

Awareness about Tobacco use among Auto- Rickshaw Drivers in Belagavi, North Karnataka

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Abstract

Background: Auto – rickshaws are most commonly used mode of transportation in cities where metros or application-based cab aggregators (ABCA) are either non-existent / not available. Auto rickshaw drivers (ARD's) are under constant physical and mental pressure due to various factors most importantly illiteracy, poverty, lack of awareness about hazards of addictions which lead to various habits majority being tobacco use. Studies have found that overall prevalence of tobacco use among ARD's is very high compared to general population.

Objectives: To know level of awareness about tobacco use among ARD's in Belagavi, North Karnataka.

Methods: It was a cross sectional study conducted among 600 regular ARD's of Belagavi City Corporation between January to December 2016. Estimated sample size was 600. Two ARD's who were last in queue were selected from 300 major auto rickshaw stands. Questionnaire was adopted from Global Adult Tobacco Survey (GATS) questionnaire. Data was collected by personal interview after getting informed consent. Data compilation and analysis was done using SPSS software. Study was approved by Institutional Ethics Committee of J. N. Medical College, KAHER, Belagavi.

Results: Most (88.66%) of the participants knew that tobacco in any form caused serious illness. Cancers (72.66%) were the most commonly known illnesses. Most of the participants supported law prohibiting smoking in indoor work places (99%) and favored increase of taxes on tobacco products (94.5%).

Conclusion: Although the awareness regarding hazards of tobacco has increased in recent days, actual practice remains a challenge.

Keywords: Auto-rickshaw drivers, Tobacco, Awareness, Karnataka

Introduction

The three-wheeled motorized vehicles, popularly known as auto rickshaws, are a backbone to urban mobility. Auto – rickshaws are still the most commonly used mode of transportation in Tier II & III cities where metros or application-based cab aggregators (ABCA) are either non-existent or not available. Auto rickshaw drivers work for over 10-12 hours per day and form an important part of the urban informal

sector in India. They are generally self-employed and lack employment benefits such as health insurance and social security. Income insecurity is a significant concern for the drivers – they earn on a daily basis leading to no fixed income. Health expenses are a big challenge for most of them. They suffer from serious respiratory health threats due to constant exposures to vehicular pollution. They are also prone to road accidents given poor road infrastructure and badly

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maintained vehicles. On the road for most of their day, they suffer due to the poor quality and availability of hygienic water and sanitation facilities in the country, leading to further health issues.

Auto rickshaw drivers are under constant physical and mental pressure due to irregular shifts, continuous variation in fuel prices, long waiting hours, illiteracy, poverty, lack of knowledge about hazards of tobacco and other socioeconomic factors which lead to various habits majority being tobacco use. [1-4]

Tobacco use imposes a huge burden of disease in India and is a major global public health problem. The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than 8 million people a year. More than 7 million of those deaths are the results of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke. [5]

In the Indian context, tobacco use implies a varied range of chewing and smoking forms of tobacco available at different price points, reflecting the varying socio-economic and demographic patterns of consumption. [6]

Cigarette smoking in any form harms nearly every organ of the body, causes many diseases, and reduces the health in general. [7-8] It causes diminished overall health, increased absenteeism from work, and increased health care utilization and cost. [7] There are many diseases that are caused, increased or exacerbated by use of tobacco. [9]

Author intends to find the level of awareness about tobacco use among auto rickshaw drivers in Belagavi, a northern district of Karnataka.

Materials and Methods

Study design

This was a descriptive, cross-sectional study conducted on registered auto rickshaw drivers plying in Belagavi city, in the period of January to December 2016. Sample size was calculated to be 597 & rounded off to 600 based on the estimated prevalence of 84% [10] and absolute error of 3%. The inclusion criteria were as follows:

- a. Registered, regular auto - rickshaw drivers aged above 18 years.

- b. Permanent residents of Belagavi city from the past one year.

Auto rickshaw drivers driving on part time basis were excluded.

Sampling procedure

As per the information from the Regional transport office, the city had around 300 major auto rickshaw stands and among each stand two auto rickshaw drivers who were last in the queue were selected purposively for the study. This was to have ample amount of time for the participant to be interviewed for the study, which could not have been done if someone else from the queue were selected as they had to discontinue the study if their auto rickshaw was hired meanwhile.

Study tools

Questionnaire was adopted from the Global Adult Tobacco Survey (GATS) questionnaire [11] and customized as per the requirements of the study.

Methodology

Investigator made visits to all the 300 major auto rickshaw stands within the limits of Belagavi City Corporation and participants were identified according to the sampling procedure. These participants were explained about the purpose of the study and after the written informed consent, they were interviewed in the auto rickshaw stands or any convenient place nearby using pre-designed and pre-tested questionnaire adopted from GATS. [11].

The participants were given free chance to discontinue from the study at any given point of time for any privacy, confidential or work related issues. Care was taken to make sure that the participants did not have any hindrance in their work.

Data analysis

The data was analyzed through descriptive statistics and Chi-square test using the SPSS software. A value of $P < 0.05$ was considered statistically significant.

