PREVALENCE OF SMOKING AMONG MEDICAL STUDENTS IN KATHMANDU, NEPAL

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ABSTRACT

Smoking is a leading risk factor for early death and disability worldwide. Medical students and physicians are the ideal persons to educate patients about hazards of smoking. Today's medical students will play a prominent role in future to prevent and control tobacco use. Still, the problem of smoking among the medical students is common worldwide but the pattern and extent of the problem varies from place to place. Aim of this study was to find out prevalence of smoking among medical students, factors contributing to their smoking habits, their exposure to passive smoking and to know about their knowledge about smoking related health problems. This is a cross sectional study, conducted among all first and second year MBBS students during July-September 2018. Self administered questionnaire were given to all the participants and collected after it was filled up. One hundred seventy four students participated in the study. Prevalence of smoking was 5.2% and all the students who smoked were male. The most important cause for initiation of smoking was peer pressure (56%). The average cigarettes smoked was seven sticks per day. Though 80% students knew about hazards of passive smoking, almost half of them were exposed to passive smoking. In our study we found that most of the students do not counsel their patients regarding hazards of smoking and only few participants were found to advise and encourage their patients to quit smoking.

KEYWORDS

Hazards, medical students,
passive, smoking

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INTRODUCTION

Smoking is the leading cause of preventable death worldwide.[1] According to Global burden of diseases 2015, smoking was the second leading risk factor for early death and disability worldwide in 2015 and has claimed more than five million lives every year since 1990.[2] About one billion people smoked tobacco worldwide in 2015 and 68% of the smokers live in middle income countries.[3] In 2008, WHO estimated that if the pattern of smoking continues, tobacco-attributable mortality will exceed eight million deaths per year by 2030.[3]

Tobacco is the most important avoidable risk for non communicable disease such as cancer, chronic lung diseases, and cardiovascular diseases like hypertension, ischemic heart diseases and stroke.[4] With the increasing prevalence of smoking in developing world over the years, non communicable diseases will double the burden of infective and non-infective diseases.[5] Cessation of smoking reduces overall mortality, improves prognosis of patients with coronary artery diseases and lung cancer, and increases survival rates in patients with chronic obstructive lung diseases.[7]

Prevalence of smoking among students was found to vary based on different specialty of subjects they choose. Students of sciences and professional colleges were those with the lowest prevalence.[7] Physicians are in an ideal position to advise and educate patients about dangers of smoking and they act as role models who may unintentionally affect smoking behavior of others. Their own smoking habit may cloud their judgment and influence their ability to adequately counsel smokers.[8] Today's medical students will play a prominent role in future efforts to prevent and control tobacco use.[9] Still, the problem of smoking among the medical students is common worldwide but the pattern and extent of the problem varies from place to place.[8] And even medical students lack relevant knowledge about epidemiology of smoking, consequences and health risk associated with tobacco use and benefits of quitting smoking.[1]

Though smoking among medical students is a serious problem we have only few data in our part of the world. The aim of this study was to find out the prevalence of smoking among the medical students, factors associated with their smoking habits, to find out their exposure to passive smoking and also to know about their knowledge regarding smoking related health problems.

MATERIALS AND METHODS

This was a cross-sectional observational study done among the first and the second year MBBS students of Nepal Medical College Teaching Hospital during July-September 2018. Ethical approval was obtained from Nepal Medical College, Institutional Review Committee. All the participating students were informed about the objective of the study and verbal consent was taken. Self administered anonymous questionnaire which was constructed by the researchers was given to all the participants and collected after it was filled up. Students who did not give the consent or did not fill the questionnaire were excluded from the study. Data was entered and analyzed using SPSS-16.

RESULTS

The survey was carried out among 214 MBBS students (124 male and 90 female) of NMCTH from first and second year. Out of them, 174 students responded with the overall response rate of 80.5%. Responders were 101 male and 73 female.

The age of the students ranged from 18 years to 26 years with mean age of 20.12 years. Among the responders (174), 42% were female and 58% were male. None of the participating students were married.

The prevalence of smoking was 5.2% and all of the students who smoked were male as shown in Table 1.

Table 1: Prevalence of smoking

	n	Smokers	%
Particitants	174	9	5.2%
Male	124	9	7.25%
Females	90	0	0%

Among the smokers, 50.38% started smoking before joining medical school with mean age of 16.8 years. The causes of smoking was study pressure in 22%, peer pressure in 56% and was not specified in remaining 22% (Fig. 1).

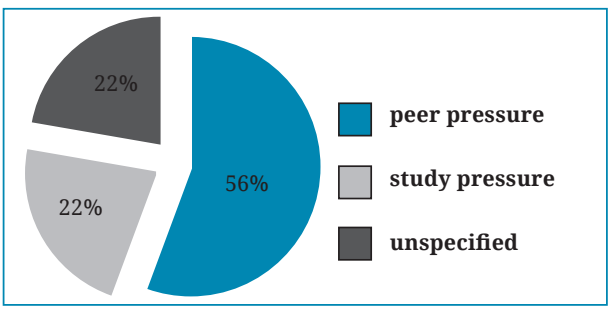

Fig. 1: Cause of initiation of smoking

Number of cigarettes consumed in average was seven sticks per day. It was also seen that, 66% of

the smoker had thought of quitting smoking and 55% of them even tried to quit.

