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RESEARCH ARTICLE

PREVALENCE OF SUBSTANCE ABUSE AMONG HIGHER SECONDARY SCHOOL STUDENTS IN KOTTAYAM DISTRICT, KERALA STATE

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ABSTRACT

Objective: To find out the prevalence of substance abuse among higher secondary school students in Kottayam district of Kerala.

Materials and Methods: Interventional study was conducted in selected Higher Secondary schools with the interval of six months period. 48 schools were selected by applying systematic random sampling technique from entire school list. For the sample purpose, each 16 schools has been selected from Government school ie 8 schools from rural and another 8 schools from urban areas. The same proportion was used to select the schools from Aided and Unaided schools respectively. Structured Questionnaires was used for the data collection.

Results: Before intervention study, number of students who had smoking habits were high students 88(21.0%). It is quite interesting that, after intervention, the number of students who had habit of smoking was reduced as 32(7.6%). Before intervention study, 19(38.0%) of the students were used substance who belongs to Muslim community followed by Hindus 38(20.5%) and Christians 29(17.1%). 110(26.2%) of students report that they had monthly income of Rs > 25000.

Conclusion: The initiation of substance abuse at early adolescence results in continuation of substance to the adulthood. Therefore, preventive strategies are required to be planned and suggested for substance abuse. Government should take up initiative and incorporate the problem and the adverse health effect of substance use in the school curriculum as early as primary level.

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INTRODUCTION

Adolescents are also entitled to enjoy basic human rights-economic, political, social and cultural- but their inability to exercise these rights places the onus on the policy makers and adults to implement separate measures to ensure their rights. Moreover it is necessary to invest in adolescents as the future leaders and guardians of nation's development (Rao, 2001). In India, the choice of substance among the young varied from tobacco products, alcohol, heroin to prescribed medications (Saluja, 2007 and Sivastva, 2004). Among the users, the gender differences were significant with regard to the magnitude of substance abuse but not the choice of substances (Kapil, 2005). Several psychosocial factors have been associated with substance abuse. Particularly, peer pressure, media portrayal of substance-use by celebrities (Malhotra, 2007), lucrative advertisements, attractive packaging and

expectations of joy are commonly associated with harmful use of substances by the young (Kangule, 2011). Science and Nutrition also noted that excessive chewing of kola, consumption of bland coffee and other substances to stay awake, could lead to addiction and substance abuse (Science and Nutrition 2009). Sanni 2010 identified vandalism, drug abuse, weapon carrying, alcohol abuse, rape, examination malpractices, school violence, bullying, cultism, truancy, and school drop-outs as anti-social behaviours often associated with juvenile delinquents. Under this circumstance, the aim of the present study was to find out the prevalence of substance abuse among higher secondary school students in Kottayam district of Kerala state.

MATERIALS AND METHODS

Study design

Interventional study was conducted in selected Higher Secondary schools. Multistage sampling technique was used

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for collecting the data with the interval of six months period. Structured Questionnaires was used for the data collection.

Sample Population

Sample population for the present study constitutes 420 boy students who had habit of chewing of selected Higher Secondary Schools of Kottayam district in Kerala State. For research purpose, 48 schools were selected by applying systematic random sampling technique from entire school list. For the sample purpose, each 16 schools has been selected from Government school ie 8 schools from rural area and another 8 schools from urban area. The same proportion was used to select the schools from, Aided and Unaided schools respectively. Systematic sampling technique was applied for data collection from the respondents.

Tool: Structured Questionnaires was used for the data collection.

Data analysis: The data collected were analyzed using SPSS and frequency, percentage and cross tabulation were applied for run the analysis.

RESULTS

The (Table 1) shows that the proportion of students who had completed their Plus One (54.0%) and another 46% of students pursuing their Plus Two course.

