RESEARCH ARTICLE

SUBSTANCE ABUSE AMONG MEDICAL STUDENTS IN A MEDICAL COLLEGE AT NORTHERN KERALA

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ABSTRACT

Background: Substance abuse has a broader perspective than an individual, emphasizing the role of society and culture. And the relevance of substance abuse in medical students is of more growing concern. **Objectives:** To assess knowledge, attitude and practice substance abuse among medical students. **Materials and Methods:** A Cross Sectional study was done among 200 medical students with predesigned questionnaire. Respondents were graded in to good knowledge and attitude, if they responded to at least 50% of the questions correctly and poor knowledge and attitude if less than 50% of the medical students fail to answer. Practice was reported good among students, if more than 80% of them were not consuming the substances and bad if about 30% were involved in substance usage. **Results:** Majority of students have adequate knowledge and positive attitude towards substance abuse. 4.5% students are males who were found to be smokers. None of them use alcohol or any form of addictive drugs. **Conclusion:** Since few of the students are smokers adequate counseling sessions have to be arranged .Some do not have adequate knowledge regarding substance abuse, so more training sessions need to be incorporated into medical curriculum.

INTRODUCTION

Substance abuse and its associated problems are global concern in the present era. It poses a significant threat to the health, social and economic aspects of families, communities and nations. It had been proven to cause plethora of Non communicable disease (WHO, 2018). 5.4 % of the global burden of disease is contributed by Alcohol and illicit drug use (Gowing *et al*., 2015). Worldwide, among 12 or old age group 9% are addicted to alcohol (Volkow, 2005). A 2016 report published by the World Cancer Research Fund International found stronger links between alcohol use and stomach cancer (Connor, 2016), and strong evidence that alcohol causes cancer in seven sites of the body and probably others. Smoking was the second leading risk factor for early death and disability worldwide in 2015 (World Cancer Research Fund International, 2016). It has claimed more than 5 million lives every year since 1990, and its contribution to overall disease burden is growing, especially in lower income countries (Forouzanfar, 2015). Medical students, as tomorrow's doctors hold a unique place in society and have privileges and responsibilities different from those of other students. High quality standards of professional conduct and behavior are

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expected from this cohort. But daily stressors can be a cause for substance abuse and this poses risks to them and can lead to serious consequences on their effectiveness and fitness to practice as tomorrow's doctors (Goel, 2015). It is believed that substance use among physician's starts early in their career and the importance of studying the lifestyles of medical students to detect substance abuse is well recognized. Substance use including tobacco, alcohol and drugs is the most important cause of preventable morbidity, disability and premature mortality.

MATERIALS AND METHODS

A Cross Sectional study was done among 200 medical students of a tertiary medical college at Malappuram District, Kerala State, India. Sample size were calculated by 200 using the formula $4pq/d^2$ considering the prevalence of knowledge on substance abuse to be 86.6% and absolute error of 5%.(8) The sampling method was convenient sampling and the time period for sample collection was three months. A team of 4 medical students were trained with predesigned questionnaire. All MBBS students residing in hostel were in inclusion criteria. Those who were not willing to cooperate were excluded. The working definition of substance abuse is the consumption of substances like alcohol, tobacco and drugs like morphine, cocaine, sleeping pills, psychological medication, balm, whitener in amount harmful to their health and also affect their day to day activities. Respondents were graded in to good

knowledge and attitude if they responded to at least 50% of the questions correctly and poor knowledge and attitude if less than 50% of the medical students fail to answer. Good practice was reported good among students if more than 80% of them were not consuming the substances and bad if about 30% were involved in substance usage.

Process of Collection

MBBS students of 7 th semester will be trained and predesigned questionnaire will be given to assess the knowledge, awareness and practice. Respondents will be graded in to good knowledge if they responded to at least 50% of the questions correctly and poor knowledge if they answered to less than 50% of the questions correctly. Respondents will be graded in to good attitude if they get at least 50% of total score given to the questions regarding attitude and have bad attitude if they get less than 50% of the score. Practice will be reported as good among students if more than 80% of students are not consuming the substances and bad if about 30% of the students are involved in substance usage.

Data Analysis: Data was entered and coded into Microsoft Excel. Analysis was done using SPSS statistical software version 16. Descriptive analysis was done to describe knowledge, attitude and practices about substance abuse among medical students. Response to questions related to the knowledge about alcohol, smoking and drugs were coded such that correct answers were scored as 1 and incorrect answers were coded as 0. Frequency will be expressed in proportions and would be depicted as tables and graphs appropriately.
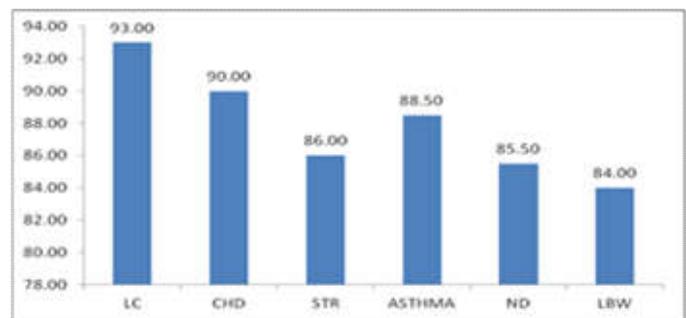
RESULTS

34% of the students were in the age of 22. Majority of people (67.5%) are from rural area.85.5% belong to upper socioeconomic classification according to Modified B.G Prasad Classification.

