

A Cross Sectional Study on Tobacco usage among rural adult population of Davangere, South India

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Abstract

Background: Usage of both smoking as well as smokeless form of tobacco has risen in both urban and rural areas of Davangere estimating to a prevalence of 30.7% on average, with highest prevalence of 39.6% among rural males.

Objective: To study the prevalence, pattern and socio-demographic factors influencing Tobacco usage among adult population in rural field practice area of SSIMS&RC, Davangere

Methodology: A cross-sectional study was conducted from July to September 2014 among adult population aged 18 years and above selected systematically till an estimated sample size of 450 individuals was obtained. Demographic data and details on tobacco usage were recorded using a pre-tested, semi-structured questionnaire by interview method. Data entry and analysis was done using SPSS trial version 20.1. Chi square (χ^2) test and Multiple Logistic regression analysis were applied to see the interaction of socio-demographic variables on tobacco usage.

Results: Among the study participants, 64.2% (n=289) used some form of tobacco. Men (53.3%, n=230) used tobacco more than females (13.1%, n=59) (p<0.001). Among the tobacco users (n=289), majority of men used smoking forms of tobacco (92.2%, n=212) like bidis (78.7%, n=181) and cigarettes (13.5%, n=31) whereas majority of women used smokeless forms of tobacco (96.6%, n=57) like tobacco leaves (91.5%, n=54) and gutka (5.1%, n= 3). Age group 20-35 years (OR= 1.2, p=0.01), male gender (OR= 4.4, p<0.001), illiteracy (OR= 3.5, p<0.001), agricultural occupation (OR= 2.2, p<0.001), higher socio-economic status (class II) (OR= 1.6, p=0.05) and family history of smoking (OR= 2.5, p<0.001) were the factors significantly associated with tobacco usage.

Conclusion: Smoking form of tobacco especially bidis are widely used by young males in rural areas which demand focus of anti-tobacco policies of India on bidis in anti-tobacco campaigns.

Keywords: Tobacco usage, smoking and chewable tobacco, bidis

Introduction

Tobacco-attributable health expenditures are 16% higher than the tax revenue from tobacco to the country

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cautioning the need for rigorous preventive measures.

⁽¹⁾ According to NFHS-III, in India, 55.8% male, 10.8% female in the age group of 12 to-60 years have been consuming tobacco. Among males, 32.7% were smokers and 36.5% were tobacco chewers, while among females, it was 1.4 and 8.4%, respectively.⁽²⁾ Usage of both smoking as well as smokeless form of tobacco has been on rise in both urban and rural areas of Davangere estimating to a prevalence of 30.7% on average, with highest prevalence of 39.6% among the rural males.⁽³⁾

Any attempt to intervene against the growing tobacco menace will not be fruitful without proper understanding of the pattern and factors influencing tobacco usage. Therefore, this study aimed to study the prevalence, pattern and socio-demographic factors influencing Tobacco usage among adult population in rural field practice area of SSIMS&RC, Davangere.

Materials & Methods

A cross-sectional study was conducted from July to September 2014 in the rural field practice area of SSIMS&RC, Davangere, Karnataka State, South India among adult population aged 18 years and above selected systematically till the calculated sample size of 450 individuals was obtained viz: every 4th house was selected and one individual aged 18 years or above present in the house during the time of interview was picked randomly and interviewed using a pre-tested, semi-structured questionnaire. Demographic data and details on tobacco usage like chewable or smoking form of tobacco used, age at initiation, years of usage, presence or absence of systemic diseases, other specific addictions, family history of tobacco usage and reasons for quitting or not-quitting were recorded.

Statistical Analysis

Data entry and analysis was done using SPSS version 19.1. Data is presented as proportions and percentages. Chi square (χ^2) test was applied to see significant differences and association of various parameters with tobacco usage. Multiple Logistic regression analysis was performed to see the interaction of certain independent variables on tobacco usage.

Results

The Mean age of the study participants was 47.16±14.13, comprising 61.3% (n=276) of males. Majority of the participants were illiterates (33.5%, n=151) and farmers (60%, n=270) by occupation. Among the study participants, 64.2% (n=289) used some form of tobacco. Men (53.3%, n=230) used tobacco more than females (13.1%, n=59) (p<0.001). Among the tobacco users (n=289), majority of men used smoking forms of tobacco (92.2%, n=212) like bidis (78.7%, n=181) and cigarettes (13.5%, n=31) whereas majority of women used smokeless forms of tobacco (96.6%, n=57) like tobacco leaves (91.5%, n=54) and gutka (5.1%, n= 3).

Age group 20-35 years (OR= 1.2, p=0.01), male gender (OR= 4.4, p<0.001), illiteracy (OR= 3.5, p<0.001), agricultural occupation (OR= 2.2, p<0.001), higher socio-economic status (class II) (OR= 1.6, p=0.05) and family history of smoking (OR= 2.5, p<0.001) were the factors significantly associated with tobacco usage.

Discussion

The usage of tobacco among the males (79.6%) and females (20.4%) was comparatively higher than the national average (males: 55.8%, Females: 10.8%, NFHS-III).⁽²⁾ Higher proportions of tobacco usage in our study population can be attributed to poor awareness regarding hazards of tobacco or a callous attitude towards quitting tobacco as it is evident from the lower quit rates among the female tobacco users (5%). More males reported Bidi (tobacco wrapped in temburini leaf) smoking (78.7%) which was higher compared to a similar study conducted by Yadav K *et al* ⁽⁴⁾ which showed a bidi usage of 44.6% among rural males. A very likely reason for this observation is the pricing strategy of these tobacco products. Bidis cost nearly one-tenth of the cost of cigarettes. Further bidis are manufactured in small scale industries with favourable existing policies and vigilant anti-tobacco campaigns do not address bidi usage with priority. The factors associated with tobacco usage like illiteracy, farmer by occupation, higher socio-economic status, family history of smoking suggest a traditional inheritance of tobacco trend among the wealthy yet illiterate agriculturists. This is further evident from the lower age of initiation among the males (10-20 years, 39.6%) which is a little higher compared to that reported by Joshi *et al* ⁽⁵⁾ showing 52% initiated tobacco usage at 25-30 years of age.

Conclusion

The study showed a wider usage of smoking form of tobacco especially bidis by young males in rural areas driven by social factors like illiteracy, higher socio-economic status and familial behaviour. This demands the focus of anti-tobacco policies of India on bidis in anti-tobacco campaigns and well-structured behaviour change communication strategies at individual, family and community level.

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