

Attitudes of Auto-rickshaw Drivers Towards Oral Health Care, Barriers of Dental Service Utilization in Vikarabad, Telangana, India

¹Yadav Kopula, ²Monica Mocherrla, ³Parthasarathi Peddireddy, ⁴Shakeel Anjum, ⁵Irram Hameed, ⁶Manisha Pandit

ABSTRACT

Introduction: Regular home oral care and yearly dental checkup are the best means for saving one's teeth. There are some working classes such as road transport drivers who work tirelessly behind the wheels, commuting to different places without adequate food, rest, and sleep.

Objectives: To assess their oral health knowledge, oral hygiene practices, tobacco habit and the barriers in dental service utilization.

Methods: A cross-sectional study was conducted on the auto-rickshaw drivers at the auto-stands in and around Vikarabad. A pilot study was done, and the sample size was estimated as 200. A 16 item pretested, self-administered questionnaire was used to collect data, and collected data were subjected to statistical analysis using Statistical Package for the Social Sciences (SPSS) version 21.0.

Results: Among 200 male participants, mean age was found to be 32 years. 79.5% knew that tobacco consumption causes cancer. 56.5% had a tobacco-related habit. Of them, 45.1% were not willing to quit. 55.0% did not visit the dental hospital as they did not experience any dental problem.

Conclusion: The present study concluded that though majority of auto-drivers have knowledge that tobacco causes cancer, 45.1% of them were not willing to quit. This necessitates more extensive and effective cessation programmes in them.

Keywords: Barriers to dental service utilization, Oral health knowledge, Oral hygiene practices.

How to cite this article: Kopula Y, Mocherrla M, Peddireddy P, Anjum S, Hameed I, Pandit M. Attitudes of Auto-rickshaw Drivers Towards Oral Health Care, Barriers of Dental Service Utilization in Vikarabad, Telangana, India. *J Oral Health Comm Dent* 2018;12(3):79-84.

Source of support: Nil

Conflict of interest: None

INTRODUCTION

Since the dawn of times, Adam attempted to taste the first fruit; tooth has played a primary role which has special importance of its own.¹ Regular home oral care

and a yearly dental checkup are the best means for saving one's teeth, but it appears that in spite of information on adequate dental care provided by the dental professional and the mass media, people fail to take these precautions.²

India is one of the largest democracies in the world, with a population of over one billion. It is a rapidly developing nation and is making great progress in IT, finance and living standard. In spite of these, it is hard to understand that very few people believe in regular dental care.³ The dental health of the general population in developed countries has improved over the past few decades, but people from developing countries continue to have a high level of dental disease. Evidence shows the suboptimal utilization of dental services has been repeatedly reported for the population from developing countries. However, socioeconomic differences in the utilization of dental services still exist in many countries.⁴

The oral health of an individual depends upon awareness and attitude.⁵ Attitudes reflect individual experiences, familial beliefs, cultural perceptions and other life situations and these have a strong influence on oral health behavior.⁶ Many oral diseases can be prevented if proper education or awareness is provided. Knowledge about oral health is considered to be an important requirement for health-related practices.⁷ Those who have assimilated the knowledge and feel a sense of personal control over their oral health are more likely to adopt self-care practices.

Work is a central element of an individual's life and is the main reference for determining patterns of identity and sociability, political activities, family life, access to economic resources and opportunities for achieving good health and well-being.⁷ The challenges of occupational environment are one of the major social determinants of health.⁸ There are some working classes such as road transport drivers who work tirelessly behind the wheels, commuting to different places without adequate food, rest and sleep.¹ These people work in unfavorable climatic conditions compounded by delays and breakdown. Due to the hectic schedule, they commonly use tobacco as smoking and chewing form to relieve stress and to keep them alert during travel.⁹

In addition, only a few studies exploring the prevalence of oral diseases have been conducted among the Indian population, especially among people employed

^{1,2,5}Reader, ³Professor and Head, ⁴Professor, ⁶Postgraduate Student

¹⁻⁶Department of Public Health Dentistry, Sri Sai College of Dental Surgery, Hyderabad, Telangana, India

Corresponding Author: Manisha Pandit, Postgraduate Student, Department of Public Health Dentistry, Sri Sai College of Dental Surgery, Hyderabad, Telangana, India, e-mail: pandit0519@gmail.com

in specific occupational groups like that of Omoigberai et al. which showed their poor pattern of dental visits.³ Soni et al. which concluded that the knowledge of the study participant was poor.