Reasons for substance abuse

There were 14 reasons consider for this research study as substance abuse such as 1) Juvenile delinquency 2) Company sake 3) mental stress 4) To improve present stat us

Table 1. Percentage distribution of students by Level of education

Level of education	No. of students (%)
Plus One	193(46.0%)
Plus Two	227(54.0%)
Total	420(100.0%)

Table 2. Reasons for substance abuse and Age

Age	Reasons for substance abuse				Total
	1-3	4-6	7-14	Nil	
15-16	97(60.6%)	58(36.2%)	3(1.9%)	2(1.2%)	160
16-17	168(69.4%)	49(20.2%)	23(9.5%)	2(0.8%)	242
17-18	16(88.9%)	2(11.1%)	0	0	18
Total	281(66.9%)	109(26.0%)	26(6.2%)	4(1.0%)	420

Table 3. Age and Smoking habit of students

Age	Smoking habit				Total
	Before		After		
	Yes	No	Yes	No	
15-16	35 (21.9%)	125(78.1%)	18(11.3%)	142(88.8%)	160
16-17	50(20.7%)	192(79.3%)	11(4.5%)	231(95.5%)	242
17-18	3(16.7%)	15(83.3%)	3(16.7%)	15(83.3%)	18
Total	88(21.0%)	332(79.0%)	32(7.6%)	388(92.4%)	420

Before: $P=0.294$, $X^2=0.863$ and after: $P=2.324$, $X^2=0.943$

Table 4. Religion and smoking habit of student

Religion	Smoking habit				Total
	Before		After		
	Yes	No	Yes	No	
Hindu	38(20.5%)	147(79.5%)	12(6.5%)	173(93.5%)	185
Christian	29(17.1%)	141(82.9%)	9(5.3%)	161(94.7%)	170
Muslim	19(38.0%)	31(62.0%)	10(20.0%)	40(80.0%)	50
Others	2(13.3%)	13(86.7%)	1(6.7%)	14(93.3%)	15
Total	88(21.0%)	332(79.0%)	32(7.6%)	388(92.4%)	420

Before: $P=10.874$, $X^2=0.012$ and After $P=14.912$, $X^2=0.082$

Table 5. Stream of education and smoking habit of students

Stream of education	Smoking habit				Total
	Before		After		
	Yes	No	Yes	No	
Arts	28(21.4%)	103(78.6%)	12(9.2%)	119(90.8%)	131
Science	53(20.2%)	209(79.8%)	15(5.7%)	247(94.3%)	262
Humanities	7(25.9%)	20(74.1%)	5(18.5%)	22(81.5%)	27
Total	88(21.0%)	332(79.0%)	32(7.6%)	388(92.4%)	420

Before $P=.500$, $X^2=0.779$ and After $P=.964$, $X^2=0.014$

Table 6. Percentage distribution of students by Exposure to mass media (weekly)

Exposure to mass media (weekly)	No. of students	%
More frequently	322	76.7
Less frequently	98	23.3
Total	420	100.0

