

Smoking Habit among College Students

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Abstract: *Smoking is one of the leading causes of preventable diseases and deaths in the world. In India due to smoking and use of smokeless tobacco one million deaths occurs every year. Therefore this cross sectional study was conducted in Nagpur region to find out the rate of prevalence of cigarette smoking in college students. A total of 600 students have been selected for this study from four education faculties and from each faculty 150 students have selected. However response rate of participants was 93%. Data collection was carried out using a pre-coded structured questionnaire. The questionnaire included Socio-demographic questions, questions on family & friend smoking history, questions on respondents smoking history & practices. In this investigation average prevalence estimated was 16.6%, however engineering students were found be dominant smokers with 22.9% prevalence rate and arts faculty students were found to have lowest prevalence rate (11.5%). With respect to financial status, majority of students were represents to lower income group (76.1%).*

Keywords: Smoking, College, Nagpur

1. Introduction

In the 1990s, approximately, a billion people smoked daily in the world, of which about 47% were adult men and about 12% adult women [1]. It was projected that mortality and morbidity from tobacco use will increase by almost threefold worldwide in 20 to 25 years [2]. The number of deaths attributable to smoking-related causes has increased to approximately half a million every year in the United States (US) alone [3, 4]; in India due to smoking and use of smokeless tobacco one million deaths occurs every year. About 13.3% of total deaths were expected in the year 2020 due to tobacco use in India [5]. Smoking is associated with millions of deaths every year around the world [6]. Adults with psychiatric disorders report higher rates of current and lifetime smoking [7, 8] higher rates of nicotine dependence [8], and lower rates of smoking cessation [8, 9], relative to those without psychiatric disorders.

Tragically, the epidemic is shifting towards the developing world, where 80% of tobacco-related deaths will occur within a few decades. The shift is caused by a global tobacco industry marketing strategy that targets young people and adults in developing countries [10]. Studies in developed countries show that cigarette smoking has dramatically decreased in recent years [11]. However, it is alarmingly increasing in low income countries [12, 13, 14]. Nearly 80% of more than 1 billion smokers worldwide live in low-and middle-income countries, where the burden of tobacco-related illness and death is significant.

Among tobacco products humans consume the most is cigarette [15]. Studies report that smoking and alcohol drinking is common among young people [16, 17]. The period when young people try smoking and when they are most biased towards tobacco addiction is adolescence [17]. Exposure to smokers (friends, parents, teachers), availability of tobacco, low economic status, poor academic performance, low self-esteem, lack of perceived risk of use, and lack of skills to resist influences to tobacco use are factors that are associated with cigarette smoking among the youth [18, 19, 20].

2. Method

This was a college-based cross-sectional study conducted in Nagpur city of Maharashtra state, India. Exclusively male students aged above 18 years and in the regular program of education were included in the study. Four colleges with different educational faculties were selected randomly. These colleges were containing more than four thousand students, out of them 600 were selected for this study. Forty two students were unable to give consent to participate in the study therefore final data was obtained from 558 students. Official permissions were also granted from the participating institutions.

Data collection was carried out using a pre-coded structured questionnaire in local language along with English language. The questionnaire was field tested and necessary alteration and modifications were made before the survey was conducted. The questionnaire included Socio-demographic questions, questions on family & friend smoking history, questions on respondents smoking history & practices. The survey teams were ensuring that all eligible individuals must voluntary agree to participate in the interview and informed consent of interviewees was taken. The questionnaires were filled in a way that the privacy of respondent was seriously considered. Collected data was entered into a database created using SPSS Inc 22 statistical software. Data were screened and inspected for missing data and potential errors.

3. Result

A total of 600 students have been selected for this study from four education faculties. From each faculty 150 students have selected, however, response rate of participants was 93%. Most of the students (88.8%) were belonging to age group 18+ and remaining students were on the boundary of. With reference to financial status, data clearly revealed that, majority of students belonging to lower income group (76.1%) of which 136 (32%) of them having monthly income less than Rs.6000 (Table-1).

Table 1: General data of the study participants containing sex, age group and their income

Age group		Weekly family income (Rs.)	
≤18 years	62 (11.1%)	≤10000	425 (76.1%)
≥18 years	496 (88.8%)	>10000	133 (23.8%)

Table-2 focused on smokers among college student from different education faculty. Highest number of students participated in this study were from engineering (n=148) followed by science students (n=144). Lowest number of participants (n=127) was observed from commerce faculty with moderate frequency of smoking (16.5%). In this research work average prevalence estimated was 16.6%, however engineering students were found be dominant smokers with 22.9% prevalence rate and arts faculty students were found to be lowest prevalence rate (11.5%).