As these people are usually from a low class; they are economically weak; less educated, they experience a lot of stress. To overcome these stresses they use various forms of psychoactive substances like smokeless and smoking forms of tobacco along with alcohol, and sometimes go to work even without doing their daily oral hygiene practices. As a result, it may lead to their compromised oral health causing increased risk to dental caries and gingival diseases.

Till date, there is no literature available worldwide and in India concerning about the oral health behavior, barriers of dental service utilization among population employed in the specific occupational group. Little literature is available on occupational groups like bus drivers, conductors, coal mine factory workers, stone mine workers, green marble mine, etc, but none on autorickshaw drivers. Therefore this study was undertaken to know the knowledge, attitude regarding oral health care and practices, their tobacco habits and the barriers they face in the dental service utilization.

METHODOLOGY

A cross-sectional study was conducted for 3 months from 1st January to 1st April 2017, on auto-rickshaw drivers. The ethical clearance was taken from Institutional Review Board of Sri Sai College of Dental Surgery, Vikarabad, Telangana, India. Subjects who were willing to participate and who pass by Sri Sai College of Dental Surgery at least once in 8 to 10 days were included in the study whereas subjects who were not willing to participate in the study were excluded from the study. The questionnaire used was in local language, Telugu. A pilot study was undertaken on 30 persons to pretest the questionnaire, to determine the feasibility of the study and assess the sample size.

The questionnaire developed consisted of three parts. First part was related to oral health knowledge including oral hygiene practices and their tobacco-related habits. Second part dealt with barriers in dental service utilisation. A simple random sampling technique was used to select the participants for the study.

For the collection of data, a prior appointment was fixed with the union head of the auto-rickshaw drivers. Complete information, the methods and the purpose of the study being conducted, was explained to them. After the consent, of the union head of the auto-rickshaw, was given, the auto drivers who were available were called up and explained the same. The place, date and time was

then decided by the union head, according to the feasibility of the auto drivers, which was preferably the auto stand at different areas of Vikarabad where all the auto drivers gathered. The investigator distributed questionnaire to all the participants present at the auto stands and ample time was given for filling the questionnaire. While filling the questionnaire by the participants, investigator waited at the auto-stands itself, to collect the questionnaire on the same day. Majority of the people were able to read Telugu, so they answered on their own. For some, for whom the words were not clear, doubts regarding the questions were clarified at the same point. After collection of the questionnaire, small health education was given to all the auto drivers regarding oral hygiene habits, diet and hazardous effects of tobacco. The same procedure was repeated on the appointed dates of data collection.

The data collected was compiled and was checked for completeness. The findings obtained were coded and were entered into Microsoft Excel (2010). The analysis was done using Statistical Package for Social Sciences (SPSS 21.0 version). Chi-square test was used to find the association of oral health-related knowledge, attitude, and practices. Continuous data were presented as percentages and mean. The significant value was set at $p < 0.05$.

RESULTS

The present study was conducted among auto-rickshaw drivers at the auto stands of Vikarabad to assess their oral health knowledge including oral hygiene practices, tobacco-related habit, barriers in dental service utilization. A total of 200 male participants was included in the study. The subjects age group ranged from 20 to 60 years (Table 1). The mean age was found to be 32.41 years. 30% (60) of the subjects were in the age group of 31 to 40 years. Socio-economic status as determined by Kuppuswamy's scale showed 68% (136) of them belonged to a lower middle class, 17% (34) belonged to lower class, and 14% (28) of them were of middle-class status (Table 1).

When oral health was assessed among 200 auto rickshaw drivers, the majority of the subjects 89.5% (179) believed that regular visit to dentist keeps teeth in a healthy state. About 60.5% (121) felt that despite regular cleaning of teeth dental caries could not be prevented. Another finding in this study was that 79.5% (159) subjects knew that consumption of tobacco causes cancer, whereas 18.5% of the subjects agreed that tobacco consumption did not cause cancer and 2% of them did not know tobacco habit and oral cancer (Table 2).

