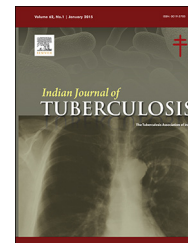


Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.journals.elsevier.com/indian-journal-of-tuberculosis/>

Original Article

Tobacco use and its impact on pulmonary health among elderly population in rural area of Muzaffarnagar – A cross-sectional study

Sanjeev Davey^{a,*}, Jai Vir Singh^b, Santosh Kumar Raghav^c,
Khursheed Muzammil^b, Rama Shankar^d

^a Assistant/Associate Professor, Department of Community Medicine, Muzaffarnagar Medical College & Hospital, Muzaffarnagar 251203, Uttar Pradesh, India

^b Professor & HOD, Muzaffarnagar Medical College & Hospital, Muzaffarnagar 251203, Uttar Pradesh, India

^c Lecturer cum Statistician, Department of Community Medicine, Muzaffarnagar Medical College & Hospital, Muzaffarnagar 251203, Uttar Pradesh, India

^d PG 1st Year Student, Department of Community Medicine, Muzaffarnagar Medical College & Hospital, Muzaffarnagar 251203, Uttar Pradesh, India

ARTICLE INFO

Article history:

Received 23 February 2015

Accepted 9 July 2015

Available online xxx

Keywords:

Smoked tobacco

Smokeless tobacco

COPD

Pulmonary health

Elderly

ABSTRACT

Background: The tobacco use is significant in Indian rural population. Among them, elderly people in rural area are at special risk due to ageing and other factors. The impact of tobacco use on elderly health, therefore, needs to be studied in depth in rural context.

Objective: To study the patterns of tobacco use and its consequent impact on pulmonary health of the elderly.

Design and methodology: A community-based cross-sectional study was done (April 1st to September 30th, 2014) in the field practice area (village Bilaspur) of Rural Health Training Centre (RHTC) of Muzaffarnagar Medical College, Muzaffarnagar. A simple random sampling was used and elderly of 60 years and above were interviewed by semi-structured interview schedule. The data were analyzed by software Epi-info. version 7.1.3.3.

Results and conclusion: The prevalence of tobacco usage among elderly was 56.7%, in which smoking was the dominant one (37%) and majority being in the form of Bidi (56.7%). Tobacco usage was significantly associated not only with age, sex, and caste ($p < 0.05$ each), but occupational and socio-economic status ($p < 0.01$ each) also; however, literacy was the most significant factor ($p < 0.0001$) among all. The tobacco usage in smoking form was highly significantly associated with the presence of chronic obstructive pulmonary disease ($p < 0.0001$), elucidating a significant impact on their pulmonary health. The rural elderly people need health education regarding curtailing the use of tobacco for their better health from health clinics.

© 2015 Tuberculosis Association of India. Published by Elsevier B.V. All rights reserved.

* Corresponding author. Tel.: +91 9411695936.

E-mail address: Sanjeevdavey333@gmail.com (S. Davey).

<http://dx.doi.org/10.1016/j.ijtb.2015.07.004>

0019-5707/© 2015 Tuberculosis Association of India. Published by Elsevier B.V. All rights reserved.

1. Introduction

Globally, tobacco accounts for at least 10% adult deaths and 6 million illnesses per year. Tobacco use is a serious public health problem in India, as between ages 30 and 69 years, it is causing 5% death among women and 20% death among men in India.¹ By 2020, it is expected that tobacco will be responsible for 13% deaths in India.¹⁻³ The cost of treatment of tobacco-related diseases and the loss of productivity in India is around Rs. 13,500 crores annually, which is more than the benefits gained in the form of revenue and employment generated by tobacco industry.⁴

India is the third largest producer and consumer of tobacco in the world, where cigarette consumption has reached to a level in causing serious tobacco usage related problems in the areas of both health and productivity.^{5,6} According to the most recent figures from the Global Burden of Disease (GBD) study, coordinated by Institute of Health Metrics Evaluation (IHME), tobacco usage has led to nearly one million deaths and significant health loss in India.⁷ Now, more Indian people are smoking (110 million, compared to just 74.5 million smokers three decades back), notwithstanding the presence of anti-tobacco and smoke-free laws.⁷ According to the World Health Organization (WHO) figures, India has 12% of world's smokers and there are approximately 120 million smokers in India.⁸ According to an old WHO estimate, 30% of adult males in India smoke more as compared to adult females (3-5%).⁹