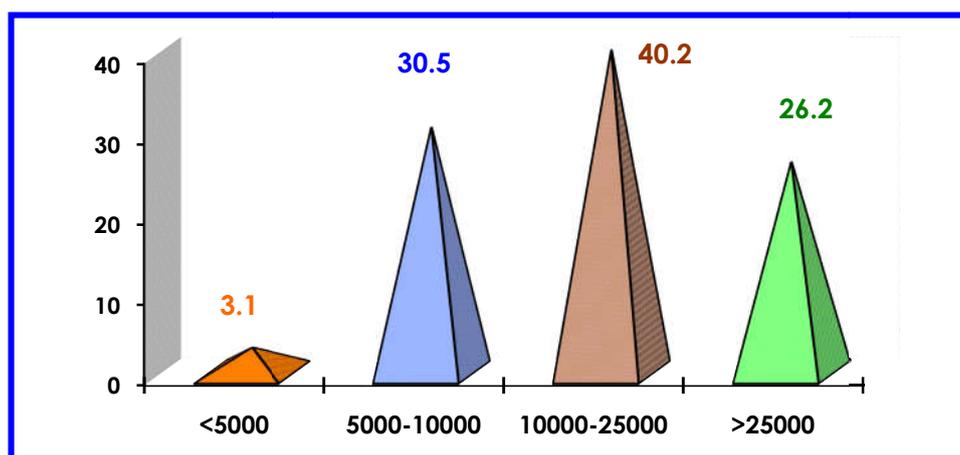


Figure 1. Percentage distribution of the households by Monthly income

5) To increase memory 6) To win in challenge 7) To avoid feeling afraid 8) To improve confidence 9) Easily available 10) Interest 11) Time pass 12) Sufficient pocket money, 13) Low price 14) Problem with parents. Reasons for substance abuse and age of students in the study area are explained in (Table 2). It shows that 97(60.6%) of the students were used substance due to any of three reasons who belongs to 15- 16 age group and 168(69.4%) belongs to 16-17 age groups who have three reasons and also 16(88.9%) of students belong to 17-18 age groups who started substance abuse habits because of any of three reasons. It is very clear that 281(66.9%) of the students were experienced substance abuse by having any of three reasons. Table 3 indicates that, smoking habit and age of the students who involved an intervention study in the study area. Before intervention study, number of students who had smoking habits were high students 88(21.0%). It is quite interesting that, after intervention, the number of students who had habit of smoking was reduced as 32(7.6%). Around 35(21.9%) were smoked before intervention study but after it this percentage was reduced to 11.3%. Followed by 50(20.7%) before intervention who belong to 16-17 age group, after intervention percent was reduced as 11(4.5%). It is clear from the table that, intervention programme was more effective to reduce the number of smoking among students. Table 4 reveals Religion and smoking habit of students among the sample population. Before intervention study, 19(38.0%) of the students were used substance who belongs to Muslim community followed by Hindus 38(20.5%) and Christians 29(17.1%). Intervention study was more effective in case of reducing the number of smokers among the study population. It concludes that 88(21.0%) were smokers before intervention study. As a result of conducting an interventional study against substance abuse, number of smokers was reduced as 32(7.6%). So it is clear this intervention study has vital role to reduce the number of smokers.

Table 5 shows that subject of education and smoking habit of students of sample population. Smoking habit of students was common irrespective of subjects of education in the study area. Before intervention study, 7(25.9%) of students pursuing Humanities followed by 28(21.4%) pursuing Arts subject and 53(20.2%) pursuing Science subject. After intervention study the number of smokers was reduced in all categories such as Humanities 5(18.5%), Arts 28(21.4%) and Science 53(20.2%). It concludes that, before intervention smoking habit of students were 88(21.0%) but after interventions study the percentage of students who smokers were reduced as 32(7.6%).

Figure 1 shows that just little greater than one-fourth of the students report that they had monthly income of Rs. > 25000 110(26.2%). Around forty percent 169(40.2%) of the households in the study area had 10000 - 25000 rupees as their monthly income and thirty percent 128(30.5%) of the households had monthly income of Rs. 5000-10000. Only 13(3.1%) of them reported that their monthly income was less than 5000 rupees.

The information about students accessibility and exposure to information through media resources was assessed by asking how often students listened to the radio, watched television and read paper news/magazine. The exposure to mass media (reads newspapers, listens to radio and watches television) is shown in (Table 6). The students exposure to media was classified into two categories: 1) less frequently (less than five times expose to mass media (T.V, radio and newspaper) in a week) and 2) more frequently (more than five times expose to mass media in a week). The results show that around 322(76.7%) of students were more exposed to mass media and less than one fifth of students were less exposed to mass media 98(23.3%) in the study area.

