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ANTECEDENTS OF SMOKING AMONG STUDENTS OF LOWER-MIDDLE INCOME GROUP

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Abstract:

The usage of tobacco (in any form) among the youngsters of lower-middle income countries has hither remained as an underexplored research area. Even though 80% of the smokers around the world reside in lower and middle-income countries, and falls within the age group of 18-26 years, the predictors of smoking appear to have contextual nuances. World Bank categorizes Pakistan as a lower-middle income country. Therefore, the current study aims to explore the predictors of smoking among students in the context of Pakistan. We conduct a cross-sectional study to collect data from both medical and non-medical students in Lahore, Pakistan. 384 close-ended questionnaires administered to both medical and non-medical students using the convenience-sampling technique. The findings of the current study recommend policymakers to invest time and resources to create awareness among students that could eradicate the potential factors of smoking.

Keywords: *Tobacco and Smoking*

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INTRODUCTION:

The use of tobacco leads to approximately 7 million deaths, worldwide every year. Out of 7 million, 6.11 million deaths caused due to direct use of tobacco; whereas 890,000 people die every year due to exposure to second-hand smoke of tobacco.The usage of tobacco prevails in different parts of the world in the form of cigarette, *bidi* and water-pipes. Tobacco smoke in any shape contains around 4000 chemicals, at least 250 of which are known asharmful and more than 50 cause lung cancer. Most importantly, Tobacco smoke kills half of its users.(World Health Organization, 2018)

In spite of the disastrous consequents of Tobacco smoke, the usage of Tobacco-related products (such as cigarette, bidis, and water-pipes) reached an epidemic proportion around the globe. Currently, the World Health Organization (WHO) Fact Sheet 2018 indicate that 1.1 billion people around the world indulge in smoking(World Health Organization, 2018). If the current trend tends to increase, then the number of smokers will reach 1.6 billion by the year 2025(Statista, 2017; World Health Organization, 2017, 2018).

Interestingly, 80% of the worldwide smokers live in low- and middle-income countries(World Health Organization, 2018). Smokers in low- and middle-income countries start to use tobacco at the age of twenty. Traditionally, researchers believed that Tobacco use begins in early adolescence, typically by age 16(Perry et al., 2018).

The consequents of smoking among young adults prove to be the nascent research terrains among researchers. A plethora of studies available in the literature that explore the disastrous consequents of direct and indirect use of tobacco(e.g., Frist, 2018; Perry et al., 2018; Soneji, Sung, Primack, Pierce, & Sargent, 2018; World Health Organization, 2009). Such as lung cancer, skin cancer, cardiovascular disease. Results show that consumption of tobacco three times more hazardous than HIV(World Health Organization, 2009).

Despite the catastrophic consequents of tobacco use, limited discussion is available in the literature that attempts to explore the antecedents of smoking among young adults. The available literature mostly exposes the smoking patterns among students(Zhu, Feng, Wong, Choi, & Zhu, 2004). Such as the difference in the smoking consumption among medical and non-medical students'.

Therefore, the above discussion highlights three significant challenges in the smoking literature. One is to identify the antecedents of smoking consumptions among young adults in low- and middle-income countries. Second is to determine the consumption pattern of smoking among medical and non-medical concerning identifying antecedents.

MATERIALS AND METHODS:

3. Methodology

3.1 Procedures

The current study intends to explore the factors thatmotivate medical and non-medical students from low- and middle-income families to indulge in smoking. Therefore, the present study designed as an explorative study that allows the researchers to identify the antecedents of tobacco or smoking.

3.2 The Participants

In the past, several studies identify negative consequents of usage of Tobacco on human health. These studies reveal that Tobacco smoke is the leading cause of tuberculosis (TB). Usage of TB increases the risk of TB more than two and a half percent, irrespective of alcohol use and other socioeconomic risk factors(World Health Organization, 2009).The World Health Organization publish a list of top ten high-burden tobacco use countries and Pakistan is on the fifth position in this list(World Health Organization, 2009, 2015). Moreover, the World Bank categorized Pakistan as a lower-middle income country(World Bank, 2018). Most of the smokers in the lower-middle income countries fall within the range of 20-28 years of age(World Health Organization, 2018). However, limited discussion available about the potentialantecedents of smoking among young adults falls within the 20-28 years of age.

Therefore, the population of the study consists of students, both male and female, studied at medical and non-medical institutes in Lahore, Pakistan. This study was conducted over a period ofone month. The current study intends to explore the potential antecedents of smoking among young adults (e.g., students),so we collect data through a questionnaire.
Since thepopulation was unknown regarding student, therefore, we calculate sample size using available online calculator with a95% confidence interval and 5% margin of error(Hulley, Steven R, Browner, Grady, & Newman, 2001). According to the suggested technique, a sample size of 384 respondents is appropriate for data collection. Only final year students considered for data collection i.e.5th-year MBBS, 4th year BDS and corresponding batches in non-medical institutes respectively. Questionnaires equally distributed to medical (192)

and non-medical (192) students through a convenience sampling technique. Out of 384, only 200 responses were received back with a response rate of 52%.The descriptive analysis of the data reveal that mainstream of the respondents were male (70.2%) and 12.4% females.