Fifty eight percentage of the smoker had friends who smoked and 16.7% had family members who smoked. Though 80% of the students were aware about hazards of passive smoking, more than half of them were unable to avoid passive smoking. Among these passive smokers, active smokers were friends (43%) and family members (9.8%).

As per their knowledge of smoking in relation to different diseases, 96.6% knew that smoking was related to lung cancer, 90.2% to hypertension, 96% to COPD, 85.1% to heart diseases and 82.8% to stroke. Only 66.7% of the students were aware that smoking is related to intra-uterine fetal death (Table 2).

Table 2: Knowledge of smoking in relation to different diseases

	n	%
Lung cancer	168	96.6
Hypertension	167	96
COPD	116	66.7
Intrauterine fetal death	157	90.2
Heart diseases	148	85.1
Stroke	144	82.8

It was also seen that 34.5% of the students talk to their patients regarding the hazards of smoking and only 33% of the students during their community visit encouraged their patients to quit smoking.

DISCUSSION

As seen in the result above, the response rate in our study was 80.5%. Similar response rate was seen in a study done by Jradi *et al* where the response rate was 89%.[1] In another study done in Cameroon the response rate was 82.7%.[4] whereas study done from King Saud University demonstrated the response rate of 67%.[9] In our study the prevalence of smoking was 5.2% which was comparable with the study done in Laos' among the Medicine, Pharmacy, Dentistry, Nursing, Medical Technology, Basic Sciences and Postgraduate Studies and Research workers where the prevalence was 5.1%.[10] The prevalence in our study is lower from that of other studies done at multiple sites (5.1 vs 6.1 to 17%).[8,11,12,13]

Studies had shown that the prevalence of smoking in male medical students was higher than in females.[14,15] A study done in secondary school in Cameroon in 2015 showed that prevalence of smoking was 20% in male and 5.3% in female.[4] Similarly, Kooma *et al* did a study in Philippines and found that prevalence of current smokers among male students were higher than female students (10.1% vs. 4.1%).[12] In our study, prevalence was 8.9% in male medical students and none among females.

Among the medical students who smoked, most of them started smoking before joining medical school with mean age of 16.8 years of age. Similar finding was found in a study done in Somaliland where the mean age of starting smoking was 16 years.[16]

Peer pressure was the most important cause of initiation of smoking in medical students in a study by Singh *et al* where 94.4% of the smokers smoked due to peer pressure.[17] Similar result was found in a study done by Poudel *et al* from Dharan where the most common cause for initiation of smoking was also peer pressure (73.2%).[18] Even in our study, we found that leading cause to start smoking was peer pressure (55.5%) which was still the highest among the influencing factors. Other less common cause was study pressure (22%). In our study the average number of cigarettes smoked was seven per day which was comparable to the result done in Sudan.[8]

Fifty eight percentage of the medical students who smoked in our study had friends who smoked. In a study done by Reda *et al* also it was seen that having friends who smoked had eight fold increase in the risk of smoking compared to non-smoking friends.[19] Similarly, a study done in Karachi showed that students whose friends are smokers were five times more likely to smoke compared to those whose friends are non-smoker.[20]

In contrast to other studies, parental smoking was only 9.8% among the smokers in our study. This is different from the study done among the medical students by Singh *et al* which showed the prevalence of smoking in parents of the smoker medical students to be 52%.[16]

Eighty percentage of the participants knew about passive smoking in our study. Similar finding was seen in other study done by Jradi *et al* where it was 75%.[1] Though large proportions of participants were aware of passive smoking in our study, 43% were exposed to passive smoking by friends and 9.8% by family members.

In our study, more than 90% of the students were aware of harmful effects of smoking to different diseases like lung cancer, chronic obstructive pulmonary diseases and hypertension. More than 80% of the students knew that it is related to stroke and heart diseases and only around 66% had knowledge that it is related to intra-uterine fetal death. This result is different from the result from other study done in Sudan where only the final year students had knowledge about the relation of smoking with these diseases.[8]

Regarding the counseling of the patients, it was seen that only 34.5% of the students talk to the patients regarding the hazards of smoking and

only 33% of them counsel their patients to quit smoking. This is different from the result in other study done where 82% of the students advise their patient to quit smoking.[11] This could be due to lack of confidence in our medical students to counsel their patients or could be due to lack of knowledge about different smoking cessation methods.

In conclusion, the prevalence of smoking among the first and the second year students was 5.2% and all the smokers were male. The average cigarettes smoked was seven stick per day. Most common cause for initiation of smoking was peer pressure. Though most of the students knew about the hazards of passive smoking, almost half of the students were exposed to passive smoking. Most of the students did not counsel regarding smoking to their patients and only few advised them to quit smoking.

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