

## Original Research Article

# KNOWLEDGE AND PRACTICE OF PASSIVE SMOKING: A PARENTS' PERSPECTIVE IN URBAN FIELD PRACTICE AREA OF GIMS, KALABURAGI.

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### ABSTRACT

**Background:** Passive smoking is associated with around 0.6 million deaths worldwide each year. Over one-third of the population is frequently exposed to cigarette smoke, either directly or indirectly. Smoking by parents in the presence of their children is seen as a serious public health concern. Although the hazards associated with smoking are well established, many parents still choose to smoke around their children. **Objectives:** The objective of this study was to estimate the prevalence of smokers and to assess the parents' knowledge and practice about passive smoking.

**Material and Methods:** A community based cross-sectional study was carried out by random selection of 300 subjects from four wards in the urban field practice area of GIMS (Gulbarga institute of medical sciences) Kalaburagi, in October 2023 to January 2024. Data was collected using a pretested, semi-structured questionnaire and were entered and analysed in MS excel 2019.

**Results and Conclusion:** 31%, 58.3% and 10.7% of subjects were having good, average and poor knowledge respectively and 43.7% of subjects were current smokers. Knowledge was significantly associated with age groups, education, occupation and socio-economic status. 58.8% were having satisfactory practices of passive smoking. The aggressive campaigns and programs need to be undertaken to enhance awareness about passive smoking among parents.

**Keywords:** Knowledge, Practice, Passive smoking, Parents Perspective.

## INTRODUCTION

Passive smoking or second-hand smoking (SHS) is defined as smoke that emitted from a tobacco product or exhaled from a person who smokes that is inhaled by a person who does not smoke. Third hand Smoking is tobacco smoke that is absorbed onto surfaces and exposes a person who does not use tobacco to its components by direct contact and dermal absorption, ingestion, or off-gassing and inhalation. Third hand smoke may react with oxidants and other compounds in the environment to yield secondary pollutants.<sup>[1]</sup>

It has been determined that indirect exposure, also known as side stream smoke, passive smoking, or

involuntary smoking, is a source of indoor air pollution that can affect those who do not smoke.<sup>[2]</sup>

The mixture of gases and microparticles in tobacco smoke that is inhaled during passive smoking contains nicotine along with other irritants, carcinogens, and hazardous chemicals. Children are particularly vulnerable to tobacco smoke exposure because they breathe more frequently per minute than adults do, their hepatic metabolism is still developing, and they inhale more air per unit of body weight. It has been shown that exposure to passive smoking during childhood can lead to recurring respiratory tract inflammations, asthma, and sudden infant death syndrome.<sup>[3]</sup>

Children residing in households with several smokers are more susceptible to unintentional smoke

exposure, leading to numerous detrimental health consequences. Even after taking other sociodemographic characteristics into consideration, children who live with smokers are as more likely to smoke. In addition to preventing kids from second hand smoke, a smoke-free workplace promotes a social norm against tobacco use that discourages and prohibits future smoking. Children are primarily exposed to smoking in three places: their homes, cars, and outdoor play areas.<sup>[4]</sup>

The benefits of isolating non-smokers from tobacco smoke have come to attention as awareness of the dangers of passive smoking has grown over time. Particularly, smoke-free campaigns have altered social norms and attitudes toward SHS exposure and have played a significant role in the decrease in the prevalence of smoking. However, as the world's population rises, so does the number of smokers, putting more non-smokers at danger of exposure to second hand smoke.<sup>[5]</sup>

In addition to protecting kids from passive smoking, a smoke-free workplace can discourage or stop smokers in the future. The only way to ensure complete safety for non-smokers is to prohibit smoking in residences, workplaces, and public areas. Putting air filters in place, separating smokers from non-smokers, or opening windows won't stop individuals from inhaling in second hand smoke. As passive smoking remains one of the important and unexplored areas, we conducted this study in Kalaburagi city, Karnataka, to assess the parents' perspective on passive smoking effects on children.

**Objectives:** To estimate the prevalence of smokers among parents and to assess the parent's knowledge and practice about passive smoking effects on children in urban field practice area of Gulbarga Institute of Medical Sciences (GIMS) Kalaburagi, Karnataka.

