



PERSPECTIVES TO RECEIVE ORAL HEALTH INFORMATION IN BUS STANDS AND THEIR KNOWLEDGE, ATTITUDES AND PRACTICES OF PASSENGERS IN RANGAREDDY DISTRICT, TELANGANA STATE, INDIA: A CROSS SECTIONAL SURVEY

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ABSTRACT

Aim: The aim of the study is to know the opinion of the passengers travelling by bus in receiving oral health information in bus stands through various methods, and to know their knowledge, attitude and practice regarding the oral health.

Material and Methods: A Cross-sectional study was carried out at ten bus stands of Ranga Reddy district, Telangana State. A 400 passengers were decided to be included as subjects to obtain information by interview method with a pretested questionnaire, for the sake of convenience as sampling was difficult. Descriptive statistics and chi-square test was applied using SPSS version 20.0.

Results: A total of 400 passengers completed the survey. Eighty-five percent of the passengers agreed that bus stands should have oral health related information. Forty percent of the passengers preferred to receive oral hygiene instructions printed behind the ticket followed by posters and through television. Fifty-five percent of passengers preferred that oral health informative posters should be pasted near platforms.

Conclusions: Majority of the passengers preferred to receive oral health information in bus stands. Hence, efforts should be directed by government in spreading the oral health information among public through this mode too.

KEYWORDS: passengers, bus stands, oral health

INTRODUCTION

A well-known and coordinated system of transport plays an important role in the sustained economic growth of a country. The present transport system of India comprises several modes of

transport including rail, road, waterways, air transport, etc. Transportation in India has recorded a substantial growth over the years¹.

India has one of the largest road networks in the world, aggregating to about 33 lakh kilometres at present.

Buses take up over 90% of the public transport in India and serve as an economical and convenient mode for all people in the society. Buses are mainly run by the state transport corporations² with a small portion operated by private partners.

Telangana State Road Transport Corporation (TSRTC) has three zones, 11 regions and 352 bus stations operating in 3,640 routes. Ranga Reddy district alone has 37 bus stands and operating services to different parts of the district³.

Oral health is significantly related to oral health behaviours and their knowledge. Oral health knowledge contributes to good oral health, but unless attitudes and habits are developed and put into practice, little will be gained⁴. Oral diseases are the major public health problem with high prevalence rate and having significant impact on the individual socially.

The present study was conducted to know the opinions of passengers in receiving oral health information at bus stands of Ranga Reddy district.

MATERIAL AND METHODS

A cross-sectional study was

conducted from 1st May to 30th June 2015 at the bus stands of West Ranga Reddy district (i.e. Chevella, Shankarpally, Manneguda, Pargi, Nawabpet, Vikarabad, Mominpet, Dharur, Marpally and Tandur).

A 17-itemed questionnaire was developed which consisted of questions regarding the demographic details, methods of receiving oral health messages (audio message A-V aids or through pamphlets), oral health knowledge, attitudes and practices. A pilot study was conducted on 30 subjects to check the feasibility of the study and also to validate the predesigned proforma. The Cronbach α was 0.81 for the questionnaire. A convenient sampling method was followed to recruit 400 passengers from nine bus stands. Subjects who gave voluntary verbal consent were part of the study. The investigator himself interviewed the passengers with the help of a

questionnaire at respective bus stands. People travelling by bus, present at the bus stands on the day of the survey and willing to participate in the study were included in the study.

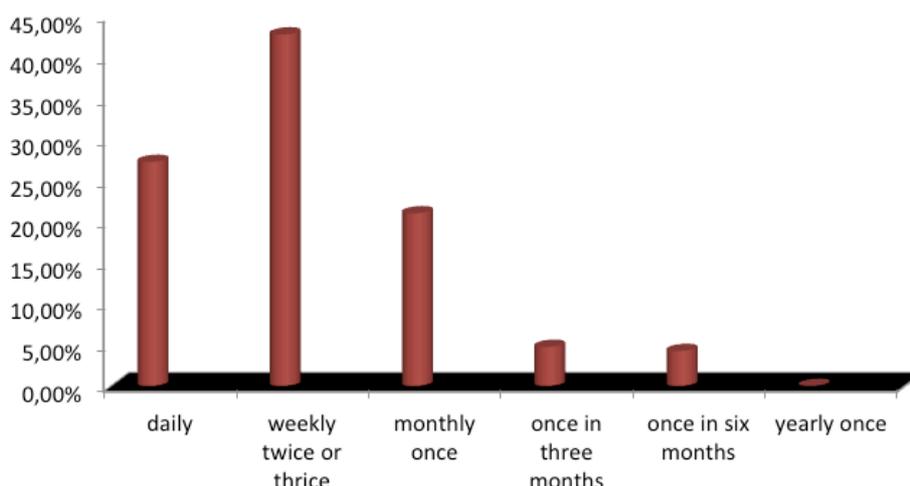
_____Data was compiled and analyzed for completeness. Statistical package for social sciences (SPSS) version 20.0 was used to perform descriptive statistics for percentages. Chi-square test was performed to know the gender wise differences in receiving oral health information in bus stands, with the level of significance set at $p < 0.05$.

