



Tobacco consumption behavior among construction site workers of Jaipur city

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Abstract

Background: Tobacco use is a global epidemic. The prevalence of tobacco use among the stone crusher workers is very high because of their working pattern and lack of knowledge regarding the harmful effects of tobacco consumption.

Material and Method: A cross sectional study was carried out to assess behavior regarding tobacco consumption among construction site workers of Jaipur city. A total of 800 workers were included into the study. They were assessed using pre designed and pre tested questionnaire and the data collected was analyzed using SPSS (19) statistical software.

Result: Among the total study subjects, it was observed that 88(9.9%) sample had idea that tobacco causes heart attack while 801(72%) had no idea regarding it. It was also found that 28(3.1%) believed that tobacco use causes asthma while 861(96.9%) of the population did not have any idea. Knowledge among the study population regarding tobacco causing lung cancer was found to be 443(50%). The fact tobacco causes oral cancer was known to be all the subjects. Almost the subjects didn't believe that passive smoking causes harm.

Conclusions: Specific counseling and intervention programs are needed to reduce the burden of tobacco use related morbidity among these workers. Tobacco control should be a top priority not merely as a health issue, but also as a poverty reduction mechanism.

Keywords: tobacco, cessation, intervention, construction, workers, smokers

Introduction

Tobacco use is a global epidemic and the problem is getting worse rapidly by every passing day. As the tobacco industry penetrates the developing world, there are 1.1 billion tobacco users and this number is expected to increase to 1.6 billion over the next two decades [1]. According to the report of Global Adult Tobacco Survey, India (2016–2017), 42.4% of men 14.2% of women currently use tobacco (smoked and/ or smokeless tobacco) [2]. Male smoking rate is very high in Asian countries, with Indonesian men (76%) ranked the world top smokers while Indian men who smoke are (20%) [3].

The nexus between tobacco consumption and poverty is well documented [4]. In India, nearly 300 million people live in extreme poverty [5]. The cyclical relationship between tobacco use among the poor and exacerbation of poverty due to tobacco related diseases is also well- documented. Health care costs involve not only direct medical costs but also indirect morbidity and mortality costs. India being a low- and middle-income country (LMIC). Health expenditure is mostly out of individual's pocket and it also consequently exacerbates the poverty rates as socio-economic and health inequalities are rampant [6] however India's expenditure on health sector has risen from 1.4% of GDP in 2017-18 to 1.6% in 2019-20 [7] but it is not merely the government, but it is also multifaceted and encompasses biomedical, economic, and geopolitical condition of the individual [8]. Which plays vital role in order to avail the necessary treatment. Once a product rolls off the manufacturing line, it needs a help to go to consumers, for this tobacco industry spends billions of dollars each year on sophisticated marketing mix like direct advertising, merchandising, sponsorship and several other methods [8], which easily transmits the message of independence,

dignity, healthfulness, social recognition and adventure seeking particularly among vulnerable groups of the society [9], there is the urgent need in regulating complete ban in these marketing strategies so that central tobacco control strategies can be implanted [10], since partial bans are ineffective because when one form of marketing is banned, the tobacco industry shifts spending to other forms of promotion [11]. Considering all the above facts Tobacco control should be a top priority not merely as a health issue, but also as a poverty reduction mechanism [4]. Effective implementation of tobacco control policies provides an opportunity especially for India to fulfill its commitments to meet the goals–2030 agenda of Sustainability Development Goal of poverty reduction and good health [11].

Despite various initiatives, menace of tobacco problem still remains a cause of concern globally. Job of construction site workers is primarily monotonous which predisposes to tobacco habit. Thus this study aimed to assess behavior regarding tobacco consumption among construction site workers of Jaipur city.

Materials and methods

The present study covered almost all the construction site in and around Jaipur city. The Stratified Cluster random sampling procedure was employed to collect the representative population. Each area was used as strata, and construction site from the area was selected randomly. Overall workers screened were 1200. All the workers were informed about the study in the advance so as to attain maximum attendance. On the basis of exclusion and inclusion criteria, out of them 800 workers were selected for the study.

Inclusion criterion

1. Workers present on the day of examination and had completed 15 years of age.
2. Workers who consumed tobacco in any form

Exclusion criteria

1. Individuals suffering from any systemic problem and
2. Individuals who are not willing to participate in the study.

Ethical clearance was obtained from the ethical committee of the institute, and the permission to conduct study was obtained from the construction site supervisors.

Calibration

Oral examination of the entire study participant was carried out by single investigator. Examiner was trained and calibrated in the Department of Public Health Dentistry, by a senior faculty member. Training took 2 days, and further 2-3 days for calibration. First, the examination was conducted on the group of 10 participants with a wide range of disease conditions and then twenty preselected individuals were examined twice consistently, with a time interval of at least 30 minutes and the result of both the examination were compared to estimate the extent and nature of diagnostic variability

Examination and data collection

Global Tobacco Surveillance system and manual for tobacco cessation (2005) was used for data collection through pre-designed and pre-tested performa Demographic, personal and knowledge and attitude regarding tobacco use of each study participant was also recorded.