DISCUSSION

Substance abuse is a patterned use of a substance in which the user consumes the substance in amounts or with methods which are harmful to themselves or others. The exact cause of substance misuse is impossible because there is not just one direct cause. However substance abuse and addiction is known to run in families. The present research study reveals that different substance abuse was prevalent in the study area. Sample population for the present study constitutes 420 boy students who had habit of chewing of selected Higher Secondary Schools of Kottayam district in Kerala State. Out of 420 students, (Table 3) 88(21.0%) of students who had smoking habits. Present shows that (Table 4) 19(38.0%) of the students were used substance who belongs to Muslim community followed by Hindus 38(20.5%) and Christians 29(17.1%). Study (Sinha, 2003) on Tobacco use among school personnel in 8 N-E states of India showed the prevalence of daily smoking ranged from 25.9% (Mizoram) to 12.8% (Arunachal Pradesh) and of smokeless tobacco use from 57.8% (Mizoram) to 10.7% (Assam). Daily smoking among men and women was similar in five states but not in Arunachal Pradesh (men 15.0%, women 4.0%), Nagaland (men 18.7%, 5.0%), and Tripura (men 18.6%, women 0.4%). In four states cigarette

was the most prevalent form of smoking (range 41% to 55%) whereas in other four states it was bidi (range 34% to 53%). Over 50% of current smokeless tobacco users reported using betel quid in six states, except Mizoram (20%) and Sikkim (16%). Study done by Sinha 2004 had found prevalence of smoking to be 19.4% in school students of Bihar and also showed that 51.7% of school children abusing substances had a parent who smoked. In another study (Mittal, 1998), the age of first drug use for the various substances varied, however, most were introduced to these substances between the age of 19 and 23 years. One study (Mehta, 1993) among the 400 million individuals aged 15 years and over in India, showed that 42% use tobacco in one form or other; 72% of tobacco users smoke bidi, 12% smoke cigarette and 16% use tobacco in smokeless form. Poor decision-making and impulsive behaviour in the teenage years can then have lasting effects. Teens that start abusing alcohol or drugs at an early age are at much greater risk of developing an addiction later in life compared to those who misuse drugs later. Some people are able to use recreational or prescription drugs without experiencing negative consequences or addiction. For many others, substance use can cause problems at work, home, school & in relationships. Many, try drugs for the first time out of curiosity, to have good time, because friends are doing it, an effort to improve athletic performance or ease another problems like stress, anxiety, depression etc. Use does not automatically lead to abuse and there is no specific level at which drug moves from casual to problematic. It varies with individual. Drug abuse & addiction is less about the amount of substance consumed or the frequency and more (Scheier, 1999) to do with the consequences of drug use. Parents need to be aware of the increased risk for teens, and the factors that increase risk. Avoidance of drugs and alcohol at an early age, and friends who use them, is crucial to not becoming an addict.

Conclusion

Factors influencing substance abuse among students of Higher Secondary Schools were; peer pressure, media influence, frustrations, excess pocket money, copying of models, parental influence, pursuit of pleasure, readily availability of substances of abuse dysfunction families due to unstable family, low income, long working hours of family members whose consequences are limited to quality family time, poor mentoring among others. Substance abuse is a very common and major problem related to health and social issues which is associated with comorbidities and complications. The initiation of substance abuse at early adolescence results in continuation of substance to the adulthood. Therefore, preventive strategies are required to be planned and suggested for substance abuse. Government should take up initiative and incorporate the problem and the adverse health effect of substance use in the school curriculum as early as primary level.

Recommendations

- Use of public education to create public awareness through acknowledgement of the importance of supporting parents and families at an early stage so that children and youth can benefit from growing up in a positive environment, thereby naturally building resistance against delinquent behaviour that lead to substance abuse.

- A comprehensive curriculum on substance abuse should be introduced in secondary schools to neutralize the influence of peer pressure in influencing students into substance abuse.
- The areas around secondary schools should be made drug free so as to help in reducing the prevalence of commonly abused substances like alcohol, cigarettes etc.

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