

Substance Use Among Third year Medical Students of Nepal

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ABSTRACT

Background: Substance use is very rampant in a developing country like Nepal. Unfortunately, medical field is not exempt from it either. Substance use among medical students and doctors not only reduces their efficiency at present but also increases their DALY on long term. The main objectives of the study were to assess the prevalence of substance use among medical student and to find out whether substance use started before or after joining the medical school.

Methods: The study design employed for the research was descriptive cross sectional. A structured questionnaire about current use of tobacco, alcohol and marijuana was used to collect the data from third year students from eight medical and one dental college from across the country having 2006 batch.

Results: The overall response rate was 74.12% (N=510). Among those who responded, prevalence of substance use was 49.6%, of which 38.2% were Nepalese nationals and 11.4% were foreign nationals and 39% were male and 10.6% female. Alcohol based product users were 52.3%, tobacco based product users were 55% and marijuana users were 65.7% and all started using them after joining the medical school.

Conclusions: Almost half of the respondents were involved in some sort of substance use and more than half of those using started after joining medical school. Hence if proper measures are taken to address this then its prevalence can be significantly reduced if not eliminated completely.

Key words: cross sectional study, prevalence, substance use

INTRODUCTION

Substance use is very rampant in a developing country like Nepal. Government of Nepal has included control of “substance abuse including alcohol and tobacco” as one of the main interventions in Essential Health Care Service (EHCS).¹

Each cigarette is said to cut life by 11 minutes.² In an observation made for 50 years among smoking male British doctors, excess mortality has been observed in them than in their non smoking counterparts.³ Alcohol

has been revealed as one of the leading cause of death.⁴ Hence substance use among medical students and doctors not only reduce their efficiency at present but also increase their disability adjusted life in years (DALY) on long term.⁵

The objectives of the study were to assess the prevalence of substance use, to find out whether it started before or after joining the medical school, to compare it amongst male and female and to find the reasons for it.

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METHODS

A descriptive, cross-sectional was conducted among third year students of eight medical and one dental colleges from May 2009 to November 2009. Out of nine colleges, five colleges were from within the Kathmandu valley and four were from outside the valley. Ethical approval was taken from Kathmandu Medical College Institutional Review Board. Convenient sampling method was used in the research. Self prepared structured questionnaire, close ended, was used for data collection which was finalised after conducting a pilot study on Kathmandu Medical College students who were later not part of the actual survey. The questionnaire was anonymous and no particular student's or college's name has been disclosed. Privacy of the students and the colleges were maintained. All students were free to choose whether to participate or not in the research. The questionnaire mainly focussed on gathering data on use of cigarette, tobacco based products, alcohol and alcohol based products and marijuana. The questionnaires were mailed by courier and were self administered by the respondents. Those currently using substance (what ever the frequency may be) were categorised as substance users. Those who have abandoned substance use for at least a year or more were categorised as ex-users and others as non users. The data collection and statistical analysis were done by statistical package for social sciences version 13 for windows.

RESULTS

The overall response rate was 74.12% (N=510). Sixty three point five percent of the respondents were male while 36.5% were female. Ninety four point five percent of the respondents belonged to age group 20-25. Nationality wise distribution of the respondent showed that 65.9% were Nepalese while the rest were from other countries.

Overall prevalence rate of substance use was found to be 49.6%, of which 38.2% were Nepalese national and 11.4% were foreign national; 39% were male and 10.6% female. Fifty two point three percent alcohol based product users, 55% of tobacco based product users and 65.7% of marijuana users started using them after joining the medical school. Prevalence of substance use was more among those staying in hostels and in rented houses nearby the college than among those living at their respective homes. The study showed that there were no users of marijuana alone i.e. it was always associated with use of tobacco based products or alcohol based products.

Table 1. Distribution of Substance use.

Consumption	Frequency (%)
Alcohol based products	108 (21.2)
Tobacco based products	12 (2.4)
Alcohol and Tobacco based products	66 (12.5)
Tobacco and Marijuana	1 (0.2)
Alcohol and Marijuana	2 (0.4)
Alcohol, Tobacco and Marijuana	52 (10.2)
Alcohol, Tobacco, Marijuana and Others	10 (2)
Others	2 (0.4)
None users	257 (50.4)
TOTAL	510 (100)

Table 2. Sex-wise distribution

Start of Consumption of	Sex	
	Male (%)	Female (%)
Alcohol		
Before joining medical school	94 (50.00%)	21 (39.60%)
After joining medical school	94 (50.00%)	32 (60.40%)
Tobacco		
Before joining medical school	53 (43.80%)	10 (52.60%)
After joining medical school	68 (56.20%)	9 (47.40%)
Marijuana		
Before joining medical school	18 (29.00%)	5 (100%)
After joining medical school	44 (71.00%)	-