3.3 The Instruments

A close-ended Questionnaire used as an instrument to collect data from medical and non-medical students. Questionnaire consists of two parts. One is descriptive to explore the age and gender of selected participants. The second part encompasses list of potential causes that motivate students to indulge in smoking. The list of possible antecedents of smoking extracts from initial focus group discussion (FGDs). Primarily, we conduct an FGD with eight members to understand student perspective towards smoking. The findings of the FGDs reveal eleven factors (i.e. Academic work load Stress; Increased focus; smoking near finals; felt socially acceptable; friends thought it was cool; thought smoking was cool; peer pressure; lack of parental check; family influence; problems at home; and dissatisfaction with life) that create urge among students for smoking. To confirm the results of FGDs on a broader spectrum, we collect data from students of both medical and non-medical students. To elicit student response about eleven potential causes of smoking, apply Five-Point Likert Scale (from strongly disagree to strongly Agree). Moreover, this study utilizes SPSS 22.0 to analyze data collected through questionnaire.

RESULTS:

This paper aims to investigatethe possible causes of smokingamong medical and non-medical students.To analyze the data collected based on the initial findings of FGDs, frequency analysis, and clustered bar charts were applied using SPSS 20.The results of frequency analysis found a statistically significant difference between medical and non-medical students regarding the prevalence of smoking, i.e. 19% versus 52% respectively. It shows that non-medical students smoke four times more than medical students do (see *Figure* 1).