Overall, 76% (152) subjects cleaned their teeth with toothbrush and toothpaste, followed by neem stick 13% (26), coal 9% (18) and finger in 2% (4). Out of those who used a toothbrush, 75% used to brush once a day and

Table 1: Sociodemographic details

Variable	Options	No. of subjects	Percentages (%)
Age	15–20	11	5.5
	21–25	45	22.5
	26–30	46	23.0
	31–40	60	30.0
	41–50	27	13.5
	> 50	11	5.5
Education	Illiterate	40	20.0
	Can read only	1	0.5
	Primary school	21	10.5
	Middle school	106	53.0
	High school	23	11.5
	Graduate	9	4.5
Income	Upper middle class	2	1.0
	Middle class	28	14.0
	Lower middle class	136	68.0
	Lower class	34	17.0

Table 2: Oral health knowledge questions

Variable	Options	No. of subjects	Percentages (%)
A regular visit to the dentist keeps teeth healthy	Agree	179	89.5
	Disagree	16	8.0
	Don't know	5	2.5
Daily brushing do not prevent caries	Agree	121	60.5
	Disagree	75	37.5
	Don't know	4	2.0
Consumption of tobacco does not cause cancer	Agree	37	18.5
	Disagree	159	79.5
	Don't know	4	2.0

Table 3: Oral hygiene practice questions

Variable	Options	No. of subjects	Percentages (%)
Aid of cleaning	Toothbrush toothpaste	152	76.0
	Neem stick	26	13.0
	Coal	18	9.0
	Finger	4	2.0
Frequency of brushing	Once daily	150	75.0
	Twice daily	50	25.0
Interval of change of toothbrush	3–6 months	123	80.9
	7–12 months	20	13.1
	> 1 year	9	5.9

25% (50) brush twice daily (Table 3). Nearly 56.5% (113) had a tobacco-related habit, whereas 43.5% (87) did not have any tobacco-related habit in any form, 54.8% (62) of the subjects had quit their habit; self-interest is the most common reason (45.1%) for quitting followed by 22.5% (14) due to pressure from family whereas 45.1% (51) were not willing to quit the habit (Table 4).

Of the respondents, 45% (90) subjects have visited the dental hospital, whereas 55% (110) have never visited a dental hospital. The most common reason cited for the visit was the pain (46.6%), next was bleeding gums

(31.1%), prosthesis (10.0%), and swelling (12.2%). 55% (110) subjects did not visit the dental hospital, as they did not experience any dental problem (52.7%) (Table 5).

DISCUSSION

Although dental decay has been significantly reduced over the past 30 years, the dental disease continues to be a substantial health problem for many low-income countries^{9,10} and developing countries. Several studies examining dental care utilization have been conducted focussing on children and older people. There is little

Table 4: Tobacco-related habit

Variable	Options	No. of subjects	Percentages (%)
Do you have a tobacco-related habit	Yes	113	56.5
	No	87	43.5
Did you quit habit anytime	Yes	62	54.8
	No	51	45.1
Reason for quitting the tobacco habit	Self-interest	28	45.1
	Pressure from family	14	22.5
	Pressure from friends	11	17.7
	Awareness	9	14.5

Table 5: Hygiene practice questionss

Variable	Options	No. of subjects	Percentages (%)
Aid of cleaning	Toothbrush toothpaste	152	76.0
	Neem stick	26	13.0
	Coal	18	9.0
	Finger	4	2.0
Frequency of brushing	Once daily	150	75.0
	Twice daily	50	25.0
Interval of change of toothbrush	3–6 months	123	80.9
	7–12 months	20	13.1
	> 1 yr	9	5.9

information about these occupational group. The main intention of the study was to assess the oral health-related knowledge, practices, tobacco-related habits, barriers in dental service utilization of auto-rickshaw drivers that would aid in the planning and evaluation of oral health promotion programs.¹¹ It is evident that there exists a strong association between the socioeconomic status of individuals and the dental service utilization.¹ This situation is evident because individuals earning less are less likely to afford and gain access to a good quality of health services. This was similar to a study conducted by Manski et al. where income was significantly associated with the dental visit of the respondents.¹⁰

The present study reveals that awareness on oral cancer (79.5%) was better compared to previous studies. Raja Pandian et al. who conducted similar study on drivers reported that 62.5% participants were aware of oral cancer. The result of the present study was in contrast with the study conducted by Soni et al. conducted on bus drivers and conductors in Jaipur where 92.8% of the participant had awareness regarding tobacco causing cancer. Increase in awareness of oral cancer might be due to increasing anti-tobacco programmes and publicity and pictorial warnings about the ill effects of tobacco products.