Although the overall prevalence of tobacco use globally as per one systematic review with meta-analysis study was low in terms of 13% in both genders (22% males and 8% females), this must be considered very cautiously in the context of India.¹⁰ According to a recent WHO report on Global Tobacco Epidemic (2013), currently more than 35% Indians are consuming tobacco, with an estimate of 59.6% smokeless tobacco and 25% smoked tobacco. It has also been found that the prevalence of tobacco consumption can not only increase up to the age of 50 years, but also the prevalence of smoking and chewing varies widely between different states of India with a strong association with individual's socio-cultural characteristics.¹¹ Socio-demographically, in India, tobacco smoking is more prevalent in men and among older people. Although men have been found to smoke throughout their lives, the women are also becoming smokers at an older age.¹²⁻¹⁴

Tobacco smoking, thus, is not only related to ill health, but also to an impaired functional capability in bone mineral density, pulmonary function, and muscle strength.¹⁵ Chronic obstructive pulmonary disease (COPD) in elderly are now found to be significantly associated with tobacco usage in India. It has been found that the prevalence of COPD in the elderly with negative histories of smoking is low and this emphasizes the importance of reducing smoking as the effective preventive measure for elderly health.¹⁶ Thus, there are many studies on adolescents and young adults on tobacco usage patterns in India, but the studies specifically researching the area of using tobacco and its consequent impact on lung health among elderly in rural area in district Muzaffarnagar of State UP, India (where socio-cultural and behavioral factors

among elderly may be dominant due to its population dynamics) are lacking in literature. This was the prime reason for choosing this research area for study by authors as a part of research project funded by TB Association of India.

2. Methods

Ethical approval: This study was carried out under a research project approved both by TB association of India and Institutional ethics committee of Muzaffarnagar Medical College, Muzaffarnagar (UP).

Study design: A community-based cross-sectional study.

Study subjects: Elderly above 60 years of age.

Study duration: April 1st, 2014 to September 30th, 2014.

Study area: The study was conducted in the village Bilaspur in the field practice area of Rural Health Training Centre (RHTC) of Department of Community Medicine Muzaffarnagar Medical College, Muzaffarnagar (UP).

Sampling technique: The RHTC catering area covered a total population of 43,117 (up to September 30th, 2014). A total of six villages were first enlisted from this RHTC catering area, i.e., Shernagar, Makhiali, Bilaspur, Sikheda, Dhandhera, and Bhagwanpuri. A simple random sampling was used to select a village by a lottery method. So the village Bilaspur, which got randomly selected, was considered for this study. The elderly who had been residents of this village Bilaspur for at least last 6 months and who were above 60 years of age were enrolled. A computerized list of the elderly was made of the study area and study participants were contacted by health workers in this area. From this list, sampled elderly were studied. The consent of elderly was also taken after explaining the importance of this study.

Methodology: All the study subjects residing in the field practice area in the village Bilaspur of Rural Health Training Centre (RHTC) of Department of Community Medicine Muzaffarnagar Medical College, Muzaffarnagar (UP) were enrolled and they were selected by using simple random sampling. Due to no clear-cut availability of prevalence among elderly in our study setting on tobacco usage, 50% prevalence was assumed as per WHO criteria and this also nearly corresponded with approximately at least 5% population of elderly out of total population of 8142 catered by Bilaspur village in RHTC catering area in the year 2014.

Sample size calculation:

$$N = 4PQ/L^2$$

$$P = 50\% \text{ (assumed prevalence as per WHO criteria)}$$

$$Q = 50\% (100-P)$$

$$L = \text{allowable error (10\% of } P) = 5$$

$$\text{So, } N = 400$$

A total of 400 elderly subjects were selected for this study, thereby completing the sample size.

Inclusion criteria: The criteria for selection of cases were as per working definitions of tobacco usage and COPD. Tobacco products were considered in our study comprising entirely or partly of leaf tobacco as raw material, which can be smoked, sucked, or chewed in the last 6 months. Tobacco use in our study was defined as any habitual use of the tobacco plant leaf

Download English Version:

<https://daneshyari.com/en/article/5672427>

Download Persian Version:

<https://daneshyari.com/article/5672427>

[Daneshyari.com](https://daneshyari.com)