RESULTS

Data was collected from the 400 passengers of which 228 (57%) were males and 172 (43%) were females.

Of the 400 passengers, 27.25% (109) travel by bus daily and more than 42.75% of the passengers travel weekly twice or thrice (Figure 1).

Figure 1. Distribution of passengers based on their frequency of travelling by bus.



The table 1 shows the opinions of passengers in receiving oral health messages in different modes in bus stands. About 340 (85%) subjects agreed to the statement that bus stands should have oral health informative posters.

There exists a gender-wise difference in receiving oral health information in bus stands through different modes. Majority of females opined that bus stands should have oral health information, when compared to males.

The figure 2 shows that, 39% (156) passengers liked to receive oral health information printed at the backside of a ticket.

About 56.5% of the passengers wanted oral health information to be

displayed on the platforms followed by display inside the bus 125 (31.5%) (Figure 3).

Regarding the passenger's knowledge on oral health 299 (74.75%)

agreed that there is a relation between oral health and general health (Table 2).

A majority of the passengers i.e., 36.5% did not take care of their oral health as they take care of their general

health. Majority (61%) of them visited a dentist only when they suffered from dental pain, 39.63% answered that the reason for not visiting a dentist was due to expensive treatments (Table 3).

Table 1. Opinion of passengers regarding receiving oral health information in bus stands.

Question	Strongly Agree	Agree	Disagree	Strongly disagree	P value
Do you think bus stands should have oral health information posters?	36%	49%	11.5%	3.5%	0.002*
Pre- recorded messages on oral health if played before/ after the announcement of bus timings is helpful in spreading awareness on oral health?	32.25%	41.5%	21.75%	4.5%	0.004*
TV screens displaying bus timings/advertisements should have messages on oral health too?	18.25%	48.25%	20%	13.5%	0.004*

Figure 2. Distribution of passengers based on their preferences to receive oral health message.

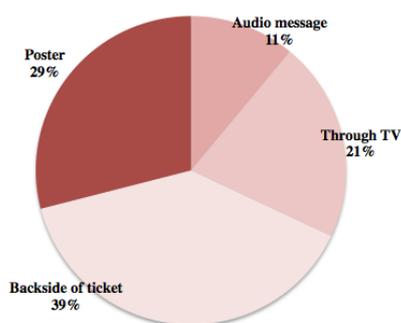


Figure 3. Displaying of posters at different places.

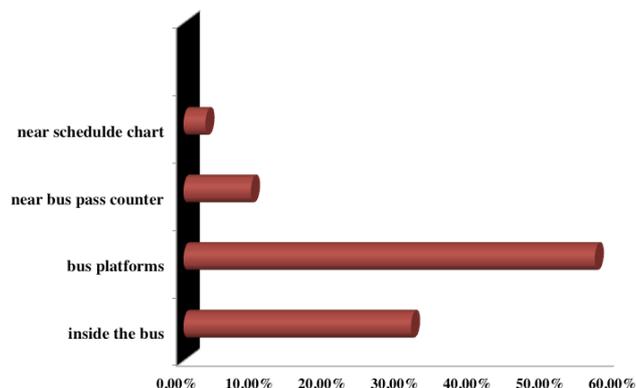


Table 2. Distribution of passengers based on their knowledge regarding oral health.