Table 2: Faculty wise smoking frequency

Faculty	Participants	Smokers	%
Basic Science	144	22	15.2
Engineering	148	34	22.9
Arts	139	16	11.5
Commerce	127	21	16.5
Total	558	93	16.6

4. Discussion

The onset of cigarette smoking in young students was associated with the curiosity, influence of friends and the fact that they understood consumption as normal, found it 'legal' as found in studies in Ghana [21]. Participants in this study believed that smoking has contributed to a mature appearance, which also motivates them to use. Furthermore, this study had observed significant relationship between parents and children smoking habits. A study conducted in Malaysia found that children whose fathers are smokers are almost twice at higher risk of smoking compared to those whose fathers are not smokers; this study also shows that within families, sibling's smoking habits are also significantly associated with children smoking habit. [22]. According to smoking behavior surveys in Thailand, about 30% of current smokers started their smoking when they were studying at university [23, 24].

Unfortunately there is no previous data available to carry out a comparison within students of these educational faculties. However, previous study from the same area has shown 13.8% prevalence in mens above 15+ age group [25] However the data available about general smoking revealed that, a trend analysis of tobacco use in India, using nationally representative surveys documented an increase in the prevalence of any smokeless tobacco use from 15% in 1987 to 23.4% in 2005 while slight decline in any smoked tobacco from 19.8% to 18.3% in the same period [26]. Recent data in India shows that from Global Adult Tobacco Survey (2009–2010) to Global Adult Tobacco Survey (2016–2017), there have been a 4.5% decline, in prevalence of smokeless tobacco use from 25.9% to 21.4% and a 3.3% decline in smoking, from 14.0% to 10.7% [27].

The data available in other countries related smoking habits in males, it has been observed that, the prevalence rate is similar to this research work in republic of Iran and

Bangladesh [28] but higher than previous Indian studies [25]. Nevertheless some counties had shown quite high and alarming frequency of smoking such as 36% in Pakistan [28] that is close to that of Kabul city. While the prevalence of smoking among men aged 15yrs and older was reported to be: 43.8% in Turkey and 52.9% in China.

The Indian Government has undertaken various initiatives and legislation to control tobacco. The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act (COTPA) came into force in 2003 [29], making it the principal comprehensive law governing tobacco control in India. Some of the rules promulgated under this law were prohibition of direct and indirect advertisements of tobacco products, sale of tobacco to minors, smoking in public places, and within a radius of 100 yards of educational institutions [30]. It also included mandatory display of pictorial warning on tobacco product packages, testing of tar and nicotine content of all tobacco products. In spite of that all efforts taken by government, cigarette smoking increasing day by day especially among college students in India as an addiction.

5. Conclusion

India faces a high burden of cigarette smoking especially among youth and which is continuously increasing irrespective of the legal rules imposed by government and regular propaganda by print and other media.

References

- [1] Foulds J, Delnevo C, Zeidonis DM, Steinberg MB. Health effects of tobacco, nicotine, and exposure to tobacco smoke pollution. In: Handbook of the Medical Consequences of Alcohol and Drug Abuse (2nd ed), J. Brick (Ed.) New York: The Haworth Press, Inc; 2008. p.423-459.
- [2] Murray J, Lopez AD. Alternative projections of mortality and disability by cause 1990-2020: Global burden of disease study. *Lancet* 1997; 349: 1498-504.
- [3] U. S. Department of Health & Human Services. The health consequences of smoking—50 years of progress: a report of the Surgeon General. 2014; 17.
- [4] Carter B, Abnet CC, Feskanich D, Freedman ND, Hartge P, Lewis CE, Ockene JK, et al. Smoking and mortality—beyond established causes. *N Engl J Med* 2015; 372: 631–640.
- [5] Ministry of Health and Family Welfare, Government of India. Reddy SK, Gupta PC, editor. Report on tobacco control in India. New Delhi: Ministry of Health and Family Welfare; 2004. [Online available from: http://www.who.int/fctc/reporting/Annex6_Report_on_Tobacco_Control_in_India_2004.pdf [Accessed on 17th March, 2019]
- [6] World Health Organization. WHO global report: mortality attributable to tobacco. 2012. [Accessed on 18th July, 2019]
- [7] Lasser K, Boyd JW, Woolhander S, Himmelstein DU, McCormick D, Bor DH. Smoking and mental illness: a population-based prevalence study. *JAMA* 2000; 284: 2606–2610.

