



ORIGINAL RESEARCH PAPER

Community Medicine

A STUDY ON TOBACCO USE AND ITS INFLUENCING FACTORS AMONG ADOLESCENTS IN A RURAL AREA OF JHANSI

KEY WORDS: Tobacco, adolescents, cancer

Dr. Sachin Mahur

Associate Professor, Department of Radiotherapy, M. L. B. Medical College, Jhansi, U.P.

Dr. Santosh Kumar Verma*

Associate Professor, Department of Community Medicine, M. L. B. Medical College, Jhansi, U.P. *Corresponding Author

ABSTRACT

Background; the tobacco epidemic is one of the biggest public health, killing more than 7 million people a year. It is a major risk factor for various types of chronic diseases such as cancers and other diseases. Adolescents are the most vulnerable population to initiate tobacco use.

Objectives; 1.To study the prevalence of tobacco use among adolescents. .To find out the factors influencing the tobacco use among adolescents.

Material and methods; community based cross-sectional study was conducted in selected rural areas of district Jhansi during October 2017 to December 2017 and 102 adolescents aged 10-19 years in selected village were included. A Multistage Random Sampling technique was used to cover the required sample size for the present Study. Data was collected by using pretested semi-structured and analyzed statistically by simple proportions and Chi square test .

Results; our study shows that prevalence of tobacco use among adolescents was 21.5% and it was found significantly ($P<0.05$) more in males (30.0%) than females (3.1%). Gutkha/panmasa (63.6%) were most commonly used by adolescents .Peer pressure was most influencing factors for initiation of tobacco use .

Introduction;

The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 7 million people a year. Around 80% of the 1.1 billion smokers worldwide live in low- and middle-income countries, where the burden of tobacco-related illness and death is heaviest. Tobacco users who die prematurely deprive their families of income, raise the cost of health care and hinder economic development. [1]

Not only is it a major risk factor for various types of chronic diseases such as cancers, chronic obstructive pulmonary diseases, cardiovascular diseases, and poor reproductive outcomes, but also it is associated with high rates of dental diseases such as dental caries, periodontal diseases, and tooth loss. [2]

Adolescents are the most vulnerable population to initiate tobacco use. It is now well established that most of the adult users of tobacco start tobacco use in childhood or adolescence. [3]

Keeping above background, this study was planned with following objectives;

Aims and objectives;

- To study the prevalence of tobacco use among adolescents.
- To find out the factors influencing the tobacco use among adolescents.

Material and Methods;

Study Design; community based cross-sectional study.

Study Place; the present study was conducted in selected rural areas of district Jhansi in Uttar Pradesh.

Study Period; Study was carried out from October 2017 to December 2017

Study Population; adolescents aged 10-19 years in selected village were included.

Sample Size Estimation; Sample size was calculated statistically on the basis of prevalence of tobacco use among adolescent from previous study (T.S. Jaisooriya et al, 2016 (4) i.e.6.9% in adolescents. The formula used for calculation of sample size (n) was

$$n = z^2pq / d^2 \text{ Where in, } z \text{ (at 95\% confidence levels) } = 1.96 \\ P \text{ (estimated prevalence of population) } \\ q (1-p)$$

$$d(\text{Absolute precision}) = 5\%$$

$$\text{Therefore, } n = (1.96)^2 \times 6.9 \times 93.1/5 \times 5 = 102$$

Sampling Technique; A Multistage Random Sampling technique was used to cover the required sample size for the present Study. District Jhansi has 8 Blocks, out of which Badagaon block was selected randomly. Badagaon block has 110 villages, out of which village Diagara was selected randomly and in this village, 102 participants were selected randomly. This was our sampling frame. Methodology of data collection; Data was collected by personal interview after taking verbal consent of participants. A pretested semi-structured questionnaire was used for data collection. Data was entered into a Microsoft Excel spreadsheet and analyzed statistically by simple proportions. Chi square test was used to find out association. P value <0.05 was considered as statistically significant.

Observation;

Table 1- Tobacco use among study participants (n=102)

Tobacco use	YES	NO	Total	P value
Male	21(30.0)	49(70.0)	70(68.6)	$\chi^2 = 9.3763$, df=1, $P<0.05$
Female	1(3.1)	31(96.9)	32(31.4)	
Total	22(21.5)	80(78.5)	102(100.0)	

Table no1 shows that prevalence of tobacco use among adolescents was 21.5% and it was found significantly ($P<0.05$) more in males (30.0%) than females (3.1%).

Table 2; Type of tobacco product use among study participants (n=22) *

Tobacco product	No (n=22)	%
Gutkha/pan masala	14	63.6
Khaini/surti	6	27.3
Cigarette/bidi	4	18.2
Both Smokeless & smoke	3	13.6

* Multiple response

Table no 2, shows that gutkha/panmasa (63.6%) were most commonly used by adolescents followed by khaini/surti (27.3%) and only 18.2% were using cigarette or bidi.13.6% adolescents were using both smoke and smokeless products.

Table 3; Factors influencing the tobacco use among adolescents

Influencing Factors	No (n=22)	%
Peer pressure/pressure from friends	12	54.5
Common practice in family	4	18.2
Want to look mature	2	9.1
Relieves tension/anxiety	1	4.5
Just want to try	3	13.6

Table no 3, shows that peer pressure were most influencing factors for initiation of tobacco use followed by common practice in family and just want to try or look mature. Only 4.5% were started using tobacco to relieves tension or anxiety.