Total of 56.5% of the participant had the tobacco-related habit. Out of which 45.1% were not willing to quit the habit. 54.8% of the participant had quit their tobacco-related habit, the most common reason being self-interest (45.1%), followed by pressure from family (22.5%) and friends (14.5%). The finding of the present study was

similar to a study conducted by Haddad et al. among university students in Jordan which also showed 50.8% of tobacco-related habit among students. The finding of the present study was also in contrast to a study conducted by Gambhir et al.¹² on public transport workers in Chandigarh where only 20% of the participants had a tobacco-related habit. There is an urgent need to promote multidisciplinary health education activities at different age groups to prevent young age students from smoking and to help smokers to quit.

Regarding oral hygiene practices, 76% of the participants cleaned their teeth with toothbrush and toothpaste. In a similar study in India, conducted by Gambhir et al. 85.7% of transport workers used toothbrush and toothpaste for cleaning their teeth. The result of the present study was entirely in contrast to a study conducted by Solanki et al. conducted on stone mine workers in Jodhpur, where none of the participants used toothbrush and toothpaste as the cleaning aid. The high use of toothbrush and toothpaste may be attributed to increased availability and affordability of cleaning aids.⁵

Furthermore, the present study reveals that the frequency of tooth brushing was found to be once daily in 75% of the subjects and 25% of the subjects brushed twice daily. This finding was similar to the study conducted by Gambhir et al. who conducted a study on public transport workers. The findings of the present study were in contrast to the study conducted by Neeraja et al.¹³ on dental students where 74% of them brushed twice daily showing a vast difference between

dental professional and common people. Moreover, the constant mobility of these categories of individuals may affect their compliance with regular oral hygiene practices. The participants in this study were males, and men are known to have poorer oral health knowledge, negative attitude to oral health, suboptimal oral hygiene practices and attach less importance to oral and general health as shown by studies conducted by Al-Ansari et al. on health science college students, Peter et al. on Turkish dental students.

Forty-five percent of the subjects visited the dentist because of pain (46.6%), followed by bleeding gum (31.11%), swelling (12.2%). This was similar to a study conducted by Bommireddy et al. on rural adults in Southern India.⁸ Another contrast finding was found in a study conducted by Gill et al.¹⁴ where only 32% had visited the dental hospital. As pain is considered an emergency condition, it might have forced them to visit a dentist and may be indicative of a negative attitude and less importance attached to oral health by participants. Dental pain adversely affects the quality of life, normal functioning, and daily living of people and dental visits are aimed at immediate relief of pain. Patients often present themselves for dental care at the later stages of the dental disease, and when overt symptoms appear such as pain and extreme discomfort, that is a problem-oriented visit rather than prevention oriented one.¹¹ In the present study, none of them said they had visited the dentist for a routine oral examination. This result was similar to a study conducted by Devaraj et al. in the outpatient department in Jaipur.¹¹ Though the most dentist recommends 6-monthly visits, only a few individuals comply with this recommendation. This shows that people do not believe in the value of the regular dental visit, and they have poor preventive practices.

This study has focussed on a particular group of people that are the auto rickshaw drivers. Very little focus has been given on this group in the literature. 55% of the participants did not visit the dental hospital. The most frequently cited reason was no experience of a dental problem (52.7%) that can initiate a dental visit followed by fear (15.4%) and lack of time (10%). This was similar to a study conducted by Fotedar et al., in Shimla, India on general population which showed that 62.5% of participants did not visit the dental hospital.³ The finding of this study was similar to a study conducted by Nagarjuna et al., among patients visiting community health centers, in Nellore district, Andhra Pradesh where 51.0% did not report to a dentist just because they do not consider dental diseases as serious. This study suggests that they are not aware of the about the maintenance of good oral health and regular visit to the dentist. So, there