Results

All the participants were male with age ranging between 18 to 70 years and an average age of 39.71 ± 11.07 years. Mean years in the present occupation was 15.80 ± 10.11 years and participants worked over a mean length of 9.43 ± 1.82 hours per day.

Majority of them (89.83%) were married, 371 (61.83%) stayed in nuclear families and 346 (57.67%) resided in pucca house.

Among the participants, 373 (62.17%) were using tobacco in one or the other form. Cigarettes (87.05%) were the most commonly smoked form while gutkha (54.93%) was the commonest smokeless form. Majority of the users had initiated their habit before 20 years of age (46.38%). Mean age at initiation was 23.22 ± 8 years for smoke form and 23.36 ± 7.99 years for smokeless form. Mean duration of use was 15.31 ± 10.29 years. More than half of the participants (54.96%) used tobacco within an hour of waking up. Almost three fourths of those using tobacco never did it in front of their children (74.8%).

[Table 1] Most of the users (54.69%) were advised to quit by a health care professional in the last one year. Among the users, 227 (60.86%) had attempted to quit usage in the last one year and more than half of them (54.63%) could sustain it for few months before resuming usage. Self-motivation (90.75%) was the strongest driving force to quit. Majority of the users planned to quit within next one month (28.69%).

[Table 2] Most of the participants (88.66%) knew that tobacco in any form caused serious illnesses. Cancers (72.66%) were the most commonly known illnesses caused by tobacco.

[Table 3] Most of the participants supported the law prohibiting smoking in indoor work places (99%) and favored increase of taxes on tobacco products (94.5%).

Table 1. Details of tobacco quit by participants

Characteristics		n (%)
Advised to quit by Health care professional in last one year	Yes	204 (54.69)
	No	169 (45.31)
Attempts to quit tobacco in last 1 year	Yes	227 (60.86)
	No	146 (39.14)
Duration of previous quit attempt	Months	124 (54.63)
	Weeks	17 (7.49)
	Days	68 (29.95)
	Less than 1 day	15 (6.61)
	Don't know	3 (1.32)
Methods adopted to quit tobacco**	Counselling	13 (5.73)
	Nicotine replacement therapy	5 (2.2)
	Switching to other forms	6 (2.64)
	Own will / self-motivation	206 (90.75)
	Badesoap	8 (3.52)
	Religious reasons	2 (0.88)
	Chewing gum	8 (3.52)
Description of thinking about quitting tobacco	Quit within next month	107 (28.69)
	Thinking within next 12 months	82 (21.98)
	Quit someday, but not next 12 months	88 (23.59)
	Not interested in quitting	39 (10.46)
	Don't know	57 (15.28)
**Multiple users had adopted more than one methods to quit		

Table 2. Knowledge & Practices of ARD's related to tobacco

Characteristics		n		Percentage
		Tobacco users (%)	Non users (%)	Total (%)
Does use of tobacco in any form casues serious illness	Yes	324 (86.86)	208 (91.63)	532 (88.66)
	No	34 (09.12)	06 (02.64)	40 (06.67)
	Don't know	15 (04.02)	13 (05.73)	28 (04.67)

Characteristics	n	Percentage	
Illnesses known to be caused by use of tobacco*	Cancers	436	72.66
	Heart disease	56	9.33
	Impotence	15	2.5
	Premature aging	6	1
	Respiratory disease	160	26.66
	Gastritis/ acidity	39	6.5
	Weakness	37	6.16
	Blindness	3	0.5
	Headache	10	1.66
	Hypertension	4	0.67
	Diabetes mellitus	4	0.67
	Tuberculosis	2	0.33
	Renal diseases	8	1.33
	Others	87	14.5
	Don't know	97	16.16
Usual place of tobacco use**	Home	141	37.8
	Tea stall	170	45.57
	Auto stand	288	77.21
	While driving	63	16.89
	Others	37	9.91
Motivation for tobacco use#	Parents	12	3.21
	Other family members	19	5.09
	Friends	265	71.04
	Fellow auto rickshaw drivers	148	39.67
	Film stars	28	7.5
	Self / curiosity	28	7.5
	Others	12	3.21

* Multiple participants reported more than one illness

** Multiple tobacco users used tobacco products at more than one place

Multiple users were motivated by more than one group for use of tobacco

Table 3. Attitude of ARD's regarding tobacco and its regulations

Characteristics Tobacco users (%)		n		Percentage
		Non users (%)	Total (%)	
Opinion on law prohibiting smoking in indoor work places and public places	Support	373 (100)	221 (97.36)	594 (99.0)
	Not sure	0	06 (02.64)	06 (01.00)
Opinion about increasing taxes on tobacco products	Favour	349 (93.57)	218 (96.04)	567 (94.50)
	Oppose	24 (06.43)	03 (1.32)	27 (04.50)
	Not sure	0	06 (2.64)	06 (01.00)
Opinion on law prohibiting advertisements of tobacco products	Favour	334 (89.54)	191 (84.14)	525 (87.50)
	Oppose	39 (10.46)	18 (07.93)	57 (09.50)
	Not sure	0	18 (07.93)	18 (03.00)
Are you aware about harmful effects of second hand smoke	Yes	310 (83.11)	216 (95.16)	526 (87.67)
	No	63 (16.89)	05 (02.20)	68 (11.33)
	Not sure	0	06 (2.64)	06 (01.00)
Warning labels led to thinking about quitting	Yes	339		90.89
	No	34		9.11
In the last one month have you asked your children or anyone less than 18 years to buy tobacco products?	Yes	38		10.19
	No	335		89.81