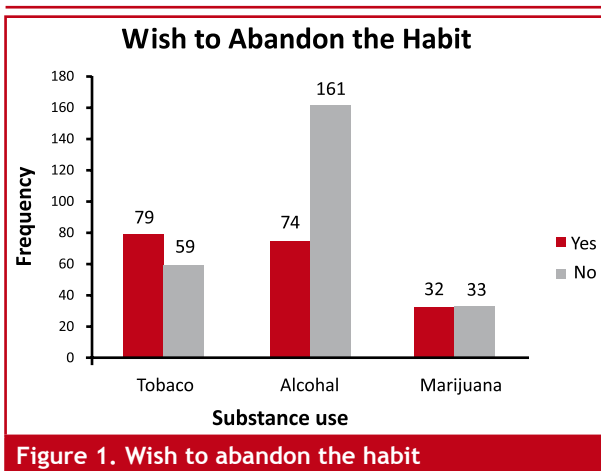
Table 3. Living place wise distribution of start of substance use.

Start of Consumption of	Home (%)	Hostel (%)	Rented house (%)
Alcohol			
Before joining medical school	24 (49.00%)	55 (50.50%)	36 (43.40%)
After joining medical school	25 (51.00%)	54 (49.50%)	47 (56.60%)
Tobacco			
Before joining medical school	11 (61.10%)	31 (47.00%)	25 (37.50%)
After joining medical school	7 (38.90%)	35 (53.00%)	35 (62.50%)
Marijuana			
Before joining medical school	6 (50.00%)	8 (29.60%)	9 (32.10%)
After joining medical school	6 (50.00%)	19 (70.40%)	19 (67.90%)

Table 4. Reasons for substance use.

Reason for consumption	Alcohol (%)	Tobacco(%)	Marijuana (%)
To relieve frustrations of studies	18 (7.70%)	28 (20.40%)	6 (9.00%)
Peer Pressure	18 (7.70%)	3 (2.20%)	2 (3.00%)
Fun sake, just for trip	152 (64.60%)	56 (40.90%)	45 (67.20%)
Cant help it, can't resist it	47 (20.00%)	50 (36.50%)	14 (20.80%)

Survey also showed that 16.6% alcohol users, 15.2% of tobacco users and 9% of marijuana users had required medical attention as a consequence of it like road traffic accidents, intoxication. Twenty point five percent of substance users felt subjectively that they were dependent on the substance they were using.

**Figure 1. Wish to abandon the habit**

DISCUSSION

The overall response rate was 74.12% which was calculated after excluding the respondents who gave logically impossible data. E.g. Incongruous data, smoking more than 200 sticks per day etc. Among the substance users majority were Nepalese nationals and male, which may be due to population under these entities being proportionately higher from amongst the respondent population. The respondent population constituted 66% Nepalese population and 63.5% male population respectively. The higher number of the male population for substance use could also be owed to the social structure in this part of the world which provides more freedom to the males than the females.

The overall prevalence rate of substance use calculated from our study was 49.6%. Prevalence rate of substance use amongst male was calculated to be 61.4% and among female it was 29.03%. Similar study conducted by Shyangwa et al⁶ showed total prevalence rate of 56.5% (last year used) and among female the prevalence rate was 32.2%. In the same study it was seen that 15% of the male used marijuana while no female ever used it.⁶

In our research however prevalence of marijuana use was found to be 18.5% and 7.69% of those were female. Alcohol was found to be the most widely used substance in our study. It was found among 94.15% of substance users. In study of Shyangwa et al⁶ too, alcohol was the commonest substance used with 90% of substance users using it.

Our study showed that more than fifty percent of the current users of tobacco based products (55%), alcohol based products (55.3%) and marijuana (65.7%) started using them after joining the medical school which was in contrast to findings of Coren et al⁷ where it was seen in general decrease in use of substance rather than increase after entering medical school, exception being for wine. In our study the subjective sense of dependency among the substance user was seen to be 20.55% which was much higher than 5% found in research conducted in India.⁸ However the higher rate may be because of our conducting subjective analysis rather than objective one for dependence. Furthermore cultural variation like the way of thinking, independent life style of the people between Nepal and other countries could be other possible reason for differences as well.

The study was conducted on a limited time so it is bound to have some limitations as in data collection, sampling method, representation of the population as well as in data analysis. However as far as possible, we tried to narrow down the limitations by regularly consulting with expert in the field e.g. statistician, research consultants and with our project supervisor.

CONCLUSIONS

Almost half of the respondents were involved in some sort of substance use and more than half of those using started after joining medical school. Substance use was seen more among those living in hostels and in rented houses nearby the campus. Majority of students use substance for the sake of fun which they use as a source of entertainment to deviate their minds from the pressure of studies. Hence, if measures like proper counselling and guidance of students are taken to address the problem of substance use, then its prevalence can be significantly reduced if not eliminated completely.

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