is a need for increasing awareness and encouraging more positive attitudes towards oral health. Dental diseases are generally not self-limiting. If untreated, dental conditions may affect the person's well being and overall quality of life. In the present study, the lack of time was also one of the reasons for not visiting dental hospital which was similar to a study conducted by Fotedar et al., in Shimla. In our study, fear (3.0%) was reported to be one of the reasons for not visiting a dental hospital. This was similar to a study conducted by Bommireddy et al. (3.5%) on the general population. These results were in contrast with a study conducted by Kakatkar et al. conducted on the general population, Udaipur and Tong et al. conducted on undergraduate students, Honk Kong where fear was the major reason for not utilizing the dental services. Though this study has focussed on a particular group, the reason presented by them for not visiting a dental hospital is no way different than other population. Whether be it patients in a hospital or general population or to any other occupational group the reason remains the same. They do form a part of the society representing the perception of the people about the unimportance given to oral health. The present study presented with some limitations. Firstly, it was a questionnaire-based study where the answers were self-reported. This might lead to bias as people do not open up when answering questions regarding tobacco-related habit. Secondly, there was no clinical examination done which might have strengthened the finding of our study. Hence, further studies should be undertaken with intervention to help them quit the tobacco-related habit.

CONCLUSION

The result of this study concludes that though a majority of the subjects were aware of oral cancer and their reasons, they were not willing to quit their tobacco habit. The data also suggest that health professionals should continue emphasizing the negative health consequences of smoking to motivate cessation attempts. Our finding suggests that a major portion of the auto-drivers had not visited the dentist for regular dental check up. Thus, it becomes important to conduct sustained awareness programs about good oral health and motivate them to use the services available at the dental college in an economical way.

REFERENCES

1. John JR, Kesavan P, Sridharan P, Rajendran G, Evaluation of oral health status among road transport drivers in Erode district of Tamil Nadu, *J Oral Health Comm Dent* 2016;10(2):35-39
2. Syrjala A-MH, Knuuttila MLE, Syrjala LK, Reasons for preventing regular dental care, *Comm Dent Oral Epidemiol* 1992; 20(2):10-14.

3. Fotedar S, Sharma K R, Bhardwaj V, Sogi GM. Barriers to the utilisation of dental services in Shimla, India, *European Journal of General Dentistry* 2013;2(2):39-43.
4. Warren JJ, Weber Gasparoni K, Marshall TA, Drake DR, Dehkorki Vakil F, Dawson DV et al. A longitudinal study of dental caries risk among very young low SES children. *Comm Dent Oral Epidemiol* 2009;37:116-122.
5. Braimoh BB, Ilochnwu NA, Egbor PE, Oral health practices and status of public transport in Choba, River State, Nigeria, *Journal of Science* 2015;5(7):555-559.
6. Hamilton ME, Coulby WM. Oral health knowledge and habits of senior elementary school students. *J Pub Health Dent.* 1991;51:212-219.
7. Vara S, Bhavya K, Dwarapureddi , Bhavannarayana C. Occupational Health Effects of Self Employed Personnel with Reference to Auto Drivers and Photocopy Workers, *Nat Env and Pollution Tech* 2016;15(1):35-42.
8. Wilkinson RG, Marmot MG. Social determinants of health: the solid facts. World Health Organization 2003.
9. Braimoh BB, Ilochnwu NA, Egbor PE. Oral health practices and status of public transport in Choba, River State, Nigeria, *Journal of Science* 2015;5(7):555-559.
10. Manski RJ. Demographic and socioeconomic predictors of dental care utilisation. *JADA* 1998;129:195-200.
11. Soni A, Singh V, Savi RG, Yadav O et al. Oral health related knowledge, attitude and practise among bus conductors and drivers in Jaipur district. *Int J Dent Med Res* 2014;1(4):25-29.
12. Gambhir RS, Sohi RK, Singh GR, Brar R, Singh H, Kakar H. Oral hygiene practices and dentition status of public transport workers of India–A cross-sectional study. *J Clin Diag Res*, 2014;9:33-36.
13. Neeraja R, Kayalvizhi G, Sangeetha P. Oral health attitudes and behaviour among a group of dental students in Bangalore, India *Eur J Dent* 2011;5:163-167.
14. Gill M, Pal K, Gambhir RS. Oral hygiene practises, attitude, and access barriers to oral health among patients visiting a rural dental college in North India. *Journal of Dental Research and Review* 2014;1(3):114-117.