## MATERIAL AND METHODS

A community based cross-sectional study was conducted in urban field practice area of, GIMS Kalaburagi, Karnataka, for a period of 4 months from October 2023 to January 2024. Study participants were parents between the age group of 18 to 59 years and residing in urban field practice area. Sample size was calculated to be 288 (rounded to 300) with prevalence of 25% (K S Poornima et al) using  $N=4pq/d^2$  with 95% confidence interval and allowable error of 5%.<sup>6</sup> The study participants were selected by simple random sampling technique. Manikeswari has total population of 62471, among these 4 wards are adopted by Department of Community Medicine, GIMS, Kalaburagi as field practice area. 75 subjects from each ward were selected randomly by house-to-house survey. Informed consent was taken from eligible subjects after explaining the purpose of study. Data was collected using a pretested, semi-structured questionnaire, which consisted of two

sections, socio-demographic profile of parents and tool to assess the parent's knowledge and practice regarding passive smoking. Tool contained 10 questions about knowledge and 7 questions about practice of passive smoking. Each question was awarded 1 and 0 score for positive and negative responses respectively. Validity and reliability of this tool was tested by experts. Data and collected and analysed in MS excel 2019.

### Parent's knowledge about passive smoking scale Yes – 1, No – 0

Knowledge	Score
Poor	1-3
Average	4-7
Good	8-10

### Parent's practice about passive smoking scale Yes – 1, No – 0

Practice	Score
Unsatisfactory	1-3
Satisfactory	4-7

## RESULTS

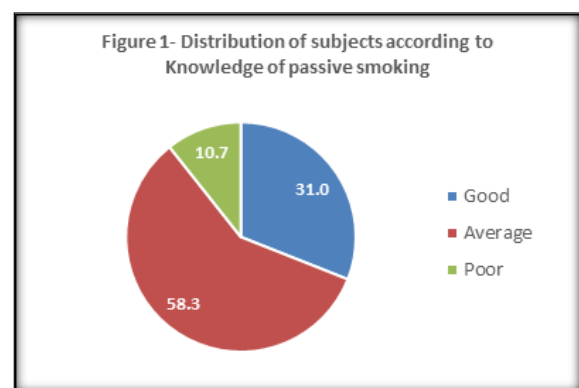


Figure 1: Distribution of subjects according to Knowledge of passive smoking

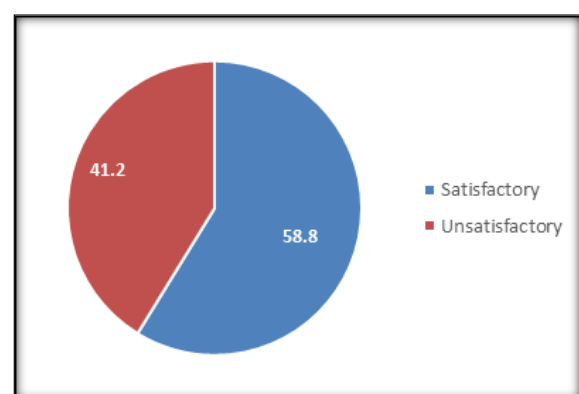


Figure 2: Distribution of subjects according to Practice of passive smoking

In our study, out of total 300 subjects, 58.3% of subjects had average knowledge regarding hazards of passive smoking, 31% and 10.7% had good and poor knowledge respectively (Figure 1). Out of the total, 131 were current smokers, majority (75.6%) smoked less than 5 cigarettes/bidis per week, 17.6%

smoked 6 to 10 cigarettes/bidis per week and remaining 6.9% smoked more than 10 cigarettes/bidis per week. Among these, most of them (58.8%) had satisfactory practices and rest (41.2%) were having unsatisfactory practices. [Figure 2]

In this study, subjects with poor knowledge increased with higher age groups, subjects with average knowledge were more in younger age groups. Subjects with education of graduation and above had good knowledge about passive smoking as compared to illiterate, correspondingly subjects with poor knowledge were higher in illiterate category. Subjects with private jobs had good

knowledge than self-employed, subjects with poor knowledge were highest in government job and self-employed. Good knowledge increased with increased socio-economic status and similarly poor knowledge was more common in lower socio-economic strata. Age group, education, occupation and socio-economic status were significantly associated with knowledge about passive smoking.

Among the total 131 smokers, education and socio-economic status were significantly associated with practices of passive smoking. Graduates and illiterates had higher satisfactory practices than compared to those with schooling level education.

