistical analysis.
The pilot study gave an insight to investigator of an opportunity to identify the problems and make changes in the research methodology. The finding of pilot study was analyzed by mean, frequency, percentage and

standard deviation. The study design was then found to be feasible and convenient to main study.

3. Results

Analysis of the data

Total fifty (50) Subjects were taken in the study. Out of 50 subjects male population was 58% and female population was 42%. Maximum 76% of students are in the age group of 13-14 yrs and minimum 24% of students are in the age group of 15-16 yrs shown in table 2.
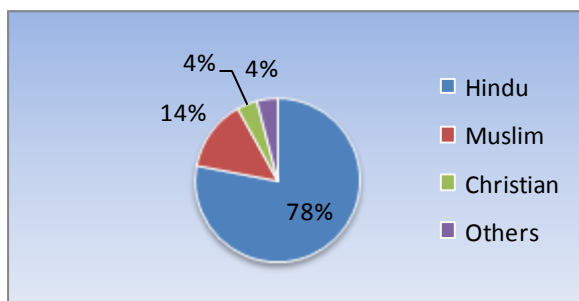
Table No 1: Analysis of demographic characteristics of sample

S.N.	Gender	Percentage
1	Male	58
2	Female	42

Table No 2: Shows age distribution in percentage

S.N.	Age in year	Percentage
1	13-14yrs	76
2	15-16yrs	24

Out of fifty (50) subjects maximum 78% of students are Hindu and least is Christian and others with 4% each and Muslims are 7% that were shown in fig1.


Religion
Figure No 1: Pie diagram shows religion of students in percentage.

We analysed the education of the parents in which out of 50 student's parents, we asked separately to mother and father questions regarding education in which only 12% father are graduate and 60 % father are completed his secondary school education and primary education and illiterate are 24% and 4 % respectively and in case of mother no one completed her graduation only primary 34% and secondary education58% were completed and 8 % illiterate population in mothers shown in (table 3).

Table No 3: Shows educational qualification of parents

| S N	Gender	Primary	Secondary	Graduation	Illiterate
1	Father	12(24%)	30(60%)	6(12%)	2(4%)
2	Mother	17(34%)	29(58%)	0	4(8%)
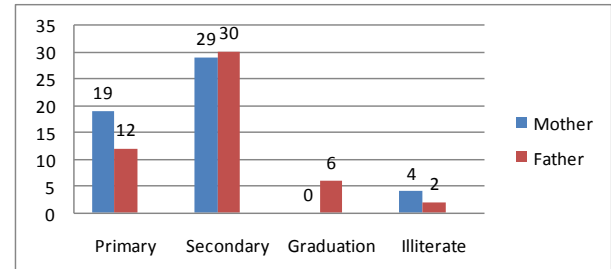
n=50
Parent's educational qualification
Figure No 2: Subdivided bar graph shows educational qualification of parents. Most of the parents have secondary education. Comparatively fathers are more educated than mothers and no mother is graduated.

We also analysed the job distribution of student's mothers and fathers. In case of father only 48% were workers, 16% were farmers but in case of females 14% were workers and 20% were farmers. Males also doing other jobs like private jobs etc that population were 28% and some are drivers that are 8 %. In females which were also doing another job like teaching, private job etc that population was 66% (Table 4).

Table 4-Shows job distribution of student's parents

| SN	Gender	Worker	Farmer	Driver	Others
1	Male	24(48%)	8(16%)	4(8%)	14(28%)
2	Female	7(14%)	10(20%)	0	33(66%)
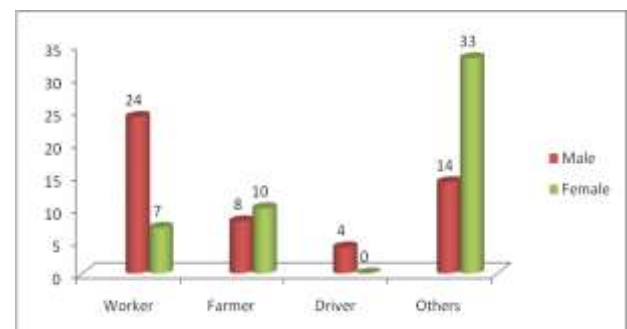
n=50
Occupation of parents
Figure No 3: Subdivided bar diagram shows job distribution of student's parents. Maximum males are workers and females are housewife

Monthly income of the families maximum was 10,000 in 18 % populations, 40% population was earned between

5000-10,000 and 42% populations was earned less than 5000 (Table 5).

