

# A cross – sectional study on factors associated with tobacco use among adolescents in an urban slum area of South India

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## Abstract

**Introduction:** Worldwide, the second major cause of death is use of tobacco. Throughout the world, 5 million people are killed each year due to use of tobacco products. According to WHO estimates for the year 2020, about 10 million deaths will be caused by use of tobacco and most of these deaths will occur in developing countries. Use of tobacco in various forms is increasing in urban slum area. The present study was undertaken to find out prevalence of tobacco use in adolescents of urban slum area of South India and various factors associated with its use. **Materials and Methods:** The present community based cross sectional study was conducted during September –December 2009 in an urban slum area of South India. All adolescents in the age group of 10-19 were included in the study. The study subjects were interviewed by predesigned and pretested questionnaire. Data in respect of age, sex, tobacco use by them, tobacco use by other family members was collected. **Results:** Total no of study subjects included in the study were 287.68.99 % study subjects were males. Most of the study subjects were in the age group of 10-13 yrs (39.72%). Most of the study subjects were literate (81.18). The overall prevalence of tobacco use in the slum area was found to be 31.71%. 20.88 % of adolescents initiated tobacco before adolescence (before 10 years) and 52.75 % adolescents initiate tobacco in early adolescence period (10 to 13 years). Curiosity (67.03%) and peer pressure (42.86%) were the main reasons behind starting and continuing tobacco use. **Conclusion:** Curiosity and peer pressure were the main reasons behind using tobacco so simple stray knowledge about harmful effects of tobacco was not enough to bring about any change in behavior. Strong motivation with informatory knowledge is likely to change such behavior. Behavior Change Communication activities among adolescents and their family members should be carried out in the slum area as well as in the schools.

**Keywords:** Adolescents, tobacco use, urban sum area.

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Received Date: 14/11/2014 Revised Date: 26/12/2014 Accepted Date: 31/01/2015

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Quick Response Code:	Website: <a href="http://www.statperson.com">www.statperson.com</a>
	Volume 5 Issue 1

## INTRODUCTION

Worldwide, the second major cause of death is use of tobacco. Throughout the world, 5 million people are killed each year due to use of tobacco products. According to WHO estimates for the year 2020, about 10

million deaths will be caused by use of tobacco and most of these deaths will occur in developing countries.<sup>1</sup> Any person in the age group of 10-19 yrs is considered as adolescence as per WHO definition of adolescents.<sup>2</sup> During the adolescence age group, habit of tobacco use starts. The prevalence of consumption of tobacco and smoking was found to be 4.1 and 1.8 percent respectively among adolescent age group as per the National Family Health Survey-2 (NFHS-2).<sup>3</sup> According to the Global Youth Tobacco Survey (GYTS) which was done between years 2000-2004 among students from grades 8-10 in India found that current users of tobacco in any form were 17.5% students, 14.6% students were using smokeless tobacco and 8.3% were current smokers.<sup>4</sup> Daily approximately 5500 children and adolescents start using tobacco products in India, some as young as 10 years old.<sup>5</sup> Use of tobacco in various forms is increasing

in urban slum area. The present study was undertaken to find out prevalence of tobacco use in adolescents of urban slum area of South India and various factors associated with its use.

### MATERIALS AND METHODS

The present community based cross sectional study was conducted during September –December 2009 in an urban slum area of Guntur (A.P.) which is the field practice area of Department of Community Medicine, Katuri Medical College, Guntur. Out of 4 area, one area Shrinivas Thota was selected for the study. In that area, all adolescents in the age group of 10-19 were included in the study. The study subjects were interviewed by predesigned and pretested questionnaire. Data in respect of age, sex, tobacco use by them, tobacco use by other family members was collected. The information collected was analyzed by using SPSS software. Statistical analysis comprised calculating proportions of tobacco users and cross-tabulation with the chi square test.

### RESULTS

Total no of study subjects included in the study were 287.68.99 % study subjects were males. Most of the study subjects were in the age group of 10-13 yrs (39.72%) followed by 33.45 % in the age group of 17-19 yrs. Most of the study subjects were literate (81.18%).18.82% study subjects were illiterate. The overall prevalence of tobacco use in the slum area was found to be 31.71% (91 out of 287 adolescents), while the prevalence of tobacco chewing was 80.22% and both chewing and smoking was 19.78%.It was observed that 35.16% of adolescent tobacco users were chewing more than 5 packets (10g. each) of smokeless tobacco per day. The no. of cigarettes used varied from 1 – 18 per day. (Table 1). 20.88 % of adolescents initiated tobacco before adolescence (before 10 years) and 52.75 % adolescents initiate tobacco in early adolescence period (10 to 13 years). Curiosity (67.03%) and peer pressure (42.86%) were the main reasons behind starting and continuing tobacco use. (Table 2) The prevalence of tobacco use was 53.13% among adolescents of 17-19 years and this was significantly higher than other two groups. Tobacco use was higher in male adolescents (36.36%) than female adolescents (21.35%).But this was not found statistically significant. Tobacco use was not found statistically significant with respect to education status of adolescents. Tobacco use by other family members (parents or siblings) was found to have significant influence on adolescents to use tobacco.