Study setting

A clean well illuminated and ventilated room with two gates one for entry and one for exit was selected for examination to avoid crowding and noise. The workers were made to sit on a chair at a place with sufficient natural daylight. A table, on which instruments were arranged, was placed within easy reach of the examiner. Clinical oral examinations were carried out by a single examiner, who was assisted by the recorder while examining the participant and called out the scores for each item of examination clearly, and the recorder then entered it in the pro forma for each participant examined

Statistical analysis

The data for the present study was entered in the Microsoft Excel 2007 and analyzed using the SPSS statistical software 19.0 Version. The descriptive statistics included mean, standard deviation, frequency and percentages.

Result

The present study was aimed to assess behavior regarding tobacco consumption among construction site workers of Jaipur city. It was observed that all the study participants 800 (100.0%) study subjects who consumed tobacco in some form or the other. Among the total 212 (26.6%) were smokers, 233 (29.2%) consumed smokeless tobacco and 353 (44.2%) used both smoke and smokeless form of tobacco (Table 1). When the behaviour and knowledge of the study subjects was assessed it was observed that 79 (9.9%) study subjects had idea that tobacco causes heart

attack while 721 (72%) had no idea regarding tobacco causes heart attack. It was also found that 25 (3.1%) of the study subjects believed that tobacco causes asthma, while 775 (96.9%) of the study population did not have any idea about the relation between tobacco use and asthma. When the knowledge among the study population regarding tobacco causing lung cancer was assessed it was observed that half of the study population new about it and rest half had no idea about tobacco causing lung cancer. The fact that tobacco causes oral cancer was well known to 772 (90.6%) of the study population and 28 (9.4%) disagreed the fact that tobacco causes oral cancer. Out of total study population 46 (5.6%) believed that passive smoking is harmful while 754 (94.4%) disapproved to this fact (Table 2).

Table 1: Demographic Variables of the Study Population

Variables	N (800)	Percentage%
Age Groups		
15-20	9	(1.2%)
21-25	73	(9.2%)
26-30	134	(16.8%)
31-35	153	(19.2%)
36-40	108	(13.6%)
<40	320	(40.0%)
Education		
Illiterate	12	(1.6%)
Primary	515	(64.4%)
High school	185	(23.2%)
Intermediate	54	(6.8%)
Graduate	9	(1.2%)
Degree	12	(1.6%)
Postgraduate	9	(1.2%)
Tobacco use		
Smoking	212	(26.6%)
Smokeless	233	(29.2%)
Both	353	(44.2%)
Years of working		
15-20	601	(75.2%)
21-25	86	(10.8%)
26-30	19	(2.4%)
31-35	80	(10.0%)
36-40	9.6	(1.2%)
More than 40	3.2	(0.4%)

Table 2: Knowledge regarding health consequences of tobacco consumption among the study participants

Variables	N (800)	Percentage%
Tobacco causing heart attack		
Yes	79	(9.9%)
No	721	(90.1%)
Tobacco causing asthma		
Yes	25	(3.1%)
No	775	(96.9%)
Tobacco causing lung cancer		
Yes	400	(50%)
No	400	(50%)
Tobacco causing oral cancer		
Yes	772	(96.6%)
No	28	(3.5%)
Is passive smoking harmful		
Agree	46	(5.8%)
disagree	754	(94.3%)

Discussion

The present study investigates the knowledge and attitude regarding harmful effects of tobacco habit of construction side workers in and around Jaipur city. The data of tobacco use and its prevalence among the workers is important so as to assess tobacco as a risk factor for serious health problems, and to establish control measures for prevention of tobacco habit and diseases related to it.

The prevalence of tobacco use among the stone crusher workers in the present study is (100%) with (44.2%) of subjects using both (smoke and smokeless form) of tobacco which is much higher than that reported in previous US study, conducted by Judith M. Graber *et al* ^[12] with (41.7%) current tobacco users and (12.6%) using both forms of tobacco respectively. Difference in the finding can be attributed to the difference in nationality and cultural variation.

Not surprisingly, we found that rates of both smoke form (26.6%) and smokeless form (29.2%) of tobacco was almost double as compare to the study conducted in New Delhi by Mamta Parashar *etal*¹³ (49%) using smoke form and similar (29%) using smokeless form of tobacco. This difference could be due to variations in social factors or may be associated with work place stress among the various study subjects.

Knowledge regarding tobacco causing oral cancer in our study was found to be higher(90.6%) as compare to the study conducted in India by Mamta Parashar *etal* ^[13] (55.8%)

Few of our respondents (9.9%) knew that tobacco causes heart attack. Sajjan shetty Mallikarjun *etal* ^[14] reported similar findings regarding awareness about tobacco causing heart attack but at much higher scale of (69.6%). Difference in knowledge may be attributed to the different study location, sampling frame and demographic characteristics of the individuals enrolled.

Knowledge of respondents regarding harmful effects of tobacco on respiratory system (3.1%) was found to be much lower as compare (22.8%) to the previous study conducted by Samal Rabindra Kumar *et al* ^[15].

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