Table No 5: Shows monthly income of families.

| S.N.	Monthly income	No. of family
1	<5000	21
2	5000-10000	20
3	>10000	9
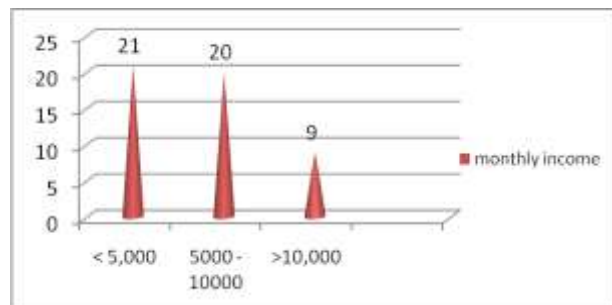
Monthly income of family
Figure No 4: Above bar diagram shows monthly income of the families. Maximum monthly income is <5,000 and minimum monthly income is. 10,000

Maximum alcohol consumption is by 11(22%) fathers and maximum tobacco consumption is by self (Table 6).

Table No 6: Shows alcohol and tobacco consumption in family.

| SN	Substance	Mother	Father	Sibling	Self
1	Alcohol	0	11	2	4
2	Tobacco	2	2	3	5
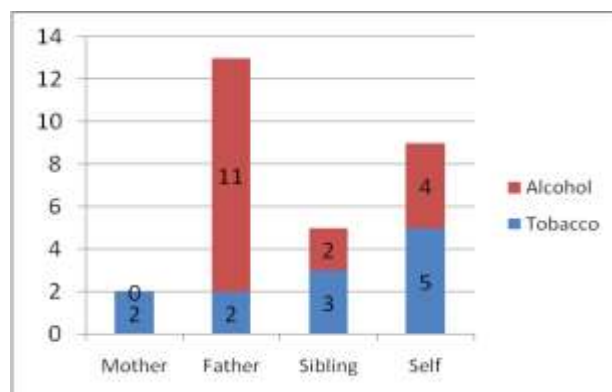
No=60
Tobacco and alcohol intake
Figure No 5: Above subdivided bar diagram shows Alcohol and Tobacco consumption. Maximum Alcohol consumption is by 11 fathers and maximum Tobacco consumption is by self.

Maximum 90% are non consumer's tobacco and 10% are consumed tobacco (Table 7) and in case of alcohol intake maximum 92% are non consumers and 8% are consumers (Table 8).

Table No 7: Shows percentage of tobacco consumption

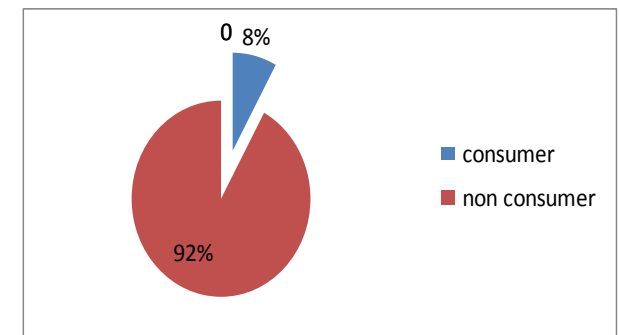| S.N.	Tobacco consumption	Percentage
1	Consumer	10
2	Non consumer	90
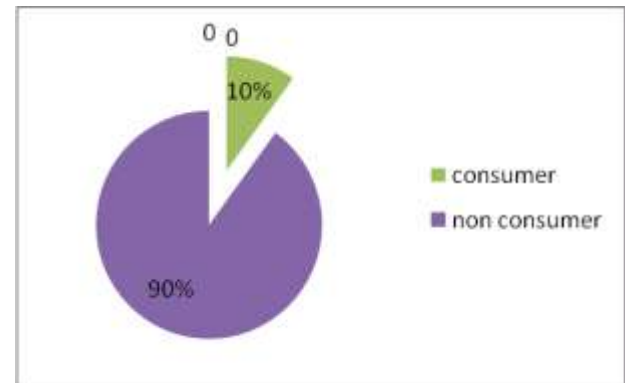
n=50
Tobacco intake
Figure No 6: Above Pie diagram shows percentage of tobacco consumption. maximum 90% are non consumers and 10% are consumers.

