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A cross sectional study on tobacco and alcohol abuse among medical college students

Avi Singh, Pratibha Gupta*, Mrinal R. Srivastava, Zeashan H. Zaidi

Department of Community Medicine, Era's Lucknow Medical College and Hospital, Lucknow, Uttar Pradesh, India

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*Correspondence:

Dr. Pratibha Gupta,

E-mail: pratibha_jayant@yahoo.co.in

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ABSTRACT

Background: Alcohol and tobacco consumption is now considered a serious public health problem. Together, both alcohol and tobacco abuse can cause substantial health related morbidity and mortality. This study was done to assess the patter of tobacco and alcohol abuse among medical college students of Lucknow district, Uttar Pradesh, India. The objective of the study was to assess the pattern of tobacco and alcohol abuse among medical college students of Lucknow district.

Methods: A questionnaire based cross sectional study was carried out among 116 first year MBBS students of Era's Lucknow Medical College, Lucknow. The questionnaire was based on outlines of GATS (Global Adult Tobacco Survey) & Global Information System on Alcohol and Health (GISAH).

Results: 61.29% males and 8.24% females abused both tobacco and alcohol. Of all the tobacco users, 70.97% males and 15.29% females consumed cigarettes. In case of alcohol consumption, 80.65% males and 35.29% of females consumed some form of alcohol. Overall 43% of respondents abused alcohol and tobacco to relieve stress. Attempt to quit alcohol and tobacco was at 44.6% overall.

Conclusions: This study has shown that alcohol and tobacco are major substances being abused by young medical graduates, in spite of universal knowledge that they are source of major non communicable diseases.

Keywords: Alcohol, Tobacco, Abuse, Medical students

INTRODUCTION

Alcohol and tobacco consumption is now considered a serious public health problem. Globally, tobacco use is the single most common cause of preventable deaths. Risk of death due to tobacco abuse is all set to rise from 1.4% in 1990 to 13.3% by 2020. According to WHO projections, India will witness the highest rate of tobacco related deaths during the period 1990-2020 when compared to other countries. Severe physical, psychological, and economic implications are experienced when youth and adolescents fall prey to tobacco abuse. ²⁻⁴ Alcohol use is also prevalent among the

youth of country and medical students are also not an exception to this. There has been significant rise in alcohol consumption among the youth.⁵

Together, both alcohol and tobacco abuse can cause substantial health related morbidity and mortality. As the medical students develop and study in the same socio cultural environment during early adolescence period with their present nonmedical peers, their behaviour regarding the use of tobacco is expected to be akin, to some extent, to that of their nonmedical peers, at least at the beginning. At college level, gathering of in depth knowledge and witness of burden of tobacco and alcohol

related diseases and exposure to more stringent antitobacco and anti-alcohol environment may induce, over the course of time, some form of behavioural change in respect of tobacco and alcohol use among medical students.

METHODS

Study design

This is a questionnaire based cross sectional study conducted among medical college students of Era's Lucknow Medical College, Lucknow.

Study population

The questionnaire was administered to students of 1st year professional course. All students who gave consent were included in the study. Out of 150 first year students, 116 gave consent and were included in the study. Study was conducted between September 2016-October 2016.

Data collection

The questionnaire was made with reference taken from WHO Global Youth Tobacco Survey (GYTS) and Global Information System on Alcohol and Health (GISAH).

The questionnaire included data regarding age distribution of respondents, pattern of alcohol and tobacco abuse, consumption pattern of alcohol and tobacco, reason for abusing alcohol and/or tobacco and quit rates. Users of tobacco /alcohol were defined as "exposed users" who have taken alcohol/tobacco at least once in their lifetime, and "non exposed users" as those who have not taken tobacco/alcohol ever in their lifetime. After seeking approval of college administration and verbal consent from the respondents, anonymous data were collected from them.

Data analysis

Data of the study was analyzed using SPSS software ver. 16. Test of significance applied was Chi- square test and p<0.05 was taken as statistically significant.

Ethical clearance

Ethical clearance for the project was given by the college ethical board.

RESULTS

Among the 116 students who took the survey, 85 were female and 31 males. Age distribution was between 17-21 years (Table 1).

Table 1: Age distribution of respondents.

| Subject | Age distributio | Total (%) | | | | |
|---------|-----------------|-----------|-------|-------|-----|-----------|
| | 17-18 | 18-19 | 19-20 | 20-21 | >21 | |
| Male | 8 | 17 | 3 | 3 | 0 | 31 (26.7) |
| Female | 43 | 31 | 7 | 4 | 0 | 85 (73.3) |

Table 2: Pattern of abuse of alcohol and tobacco

| Smoking & drinking habit | Male (n=31) | | Female | Female (n=85) | | Dwalna |
|--------------------------|-------------|-------|--------|---------------|------------|---------|
| Smoking & trinking habit | No. | % | No. | % | Chi square | 1 value |
| Smoke | 4 | 12.90 | 6 | 7.06 | | |
| Consume Alcohol | 6 | 19.35 | 23 | 27.06 | | |
| Both | 19 | 61.29 | 7 | 8.24 | 43.5 | < 0.001 |
| None | 2 | 6.45 | 49 | 57.65 | | |
| Total | 31 | 26.72 | 85 | 73.28 | | |