Table 1. Socio demographic profile of medical students

Age	Frequency	Percentage
19	10	5%
20	45	22.5%
21	55	27.5%
22	68	34%
23	19	9.5%
24	3	1.5%
Living Area	**Frequency**	**Percentage**
Rural	135	67.5
Urban	65	32.5
Socioeconomic status	**Frequency**	**Percentage**
1	163	81.5%
2	25	12.5%
3	6	3%
4	4	2%
5	2	1%

Majority (88%) of students are aware about the health hazards of smoking. Most of students (94.5%) have good knowledge about alcohol and its complications. 96% of students have good knowledge about drug abuse and its complications.89% students know sleeping pill are included in drugs causing addiction.93% know morphine included in drugs causing addictions.95.5% know cocaine induce addiction and 76% students know psychological medicines cause addictions.

Chart 1. Knowledge regarding health hazards of smoking among medical students

INDEX
LC – lung cancer
CHD- coronary heart disease
STR- stroke
ASTHMA- aggravated asthma
ND- neonatal death
LBW-low birth weight

Table 2. Knowledge regarding alcohol abuse among medical students

Questions	Frequency	Percentage
1. Does alcohol reduces cognitive function?	189	94.5%
2. Does alcohol cause mental and physical illness?	188	94%
3.Does alcohol contain calorie?	109	54.5%
4. Does genetics have role in the genesis of alcohol addiction?	126	63%
5. Does alcohol stimulate appetite?	119	59.5%

Table 3. Attitude and Practice towards different abuses among medical students

Attitude	Frequency	Percentage
Attitude towards smoking	190	95.0
Attitude towards alcohol	187	93.5
Attitude towards drugs	153	76.5
Practice	**Frequency**	**Percentage**
Smoking	9	4.5%
Alcohol	-	-
Drugs	-	-

DISCUSSION

Addiction has a high impact to affect an individual's personality and mood, which can damage valuable relationships like marriages, friendships, employment, and others. It is very difficult to judge behavior of a person who is addicted on any given day. The persons living together would always be anxious about their safety and wellbeing. Longstanding fears such as this can then impact the way in which family members and friends interact with others beyond the circle of addiction. A study conducted by Elarabi H et al found that socio-demographic factors have an impact on attitudes and perceptions towards substance use (Elarabi, 1999). In another study by ML Van Ettan et al came to a conclusion that the gender differences in drug abuse are said to have their foundation in the very first stage of drug involvement and the opportunity to use drugs. If given the opportunity to use drugs, males and females are equally likely to use them (Van Etten, 1999). But in our study it was found that no females had any kind of abuse. 34% of the students were in the age of 22. Majority of people (67.5%) are from rural area.85.5% belong to upper socioeconomic classification

according to Modified B.G Prasad Classification. Siringi et al from Kenya reported a proportion of alcohol users of 23% (Newbury-Birch, 2000). But in the present study we couldn't get find any of the medical students using alcohol. In another study conducted in India, it was found to have overall prevalence of substance abuse of 25% (Himanshu, 2017). But we inferred that we had prevalence of 4.5% of substance abusers who were smokers only. In UK study it was found that frequency of current regular smoking (more than one cigarette or cigar per day) was 9% in men and 10% in women. 51% of men and 56% of women drank within the 'low risk' level of alcohol consumption. All those who reported having experimented with other illicit drugs had also taken cannabis and 12% of both sexes used cannabis 'monthly or more often (Newbury-Birch, 2000).

Conclusion

From this study we could find that majority of the medical students under the study are aware about substance abuse and its complications. Majority of students have positive attitude towards avoiding substance abuse. Only 4.5% students are substance abusers (only smokers) and all of them are males. In this study it was reported that none of the medical students use alcohol, or any other form of drugs. But one of the limitation of the study is, students in this age group may not reveal the truth about their practice Appropriate intervention, health education efforts, support and referral systems should be incorporated in school level to uproot this type of habits at early stage of life. Control efforts should not only be confined to secondary schools but extends to their places of residence so that influences in the home environment and the surroundings that contribute to drug abuse can be identified and controlled. Since few of the students are practicing smoking more awareness classes and counseling sections have to be given to the students. Some of the students do not have adequate knowledge about substance abuse, so more training should be incorporated in the curriculum.

Conflict of Interest – None.

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