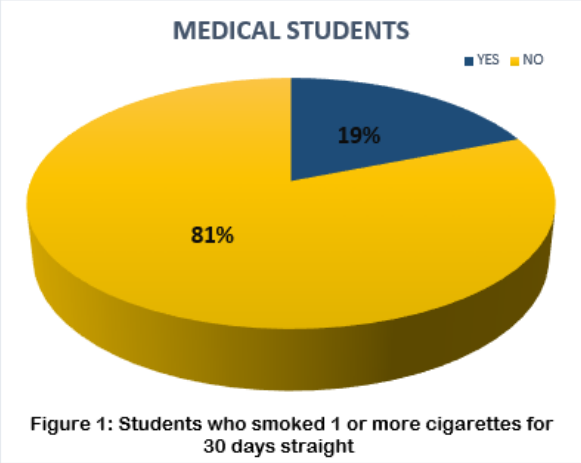


Figure 1: Students who smoked 1 or more cigarettes for 30 days straight

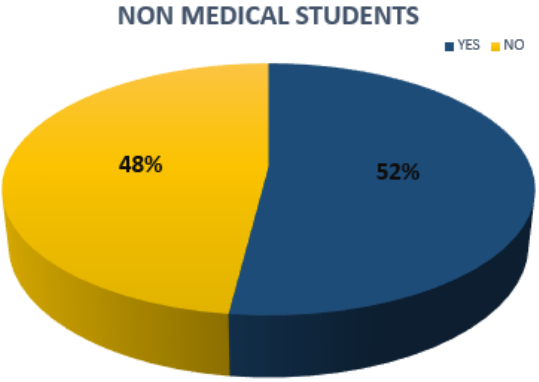


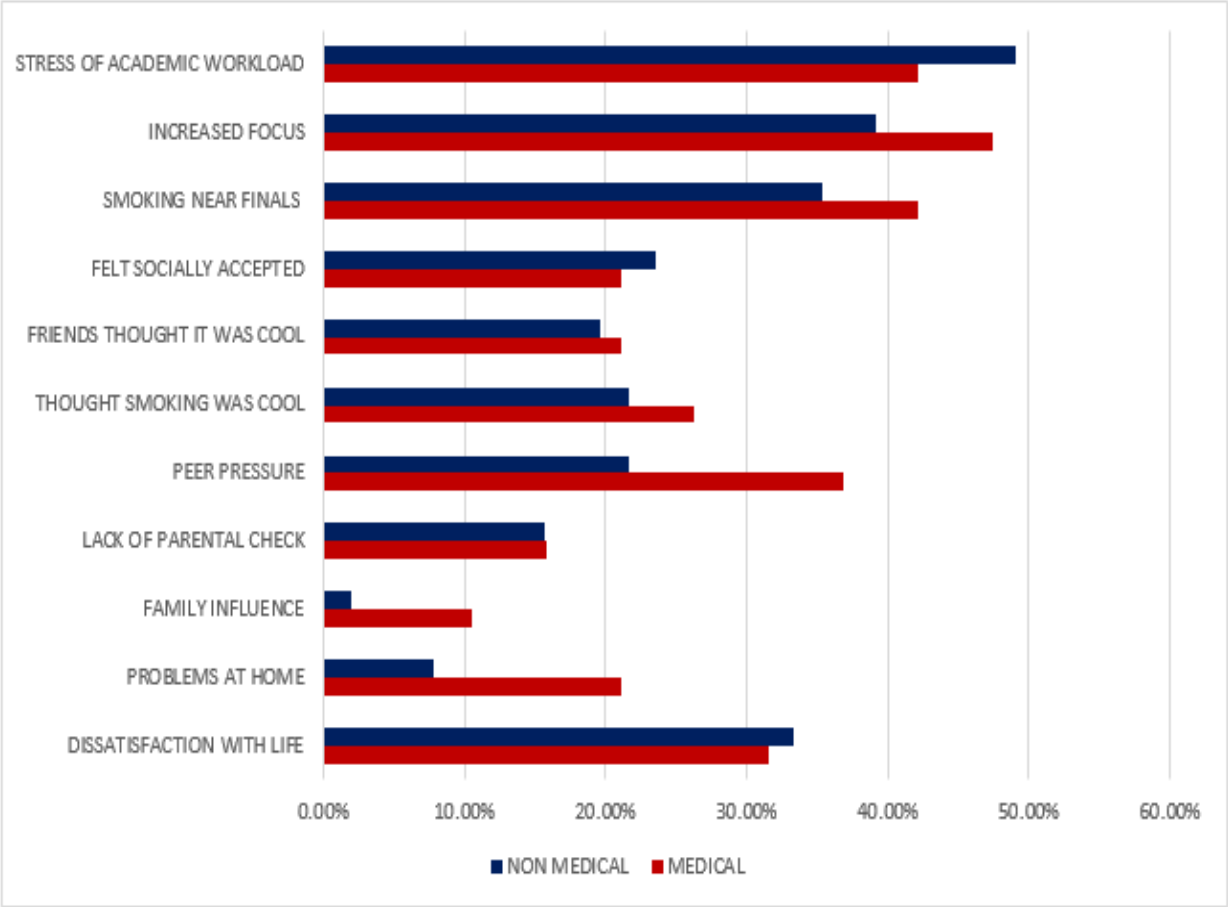
Figure 2: Students who smoked 1 or more cigarettes for 30 days straight

Figures 1 Smoking pattern of medical and non-medical students

Since non-medical student smoke four times more than medical students. However, the clustered bar charts depict that the possible causes to involve in smoking are similar for both medical and non-medical student (see Figure 2). The results of the clustered bar charts confirm that students smoke due to eleven potential factors as identified in the initial FGDs. Moreover, the results affirm that the possible causes of smoking among students are similarirrespective of whether they study medical or not. Furthermore, the *Figure 2* below shows that out of eleven possible factors, students more likely to smoke due to five causes,i.e.,the stress of academic workload, to increase focus, near final exams, peer pressure and dissatisfaction of life.

Also, the *Figure 2* below shows that most of the non-medical students (49%) indulge in smoking due to excessive stress of academic workload; whereas the majority of medical students (48%) smoke to increase focus. Besides to increasefocus, medical students tend to smoke more near to final exams,i.e. 43%. Peer pressure is another major cause of medical students (37%) to involve in smoking as compared to non-medical student i.e. 22%. Dissatisfaction with life increase tendency to smoke among non-medical

students (33%) other than medical students (31%). All the other remaining six causes of smoking among medical and non-medical students are equally important.



Figures 2 Result of Clustered Bar Charts

DISCUSSION:

The findings of the current paper reveal eleven possible causes that motivate students both medical and non-medical to indulge in smoking. Smoking is a significant threat tolower-middle-income countries like Pakistan. Majority of the smoker (80%) falls within the age group of 20-30 years of age. People within the age group of 20-30 years of age start technical education either medical or non-medical. Therefore, there is a need of time to explore the possible causes of smoking among medical and non-medical student to reduce the number of young smokers in lower-middle-income countries. For that reason, this paper has significant theoretical and practical implications.

The results of the present paper significantly contribute to the existing literature on smoking by identifying eleven possible causes of smoking among students both medical and non-medical. This paper pawed away for the future researcher to explore further factors that may influence smoking consumption of students. The findings of this paper suggest using other research design. For instance, longitudinal study, or experimental design to validate recently identified eleven factors and other possible factors of smoking among students as well. Also, the results of the current research proposed to understand why medical students more likely to smoke for increasing focus.

Based on the results of this paper, we give some suggestion to the health ministry and policymakers. Health ministry should introduce training programmes for young adults to tackle stressful situations in personal and professional life. Policymakers should develop a legislation to establish a proper counseling center that assists youngsters to maintain focus on positive and creative activities. That, in turn, helps young adults to stay positive even in the difficult time. It is also the responsibility of society to discourage the use of tobacco products such as cigarette, *bidis*, and water-pipes.

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