**Table 1: Forms of tobacco use by adolescents**

Forms of tobacco use(n=91)	No (%)
Chewing	73(80.22%)
Chewing + smoking	18(19.78%)
No of packets(10 g.) of chewable tobacco per day	
< 5 packets	59(64.84%)
>5 packets	32(35.16%)

**Table 2: Reasons for tobacco use of adolescents**

Reasons	No (%)
Curiosity	61(67.03%)
Peer pressure	39(42.86%)
Relaxation	23(25.27%)
Taste	14(15.38%)

**Table 3: Factors associated with tobacco use by adolescents**

Factors	Total no of adolescents	Tobacco use No (%)	Chi square value
<b>Age</b>			
10-13 yrs	114	18(15.79%)	X <sup>2</sup> =17.12 P < 0.0001 <b>S</b>
14-16 yrs	77	22(28.57%)	
17-19 yrs	96	51(53.13%)	
<b>Sex</b>			
Male	198	72(36.36%)	X <sup>2</sup> =3.47 P > 0.05 <b>NS</b>
Female	89	19(21.35%)	
<b>Education</b>			
Illiterate	54	15(27.78%)	X <sup>2</sup> =0.25 P > 0.05 <b>NS</b>
Literate	233	76(32.62%)	
<b>Family Member using Tobacco</b>			
Yes	221	82(37.105)	X <sup>2</sup> =0.25 P > 0.05 <b>NS</b>
No	66	9(13.64)	

### DISCUSSION

The overall prevalence of tobacco use among adolescents in urban slum area was found to be 31.71%. Sharma *et al.* (2010) in their study among adolescent students found the prevalence of tobacco use to be 20.9%.<sup>6</sup> This behavior is found to be higher in adolescents of slum area which may be attributed to lack of recreation facilities, work culture, lack of access to health education and over all compromised living condition. The proportion of tobacco chewing was 80.22% and both chewing and smoking was 19.78%. In a study by Arora M *et al* (2010), they reported that chewing tobacco being the most popular among adolescents.<sup>7</sup> 20.88 % of adolescents initiated tobacco before 10 years and 52.75% in early adolescence period i.e. 10 - 13 years. In the same study, the participants reported that they started using tobacco at a very early age as early as 6 years and used tobacco regularly.<sup>7</sup> Ansari *et al* (2010) reported that about 23.64% power loom workers initiated tobacco use at 10 years of age or earlier.<sup>8</sup> Curiosity (67.03%) and peer pressure (42.86%) were the main reasons behind starting and continuing tobacco use. The life style in slums and discontinuation from studies may be playing a role in the tobacco use among adolescents. In a study by Shah *et al* (2005), the

most common reason for starting tobacco consumption was for the sake of adventure (34.2%) followed by tension (25.4%), peer pressure (15.8%).<sup>9</sup> The prevalence of tobacco use was 53.14% among adolescents of 17-19 years and this was significantly higher than other two age groups. In the study by Sharma *et al*, they found higher prevalence among students aged 16-19 than those in the age group of 14 – 15 years.<sup>6</sup> In the present study tobacco use is higher in male adolescents which is similar to the study by Sharma *et al* where prevalence is 23.8% in male adolescent students and 14.9% in female students.<sup>6</sup> Tobacco use was not found statistically significant with respect to education status of adolescents. But in the study by Ansari *et al* among power loom workers, they reported that tobacco consumption was more prevalent in those with less education and found an extremely negative association between education and tobacco consumption.<sup>8</sup> Tobacco use by other family members (parents or siblings) was found to have significant influence on adolescents to use tobacco. These findings are similar to observation by WHO that adolescents whose parents or siblings smoke are most likely use tobacco.<sup>10</sup> Kumari R *et al* (2008) also reported similar results that tobacco use is considerably higher among male medical students belonging to families where tobacco use was prevalent ( $p < 0.001$ ).<sup>11</sup>

## CONCLUSION

Tobacco use by family members is likely to influence adolescents, as they develop inclination and liking towards such behavior. Curiosity and peer pressure were the main reasons behind using tobacco so simple stray knowledge about harmful effects of tobacco was not enough to bring about any change in behavior. Strong motivation with informatory knowledge is likely to change such behavior. Behavior Change Communication activities among adolescents and their family members

should be carried out in the slum area as well as in the schools.

## ACKNOWLEDGEMENTS

We would like to thank the study participants for their co-operation.

## REFERENCES

1. Mackay J, Eriksen M. The tobacco atlas 2002. Geneva: World Health Organization; 2002.
2. World Health Organization. Adolescent friendly health services: an agenda for change. Geneva: WHO; 2002.
3. National Family Health Survey (2000). India 1998-1999 National Family Health Survey – 2 (NFHS-2). Background characteristics of Households. International Institute for Population Sciences (IIPS). Mumbai, India 2000;30
4. Arora M, Reddy KS. Global Youth Tobacco Survey (GYTS) Delhi. Indian Pediatr 2005; 42: 850-851.
5. Patel DR, Greydances DE. Substance abuse: a Paediatric Concern. Indian J. Paediatrics 1999; 66:557 – 567.
6. Sharma R, Grover VL, Chaturvedi S. Tobacco use among adolescent students and the influence of role models. Indian J of community Medicine 2010; 35:272-275.
7. Arora M, Tewari A, Tripathy V, Nazar GP, Juneja NS, Ramakrishnan S *et al*. Community-based model for preventing tobacco use among disadvantaged adolescents in urban slums of India. Health Promot. Int. (2010) doi: 10.1093/heapro/daq008 First published online: February 27, 2010.
8. Ansari ZA, Bano SN, Zulkifle N. Prevalence of tobacco use among power loom workers – A cross sectional study. Indian J of Community Medicine 2010; 35:34-39.
9. Shah VN, Verma PB, Tripathi CB. Knowledge, Attitude and Practice regarding tobacco consumption among college students of Bhavnagar City (Gujarat). Indian J of Community Medicine 2005; 30:39-40.
10. World Health Organization. The health of young people: A challenge and a promise. Geneva: WHO; 2002.
11. Kumari R, Nath B. Study on use of tobacco among male medical students in Lucknow, India. Indian J of Community Medicine 2008; 33:100-103

Source of Support: None Declared  
Conflict of Interest: None Declared