**Table 1: Distribution of subjects according socio-demographic profile**

		Number	Percentage
Age group	21 to 30	84	28.0
	31 to 40	114	38.0
	41 to 50	85	28.3
	51 and above	17	5.7
Gender	Male	297	99.0
	Female	3	1.0
Marital Status	Married	290	96.7
	Divorced	6	2.0
	Widow	4	1.3
Religion	Hindu	294	98.0
	Muslim	4	1.3
	Christian	2	0.7
Education	Illiterate	47	15.7
	Schooling	212	70.7
	Graduate and above	41	13.7
Occupation	Self employed	167	55.7
	Government Job	49	16.3
	Private Job	84	28.0
Socio-economic status	Upper	31	10.3
	Upper Middle	93	31.0
	Middle	99	33.0
	Lower Middle	56	18.7
	Lower	21	7.0
Smoking	Present	131	43.7
	Absent	169	56.3
	Total	300	100

**Table 2: Association of Knowledge and sociodemographic variables**

		Good		Average		Poor		Total	
		No.	%	No.	%	No.	%		
Age group	21 to 30	21	25	57	67.8	6	7.2	84	Chi Square=12.91 P Value = 0.04
	31 to 40	31	27.2	72	63.1	11	9.6	114	
	41 to 50	36	42.3	37	43.5	12	14.1	85	
	51 and above	5	29	9	53.9	3	17.1	17	
Education	Illiterate	15	32.9	21	44.7	11	23.4	47	Chi Square=22.48 P Value < 0.01
	Schooling	57	26.9	139	65.6	16	7.5	212	
	Graduate and above	21	51.2	15	36.6	5	12.2	41	
Occupation	Self Employed	39	23.4	107	64.1	21	12.6	167	Chi Square=15.86 P Value < 0.01
	Government Job	15	30.6	27	55.1	7	14.3	49	
	Private Job	39	46.4	41	48.8	4	4.8	84	
Socio-economic Status	Upper	17	54.8	13	46.4	1	3.6	31	Chi Square=19.79 P Value = 0.01
	Upper Middle	26	28	60	71.5	7	8.5	93	
	Middle	23	23.2	65	68.4	11	11.6	99	
	Lower Middle	19	33.9	29	51.7	8	14.3	56	
	Lower	8	38.1	8	38.1	5	13.5	23.4	
	Total	93	100	175	100	32	100	300	

**Table 3: Association of Practice and Sociodemographic variables**

		Satisfactory		Unsatisfactory		Total	
		No.	%	No.	%		
Age group	21 to 30	12	40.0	18	60.0	30	Chi Square= 5.82 P Value = 0.12
	31 to 40	35	64.8	19	35.2	54	

	41 to 50	26	65.0	14	35.0	40	
	51 and above	4	57.1	3	42.9	7	
<b>Education</b>	Illiterate	15	78.9	4	21.1	19	<b>Chi Square=6.75 P Value = 0.03</b>
	Schooling	45	51.1	43	48.9	88	
	Graduate and above	17	70.8	7	29.2	24	
<b>Occupation</b>	Government	18	75.0	6	25.0	24	<b>Chi Square=3.41 P Value = 0.18</b>
	Private	21	58.3	15	41.7	36	
	Self Employed	38	53.5	33	46.5	71	
<b>Socio-economic status</b>	Upper	10	83.3	2	16.7	12	<b>Chi Square=14.24 P Value = 0.006</b>
	Upper Middle	15	42.9	20	57.1	35	
	Middle	23	51.1	22	48.9	45	
	Lower Middle	17	65.4	9	34.6	26	
	Lower	12	92.3	1	7.7	13	
	Total	77	100	54	100	131	