Discussion

Auto rickshaw drivers spend a considerable amount of time in an environment full of pollutant gases, noise, continuous stress, accelerations and decelerations, lateral swaying from side to side and whole-body up and down vibrations when the vehicle is in motion. Further poor lifestyle practices like irregularity of meals, no proper rest rooms, awful quality of sanitary toilets, bad posture while driving and stressful occupational conditions during their working hours augment their health problems. Such working parameters may be associated with various health problems. [2, 4, 12-13]

The present study was done to find the level of awareness about use of tobacco among auto rickshaw drivers. Among the 600 study participants, all were male which was consistent with other studies conducted among similar sub groups. [10, 14] Most of the participants in this study had high school education (54.50%). The educational level of participants was higher when compared with other similar studies. [10] This increase in education level may be attributed to better literacy level among south India as compared to the north.

Mean years in present occupation was 15.80 ± 10.11 years whereas it was 17.70 ± 7.62 years in the study done in Nagpur. [14] Mean length of working hours per day was 9.43 ± 1.82 hours while it was 11.52 ± 2.29 hours in the study done in Nagpur. [14]

Prevalence of tobacco use in the present study in any form was found to be 62.17%. The study among auto rickshaw drivers in Gwalior showed prevalence to be 84.26% [10], 64.44% among auto rickshaw drivers in Bareilly, Uttar Pradesh [15] and 69% among auto rickshaw drivers in South Delhi. [16] The difference in prevalence with Gwalior study can be attributed to the fact that the educational levels of the participants in the present study was high compared to the Gwalior study and both the studies have shown negative association between educational level and tobacco use. All of these studies reveal a comparatively high prevalence among auto rickshaw drivers with respect to the prevalence in Indian adults aged 15 years and above which was just 28.6% according to GATS 16-17. [17] It was also noted that the prevalence in present study was very high compared to the adults among general population in Belgaum city where prevalence of ever use was 29.41%. [18]

This comparatively higher prevalence among auto rickshaw drivers can be attributed to various occupational factors coupled with low levels of education, poverty, lack of knowledge about hazards, other socioeconomic factors and many unknown factors.

Smokeless form was the predominant form of tobacco use. Similar findings have been observed in multiple studies done among similar subgroups and consistent with the GATS survey done among adult Indian male. [10, 17, 19-20] This is also particularly true in auto rickshaw drivers as their hands are preoccupied in driving and hence smoking while driving would be cumbersome whereas chewing can be continued even while driving.

Majority (54.69%) of the users were advised to quit tobacco by any health care provider in last one year. There is still a lot of potential to counsel each & every user every time they encounter a health care professional, which will have a deeper impact in reducing the use.

Around 61% of the study participants had tried to quit the use in last one year. In the study done in Nepal, 75.8% of long route bus drivers had tried quitting [21] whereas in the Gwalior study, only 28.47% tried to quit. [10] This difference in quit attempts can be attributed to the difference in various socioeconomic factors, educational level, knowledge regarding hazards and the personality traits of the users as all of these play an important role to quit. Majority of those who attempted a quit could hardly sustain it for few months before resuming the use. This can be attributed to various religious events (like Ramadan, Diwali), strong peer pressure, addiction and physical dependence along with ignorance. Self-motivation was found to be the most common approach (90.75%) by the participants to even attempt quitting. This can be augmented by providing education and raising the level of knowledge, providing emotional and mental support to those willing to quit. A study conducted in Canada concluded that many smokers may be unaware of effective cessation methods and most underestimate their benefit. Further, this lack of knowledge may represent a significant barrier to treatment adoption. [22]

In the present study, around 89% of the participants knew that use of tobacco caused one or the other serious illness. Similar findings were seen in Gwalior study (89%). [10] Knowledge has increased in recent

days owing to mass negative advertisements, scary images and videos of serious health hazards which are continuously displayed in cinema halls, social media, television advertisements and etc.

In this study, around 72% of the participants knew that tobacco in any form caused one or the other cancers and this was around 87% in study done in Belgaum. [18] In general, knowledge regarding cancers has increased owing to mass media advertisements

In the present study, almost all the participants (99.0%) supported the law which prohibits smoking in indoor work places and public places. Whereas only 68% of the participants in the Gwalior study were aware about existence of such law. [10] Despite high level of knowledge about the law, actual implementation is a bigger question.

Limitations and Recommendations

Apart from recall bias, those auto rickshaw drivers plying exclusively during night might have been missed from the study. Based on the study, we recommend that work place tobacco cessation model should be established for this group and tobacco cessation activities should be targeted at younger auto rickshaw drivers to address the early initiators to prevent future addictions & health hazards. There is a dire need for strict implementation of the tobacco control legislations.

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