Table 3: Pattern of tobacco and alcohol consumption.

| | Male (n=31) | | Female (n=85) | | Chi assesses | Davalera |
|-----------------------------|-------------|-------|---------------|----------|--------------|----------|
| | No. | % | No. | % | Chi square | P value |
| Type of tobacco consumption | | | | | | |
| Cigarette | 22 | 70.97 | 13 | 15.29 | | |
| Bidi | 0 | 0.00 | 0 | 0.00 | 0.58 | 0.446 |
| Chewable tobacco | 1 | 3.23 | 0 | 0.00 | | |
| Type of alcohol consumption | | | | | | |
| Beer | 11 | 44.00 | 7 | 23.33 | | |
| Whiskey | 4 | 16.00 | 3 | 10.00 | | |
| Vodka | 5 | 20.00 | 17 | 56.67 | 7.69 | 0.053 |
| Rum | 5 | 20.00 | 3 | 10.00 | | |
| Total | 25 | 80.65 | 30 | 35.29 | | |

| Table 4: | Reason | for | alcohol | tobacco. | ahuse |
|----------|--------|-----|----------|----------|--------|
| Table 4. | Neasun | 101 | aicumui/ | tubaccu | anuse. |

| Reason to take up | Male (n=31) | | Female (n=85) | | Chi asusans | Davolaro |
|------------------------------------|-------------|-------|---------------|-------|-------------|----------|
| tobacco/alcohol | No. | % | No. | % | Chi square | r value |
| Peer pressure | 6 | 20.69 | 4 | 11.11 | | |
| Stress | 11 | 37.93 | 17 | 47.22 | 1.28 | 0.527 |
| To experiment with alcohol/tobacco | 12 | 41.38 | 15 | 41.67 | | |
| Total | 29 | 93.55 | 36 | 42.35 | | |
| Ever tried to quit | | | | | | |
| Yes | 11 | 37.93 | 18 | 50.00 | 0.947 | 0.331 |
| No | 18 | 62.07 | 18 | 50.00 | | |
| Total | 29 | 93.55 | 36 | 42.35 | | |

Out of 31 males 29 abused alcohol /tobacco or both and out of 85 females 36 abused tobacco/alcohol or both. Also it was found that 61.29% male respondents consumed both alcohol and tobacco together, whereas consumption of alcohol in females was 27.06% (Table 2).

Tobacco abuse was limited to cigarettes with only 1 male respondent (3.23%) taking chewable tobacco. In alcohol consumption it was seen that while male respondent preferred beer (44%) female respondents were preferring vodka (56.67%) as a drink (Table 3).

The most common reason for uptake of alcohol and tobacco consumption was to experiment with alcohol/tobacco among male respondents (41.38%) whereas female respondents started consumption due to stress (47.22%). While 50% of female respondents have tried to quit alcohol/tobacco consumption, only 37.93% of males have tried to quit (Table 4).

DISCUSSION

This study was done with the aim to know about the tobacco and alcohol abuse among the medical college students. In our study it is seen that a high percentage male respondents (61.29%) abuse tobacco and alcohol together. This is significantly higher than the study done by Padhy, Das, Sahu, Parida where prevalence was 37.22%. The abuse of tobacco and alcohol abuse in females were consistent with the findings of Padhy et al at 7.22% versus ours at 8.24%. Also when compared to study done by Kumari, Nath on male medical graduates, the prevalence of tobacco abuse was significantly higher in our study (74.19% versus 28.8%). Tobacco abuse was also significantly higher in females at 15.29% versus 2.9% as stated by Chaterjee et al at 2.9%.

Like our study, cigarette smoking was the most common form of tobacco abuse in CARRS study done by Berg et al in individuals of Chennai, Karachi and Delhi. However while prevalence of cigarette smoking was 22.7% and 1.4% in males and females respectively in their study, our study showed it to be 70.97% for males and 15.29% for females.

Considerable difference was seen in our study for the reasons why the respondents took alcohol and/or tobacco. Our study found that the main reason for taking up alcohol and/or tobacco in both males and females was due to stress (43% overall), followed by the curiosity of alcohol and tobacco (41.5% overall). However in study done by Mohanan et al equal percentage of respondents i.e. 25.92% used tobacco for stress relief, curiosity and peer pressure. However Ramanan et al found in their study that 44.4% of respondents too alcohol for fun or desire to taste, thus showing that curiosity about alcohol is a strong reason for its consumption. 11

In our study overall 44.6% of respondents tried to quit both alcohol and tobacco which is somewhat closer to the findings of Arora et al' where the attempt to quit substance use was 59.6%. 12

A major limitation was that only 1st year MBBS students were taken in the study and thus excluding students of other courses and residents of the hospital. Also there was uneven ratio of male to female in the study, with more respondents being females.

CONCLUSION

This study has shown that alcohol and tobacco are major substances being abused by young medical graduates, in spite of universal knowledge that they are source of major non communicable diseases.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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