## DISCUSSION

This study was conducted in slum population of Kalaburagi city, Karnataka and almost all the subjects were males, married and belonging to Hindu religion. 58.3% and 31% of subjects had average and good knowledge regarding passive smoking respectively. However, high knowledge levels were reported by Sandra et al in Mangalore and Chowdary et al in Comilla city of Bangladesh.<sup>[2,7]</sup> 70% and 28% of subjects had good and average knowledge respectively in Mangalore study, this can be attributed to, as the study was among mothers and in urban settings. Chowdary et al found higher awareness levels compared to our study, as it was conducted among women in reproductive age group. In our study, even though 90% of subjects had satisfactory knowledge, practice among smokers remain poor with unsatisfactory practice at 41.2%. As noted by Farideh et al, risk perception of hazards of passive smoking has insignificant effect on smoking behaviour.<sup>[8]</sup> It seems risk perception alone is not prime factor to curtail or stop habitual smokers from smoking in the presence of their children. 43.7% of subjects were smokers in present study, a lower number (35.7%) was noted by Farideh Shiva et al. Younger population were found to have better knowledge of passive smoking and older age groups have poorer knowledge in this study, which was similar to that reported by Poornima et al where younger population being more concerned about effects of passive smoking.<sup>6</sup> Education levels of graduate and above showed higher knowledge of hazards of SHS, however, Poornima et al did not find any association regarding knowledge and education levels. In present study, knowledge was significantly more among those working in private companies or jobs as compared to those in government job or self-employed. A similar association was found by Sandra et al about knowledge and maternal occupation.<sup>[2]</sup> Lopez et al found higher educational level were associated with lower exposure to SHS and Verma et al also found higher exposure among uneducated.<sup>[9,10]</sup> Farideh et al revealed a positive association between maternal education and no smoking in family, paternal education decreased smoking but the association was not significant.<sup>8</sup>

Our study also revealed association between education and practice of passive smoking. In our study, subjects in upper and lower class were significantly associated with satisfactory practices. However, Farideh et al found lower socio-economic status to be risk factor for smoking.<sup>8</sup> In a study by Verma et al, to find decadal trend of indoor smoking exposure found no association between socio-economic status and smoking but found higher smoking among lower socio-economic groups.<sup>[10]</sup>

## CONCLUSION

This study was done among parents to assess their perspective regarding passive smoking. 31%, 58.3% and 10.7% of subjects were having good, average and poor knowledge respectively and 43.7% of subjects were current smokers. Knowledge was significantly associated with age groups, education, occupation and socio-economic status. 58.8% were having satisfactory practices of passive smoking. Practices were significantly associated with education and socio-economic status

## REFERENCES

- Jenssen BP, Walley SC, Boykan R, Little Caldwell A, Camenga D. Section on nicotine and tobacco prevention and treatment, committee on substance use and prevention. Protecting children and adolescents from tobacco and nicotine. American Academy of Paediatrics. 2023 May 1; 151(5).
- Saldanha SJ, Fernandes PJ, Antony EM, Manar B, Jai J, Johns E, et al. Knowledge of Mothers on the effect of Passive Smoking in Children in a selected Hospital at Mangalore. Asian J Nurs Edu Res 2017; 7:43-7.
- Ratajczak A, Ratajczak K, Feleszko W. A cross-sectional study of smoking behaviors and attitudes of parents in pediatric primary care settings. International Journal of Environmental Research and Public Health. 2018 Jul; 15(7):1384.
- Zhang X, Martinez-Donate A, Rhoads N. Parental practices and attitudes related to smoke-free rules in homes, cars, and outdoor playgrounds in US households with underage children and smokers, 2010–2011. Prev Chronic Dis. 2015 Jun 18;12: E96.
- Flor LS, Anderson JA, Ahmad N, Aravkin A, Carr S, Dai X, et al. Health effects associated with exposure to second-hand smoke: a Burden of Proof study. Nat Med. 2024 Jan;30(1):149-167.
- Poornima KS, et al. Parental perceptions towards passive smoking: a cross-sectional survey in Vikarabad town, India. Sri Lanka Journal of Child Health. 2016 Mar 5; 45(1).

7. Chowdhury AM, Lima FA, Alam MH, Chowdhury NM, Pervin S, Hossain MA. Knowledge, Attitude and Exposure to Second hand Smoking Among Women in Rural Setting. *Central Medical College Journal*. 2023 Jan 21;7(1):26–31.
8. Shiva F, Padyab M. Smoking practices and risk awareness in parents regarding passive smoke exposure of their preschool children: A cross-sectional study in Tehran. *Indian J Med Sci*. 2008 Jun;62(6):228-35.
9. López M, Arechavala T, Contiente X, Schiaffino A, Pérez-Ríos M, Fernández E. Social inequalities in second hand smoke exposure in children in Spain. *Tobacco Induced Diseases*. 2018 Apr 18; 16:14.
10. Verma BK, Verma M, Mondal M, Dubey DK, Nath DC, Verma V. Alarming Trend in Under-Five Indian Children's Exposure to Indoor Tobacco Smoke. *Cureus*. 2023 Apr 14;15(4):37571.