Discussion;

Consumption of tobacco products are major risk factors for many diseases mainly cancer. It has been long documented that tobacco use contributes to high rates of morbidity and mortality across the world [5]. Regarding prevalence of tobacco use, Our study shows the prevalence of tobacco use among adolescents was 21.5% and it was more in male (30.0%) than females (3.1%) and found significant ($P < 0.05$). Our results were variable with other study due to different geographic areas and other correlated factors. Low prevalence reported by some study like only 2.2% [6] and 6.9 per cent [4] but similar results also found by a study which shows the gender disparity in tobacco prevalence with higher use and prevalence of tobacco use (in all forms) was 18.2 % [7] and some reported high prevalence like 52.4% were current users [8]. Another study supported our study by showing the prevalence of smoking has been found to vary from 6.9 to 22.5% among the male and was considerably low varying from 0–2.3% among the girls [9, 10].

Regarding tobacco product use, our study reported that gutkha/panmasa (63.6%) were most commonly used by adolescents followed by khaini/surti (27.3%) and only 18.2% were using cigarette or bidi and 13.6% adolescents were using both smoke and smokeless products. Our findings were supported by other studies showing 14.2% smoked while 9.4% chewed tobacco in several forms but among tobacco users, 77.8% smoked bidis and cigarettes while 51.7% chewed or used smokeless forms of tobacco such as paan masala, paan, gutka, toothpaste, and other commercially available tobacco products [7], another study reported that 49% were using smoking form of tobacco and 34.4% were using smokeless form and 15.5% were using both forms and common practice [8].

Regarding factors influencing the tobacco use among adolescents, our study shows that peer pressure were most influencing factors for initiation of use followed by family practice, just want to try, looking mature or to relives tension or anxiety. Some study suggested that family plays a very important role in initiation of tobacco use by a young child or adolescent. Tobacco use by parents or an elder sibling increases the likelihood that a child begins smoking [9, 10]. Peer pressure or pressure from friend was main factors that influenced tobacco use [6, 8, 11, 12] because when one is distressed due to any reason, an offered cigarette or beedi by a friend initiates the conforming process with a tobacco-using peer-group network [11, 12]. Poor school performance, truancy, low aspiration for future success, and school dropouts have been found to be associated with smoking at an early age [11]. Children and adolescents with anxiety and depression are likely to use tobacco and other drugs, as these have anxiety relieving and mood elevating properties [13]. Children with low self-esteem are likely to be vulnerable to drug use including the tobacco. As smoking behavior is associated with maturity and adulthood, tobacco use may serve to promote self-esteem [14]. Another study reported that social customs were the major influencing factor for the tobacco consumption, followed by peer

pressure and consumption of tobacco among the family members significantly increased the tobacco use among the adolescents. [15]

Conclusion: Tobacco consumption was common practice among adolescents and it was found more among male than female adolescents. Gutkha/panmasala was most commonly used by adolescents and peer pressure was most important influencing factors for initiation of tobacco use followed by common practice in family. Need to focus on adolescents by motivating him through changing the habbit by behavior change practice by family members or by information, education and communication (IEC) activities at village level by health worker.

References;

1. WHO, FACT SHEET 2018, <http://www.who.int/mediacentre/factsheets/fs339/en/> accessed on 21 MARCH 2018 AT 11.58 AM.
2. Petersen P. E. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century—the approach of WHO Global Oral Health Programme. Community Dentistry and Oral Epidemiology. 2003;31(1):3–24
3. RK Chadda and SN Sengupta ; Tobacco use by Indian adolescents; Tob Induc Dis. 2003; 1(1): 8.
4. T. S. Jaisooriya, K. V. Beena, M. Beena, Dalia C. Jose, K. Ellangovan, K. Thennaras & Vivek Benegal; Prevalence & correlates of tobacco use among adolescents in Kerala, India, Indian J Med Res 144, November 2016, pp 704-711
5. Petersen P. E. Tobacco and oral health—the role of the world health organization. Oral Health & Preventive Dentistry. 2003;1(4):309–315.
6. Singh S, Vijayakumar N, Priyadarshini H R, Jain M.; Tobacco use among high school children in Bangalore, India: A study of knowledge, attitude and practice. Indian J Cancer 2015; 52:690-3
7. Payal Kahar, Ranjita Misra, * and Thakor G. Patel; Sociodemographic Correlates of Tobacco Consumption in Rural Gujarat, India; Published online 2016 Mar 30. doi: 10.1155/2016/5856740; Biomed Res Int. 2016
8. Garg g et al; tobacco use and its correlate factors among adult males in rural area of meerut- A cross sectional study; IJCH, vol 25, no 3, p281-4, july-sep 2013
9. Kapoor SK, Anand K, Kumar G. Prevalence of tobacco use among school and college going adolescents of Haryana. Indian Journal of Pediatrics. 1995;62:461–466. doi: 10.1007/BF02755068
10. Jayant K, Notani PN, Gulati SS, Gadre VV; Tobacco use in school children in Bombay, India. A study of knowledge, attitude and practice. Indian Journal of Cancer. 1991;28:139–147
11. Patel DR; Smoking and children., Indian Journal of Pediatrics. 1999;66:817–24. doi: 10.1007/BF02723844.
12. Vaidya SG; Young tobacco users. World Health. 1995;48:30.
13. Singh SK, Narang RK, Chandra S, Chaturvedi PK, Dubey AL. Smoking habits of the medical students. Indian Journal of Chest Diseases and Allied Sciences. 1989;31:73–75
14. Lynch BS, Bonnie RJ, (eds) Preventing Nicotine Addiction in Children and Youth. Washington DC: National Academy Press; 1994. Growing up Tobacco Free
15. Dhekale Dilip Narayan et al.; Prevalence of Tobacco Consumption among the Adolescents of the Tribal Areas in Maharashtra, Journal of Clinical and Diagnostic Research. 2011 October, Vol-5(5): 1060-1063.