Question	Strongly agree	Agree	Disagree	Strongly disagree
Is there any relation between oral health and general health?	34%	40.75%	23.5%	4.25%
Does excess sweets intake results in dental caries?	35.5%	36%	16.25%	17.75%
Will regular brushing can protect oneself from gum bleeding and dental caries?	26.5%	45%	15.5%	13%

Of the 400 subjects 247 used toothbrush as their brushing aid. Majority of the passengers i.e., 55.5% brushed their teeth once a day. Most of them (47.75%) used toothbrush and toothpaste as their brushing aid. 57.8% changed their brush for every 3 to 6 months. About 14% of the subjects used toothbrush with tooth powder for brushing. Even after the increased

commercial on usage of toothpaste and toothbrush, 26.75% of the subjects still use Neem stick (Azadirachta Indica) as their oral hygiene aid.

DISCUSSION

As it is said “an ounce of prevention is worth a pound of cure”. This is possible only through increased

awareness and undivided attention among people, which will help to achieve better oral health. Preventive measures and creating awareness are inexpensive when compared with the expensive approaches of treating dental disease.

In the present study 49% of the passengers were willing to receive the oral health information through

various means in bus stands, which is similar to the study done at railway platforms by Reddy et al.⁵. A majority of the passengers preferred to receive oral health messages printed on the

backside of the ticket followed by posters and through television which is similar to the study conducted by Reddy et al.⁵. Because the ticket is carried along with them and can be

read during the leisure time, hence most of the passengers opted for oral health information printed on the backside of the ticket.

Table 3. Attitudes of passengers regarding oral health.

Do you take care of oral health as any other part of your body		
Yes	254	63.5%
No	146	36.5%
Whom do you consult for dental problem		
See a dentist	112	28%
Go to Pharmacist	168	42%
See a general practitioner	120	30%
Get others opinions	0	0%
Have you been to a dentist		
Yes	178	44.5%
No	222	55.5%
Reasons for visiting dentist		
Dental Pain	110	61.79%
Routine dental check-up	49	27.5%
Gum bleeding	12	6.7%
Food lodgement	07	3.9%
Reasons for not visiting dentist		
Afraid of the dental treatment	34	15.31%
Treatment cost is high	88	39.63%
No pain to go to dentist	37	16.66%
No dental clinic nearby	29	13.06%
No time	34	15.31%

About 31.8% of the passengers preferred to receive oral health messages through A-V aids i.e., through pre-recorded messages before or after the announcement of arrival of buses, this results are in similar to the study conducted by Reddy et al.⁵ where the commuters in railway stations preferred to receive oral health messages in pre-recorded form. As the study is conducted in the rural backdrop, majority of the passengers are illiterates. So they can easily understand pre-recorded messages and also will be effective.

Majority of the passengers want the oral health informative posters to be displayed on platforms. This may be due to the reason that they

can read the oral health informative posters when they are waiting for the bus. In a study conducted by Zhu et al.⁶, majority of the adults received oral health information from the radio, TV and posters in the hospitals.

Even though majority agreed that there is a relation between oral health and general health, it is not given that importance because of unawareness/negligence. This was in contrast to results of Singh et al.⁷, where the rural people had lower knowledge on oral health. Majority of the passengers had never been to a dentist. This present study finding is similar to the study done by the Zhu et al.⁶, among Chinese adults where majority of the subjects have never

been to a dentist.

About 61.79% subjects visited dentist only if they had pain. This is similar to the study conducted by Misrachi et al.⁸ and Zhu et al.⁶ where the toothache was the most common reason for visiting the dentist. Majority agreed that the reason for not visiting is due to high treatment cost, which is in contrast to the study results of Yadav et al.⁹, where lack of services and no dental problem to visit, was the major reason quoted for not visiting a dentist.

Growing evidence of oral health promotion and preventive health approaches are effective in improving overall health and wellbeing and reducing the disease burden and

disability. Oral health information in local language through this means may be useful and effective in rural areas. Further studies should be conducted to know the effectiveness and feasibility of spreading oral health information by this means.

The limitations of the present study are, depth of intensity of the questions asked by the investigator may not be properly received by the passenger. As it was a structured questionnaire probing the questions beyond the response of the subjects was not possible. Confining the study to a small area in the other limitation.

CONCLUSIONS

Major portion of the Ranga Reddy district where the study is done is rural; the subjects' majority were from the same area suggesting that minimum number of dental services available to them in PHC's. Dissemination of oral health knowledge by the health personnel is to vary poor/negligible in health administration has to think over various ways to make people aware about the health in particular of this population. Few suggestions to conclude from my study results are, majority of the passengers preferred to receive oral health information in bus stands. Hence efforts can be directed in spreading oral health information among public through this mode.

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