Table No 8: Shows percentage of alcohol consumption.

SN	Alcohol consumption	Percentage
1	Consumer	8
2	Non consumer	92

n=50
Alcohol intake
Figure No 7: Above Pie diagram shows percentage of Alcohol consumption. maximum 92% are non consumers and 8% are consumers.

Section II
Table No 9: Shows mean value of pre test and post test.

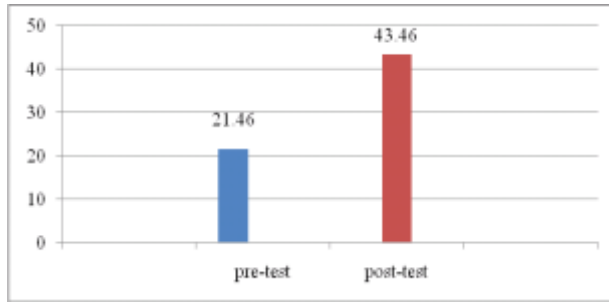| S.N.	Test	Mean value
1	Pre test	21.46
2	Post test	43.46

Figure No 8: Above bar diagram shows that post-test mean value of knowledge is more than double of the pre-test knowledge mean value. Proving that self structured teaching module is effective.

Table No 10: Shows pre-test and post-test knowledge difference

N	Total Pre-test score	Total Post-test score	Difference (d)	d^2
50	644	1304	660	17162

Dependent 't' test formula applied,

$$\overline{d} = \frac{\sum d}{n}$$

$$s = \sqrt{\frac{\sum d^2 - n(\overline{d})^2}{n-1}}$$

$$t = \frac{\overline{d}\sqrt{n}}{s}$$

= 7.107 (calculated value)

Table value = 1.645

Therefore table value < calculated value.

Statistical analysis:

As calculated value is more than table value, the null hypothesis is rejected and the alternative hypothesis is accepted. Therefore, this indicates that self structured module is effective. The findings of the study are discussed with reference of the objectives, hypothesis and finding of the similar study. Analysis was made by using percentage, mean, dependent 'T' test. Discussion of the finding is based on sample characteristics and knowledge regarding substance abuse and its ill effects among adolescents in selected school of Raigad.

4. Discussion

Tobacco and alcohol abuse are very high in some of the states of Northeast India. Adolescence being the formative period of life, boys and girls start the habit under peer pressure, household influence, parental influence, and by dint of inquisitive mind and experimentation. In many parts of India, including northeast, alcoholic drinks are prepared in households taking rice as main ingredient or other available

ingredients by fermentation while some people use these alcoholic drinks in religious and social functions. Further, homemade alcoholic drinks (HADs) are used in front of parents and elders in social functions without inhibition. As such, in most cases, adolescent boys and girls get the taste of alcoholic drinks in the early part of life. They continue in tolerable doses; later, some of them shift to commercially available alcoholic drinks (CADs), and gradually, they become habitual drinker or addicts [1]. Tobacco is used in a wide variety of ways all around the world in different smoking and smokeless ways. Smoking practices are the ways in which tobacco is inhaled in the form of smoke while smokeless practices include chewing, swallowing or any other way in which nicotine from tobacco is ingested to bloodstream. According to a report published in 2016 by "quitsmokingcommunity.org", an online portal which helps addicts to quit smoking, the nicotine content in a cigarette is about 12 mg per cigarette. The large majority of cigarettes fall between a range of 8 mg and 20mg. But it is important to note that most of those within that range hit near the low end [2].

A survey by psychiatrists has found that most teenagers in Mumbai are just a friend away from substance abuse. Nearly 90% of the respondents between 14 to 20 years were aware about drug abuse and knew someone who was grappling with it. Around 700 teens were interviewed across 12 educational institutes largely in Mumbai and Navi Mumbai, and few from Pune. Among them, 621 said that drugs are the most common substance used by their peer group, followed by alcohol (585) and tobacco (342).Maximum respondents mentioned weed or cannabis; they considered it harmless and said they use it multiple times a day. Around 22% knew about 'MD' or 'meow meow', street name for mephedrone, 15% have heard of cocaine and 7% are aware about white ink - an office stationery item - being used to get high [3]. Easy access to tobacco products: A study report published by Sinha D.N. and Gupta P.C., National Medical Journal of India in 2001states that tobacco products are socially sanctioned but are freely available at every nook and corner throughout the country. Beed is cheaper than cigarettes and are preferred by the poor who cannot afford the cigarettes. A range of MSTP products are also cheaper and provide to be used in disguise, as they do not cause any smoke or visible indication of tobacco use. Also they do not carry the trouble of carrying a lighter which further makes it popular among the young users. The corresponding study was conducted in male medical students in Patna, India [4].