- [8] Smith P, Mazure CM, McKee SA. Smoking and mental illness in the US population. *Tob Control* 2014; 23: e147–e153.
- [9] Grant B, Hasin DS, Chou P, Stinson FS, Dawson DA. Nicotine dependence and psychiatric disorders in the United States. *Arch Gen Psychiatry* 2004; 61: 1107–1115.
- [11] World Health Organization (WHO). Facts on the tobacco epidemic and its control. Fact Files; . <http://www.who.int/features/factfiles/tobacco/en> [Accessed on 27th July, 2019]
- [12] Tyas SL, Pederson LL. Psychosocial factors related to adolescent smoking: a critical review of the literature. *Tob Control*.1998; 7: 409-420. doi: 10.1136/tc.7.4.409
- [13] Rudatsikira E, Muula AS, Siziya MS. Prevalence, correlates of and perceptions toward cigarette smoking among adolescents in South Korea. *Indian J Pediatr*.2009; 76: 505-510. doi: 10.1007/s12098-009-0073-6
- [14] Rudatsikira E, Abdo A, Muula AS. Prevalence and determinants of adolescent tobacco smoking in Addis Ababa, Ethiopia. *BMC Public Health*.2007; 7: 176. doi: 10.1186/1471-2458-7-176
- [15] Ary DV, Biglan A. Longitudinal changes in adolescent cigarette smoking behavior: Onset and cessation. *J Behav Med*.1988; 11 (4): 361-382. doi: 10.1007/bf00844936
- [16] Ortabag T, OzdemirbS, Bakir B, Tosun N, Health promotion and risk behaviors among adolescents in Turkey. *J. School Nursing*, 2001; 27 (4): 304-31.
- [17] Challier B, Chau N, Prédine R, Choquet M, Legras B, Associations of family environment and individual factors with tobacco, alcohol, and illicit drug use in adolescents. *Eur. Journal Epidemiology*, 2000; 16: 33-42.
- [18] Icmeli OS, Turker H, Gundogus B, Ciftci M, Akturk U, Behaviours and opinions of adolescent students on smoking. *Tuberculosis and Thorax*, 64 (3), 217-222 (2016)
- [19] Escario JJ, Wilkinson AV. Visibility of smoking among school teachers in Spain and associations with student smoking: a cross-sectional study. *BMJ Open*.2018; 8: e018736. doi: 10.1136/bmjopen-2017-018736
- [20] Kliegman RM, Stanton BMD, Geme JS, Schor NF. Substance Abuse. In: *Nelson Textbook of Pediatrics*. Vol 2.20th ed. Elsevier; 2016: 955.
- [21] Bandason T, Rusakaniko S. Prevalence and associated factors of smoking among secondary school students in Harare Zimbabwe. *Tob Induc Dis*.2010; 8: doi: 10.1186/1617-9625-8-12.
- [22] Edward NA, Gloria AM, Samual A. Determinant of cigarette smoing and smoking intensity among adult in Ghana. *BMC Public Health*, 2018; 18: 941.
- [23] K Shamsuddin, M Abdul Haris.2000. Family Influence on Current Smoking Habits Among Secondary School Children in Kota Bharu, Kelantan. *Singapore Medical Journal* 2000 Vol 41 (4): 167-171
- [24] World Health Organization. *Global Adult Tobacco Survey: Thailand Report*, World Health Organization, Geneva, Switzerland, 2009.
- [25] Pachanee CA, Lim L, Bain C, Wibulpolprasert S., Seubsman SA, and Sleigh A. Smoking behavior among 84 315 open-university students in Thailand. *Asia-Pacific Journal of Public Health*, 2011; 23 (4): 544–554.
- [26] Deore AU. Cigarette Smoking Prevalence among Men’s of Nagpur, Maharashtra. *International Journal of Creative Research Thoughts*, 2021 (9): a517-a521.
- [27] Suliankatchi Abdulkader R, Sinha DN, Jeyashree K, Rath R, Gupta PC, Kannan S, et al. Trends in tobacco consumption in India 1987–2016: impact of the World Health Organization Framework Convention on Tobacco Control. *Int J Public Health*.2019; 64 (6): 841 <https://doi.org/10.1007/s00038-019-01252-x> PMID: 31134319
- [28] *Global_Adult_Tobacco_Survey2_India_2016–17_June2018.pdf* http://download.tiss.edu/Global_Adult_Tobacco_Survey2_India_2016-17_June2018pdf
- [29] B. Kusma, D. Quarcoo, K. Vitzthum et al. Berlin’s medical student’s smoking habits, knowledge about smoking and attitudes toward smoking cessation counseling, *Journal of Occupational Medicine and Toxicology*, 2010; 5 (1):
- [30] Shimkhada R, Peabody JW. Tobacco control in India. *Bull World Health Organ*.2003; 81: 48–52. PMID: 12640476
- [31] Mohan P, Lando HA, Panneer S. Assessment of Tobacco Consumption and Control in India. *Indian Journal of Clinical Medicine*.2018; 1 (9): Doi: 1179916118759289.