Psychological/emotional factors: According to a report published by Patel D.R. in Indian Journal of Pediatrics in 1999, poor school performance, low aspiration for future success, and school dropouts are found to be associated with smoking at an early age [5]. An article by Singh S.K. et al., Published in Indian Journal of Chest Diseases and allied Sciences in 1989 find that adolescents with

anxiety and depression are likely to use tobacco and other drugs, due to their mood relieving effects [6].

In our study major findings out of 50 samples, 29(58%) were boys and 21 (42%) were girls in the study. The students in age group 13-14 yrs were 38 (76%) and 15-16 yrs were 12 (24%).Maximum 78% of students are Hindu and least are Christian and others with 4% each and Muslims are 7%. Most of the parents have secondary education. Comparatively fathers are more educated than mothers and no mother is graduated. Maximum monthly income is <5,000 of the families. Maximum Alcohol consumption is by fathers (11) and maximum Tobacco consumption is by self. Maximum 90% are non consumers and 10% are consumers of tobacco in the samples. Maximum 92% are non consumers and 8% are consumers of alcohol. The mean value of pre-test knowledge was 21.46 and post test knowledge was 43.46 and also checks the difference between pre and post test knowledge was 1.645

Implication of study

Nursing administration:

As a part of administration, the nurse administrator plays a vital role in educating their nursing staff. The nurse administrator can enhance the knowledge of students and staff nurses. Nursing administration can depute nurses for various workshops, conferences and also health education programs can be arranged by the nursing staff for adolescents. Administrative support should be provided for the development of such educational materials.

The teaching module of the study can be used by nurse administrators for health education.

Nursing education:

Nursing education is developing rapidly in India and nurses from our country can be found all over the world providing best care and education.

Nowadays more importance is given to awareness and promotion of health than the curative aspects. As a need of society is continuously changing newer components must be incorporated in the nursing curriculum. Nursing education must emphasize on preventive aspects. The nursing teachers can refer the teaching module as an informative illustration for the students.

Nursing services:

The teaching module can be used by school health nurse. The present study can help to improve nursing services through health education, awareness regarding substance abuse and its ill-effects thus improving public health, increasing awareness among adolescents.

Nursing research:

Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and a body of knowledge. Another research has been added to the nursing literature. A lot of studies have been done on a similar basis but still we have very less awareness regarding substance abuse and its ill-effects. The research design, findings and the tool can be used as avenues for the further research.

References

[1] Mahanta B, Mohapatra PK, Phukan N, Mahanta J. Alcohol use among school-going adolescent boys and girls in an industrial town of Assam, India. Indian journal of psychiatry. 2016 Apr; 58(2):157.

[2] Chhabra SK, Rajpal S, Gupta R. Patterns of smoking in Delhi and comparison of chronic respiratory morbidity among beedi and cigarette smokers. Indian Journal of Chest Diseases and Allied Sciences. 2001 Jan 24; 43(1):19-26.

[3] Breslau N, Kilbey MM, Andreski P. Nicotine dependence and major depression: new evidence from a prospective investigation. Archives of general psychiatry. 1993 Jan 1; 50(1):31-5.

[4] Milne BJ, Caspi A, Harrington H, Poulton R, Rutter M, Moffitt TE. Predictive value of family history on severity of illness: the case for depression, anxiety, alcohol dependence, and drug dependence. Archives of general psychiatry. 2009 Jul 1; 66(7):738-47.

[5] Nair U, Bartsch H, Nair J. Alert for an epidemic of oral cancer due to use of the betel quid substitutes gutkha and pan masala: a review of agents and causative mechanisms. Mutagenesis. 2004 Jul 1; 19(4):251-62.

[6] Gupta PC, Ray CS. Epidemiology of betel quid usage. Annals-Academy of Medicine Singapore. 2004 Jul 1; 33:31-6.