



RESEARCH ARTICLE

KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) OF ORAL HYGIENE IN THE CONSTRUCTION INDUSTRY OF SRIPERUMBUDUR REGION, TAMIL NADU – A KAP QUESTIONNAIRE STUDY

*Priyanka Mariam George and Jaiganesh Ramamurthy

Saveetha Dental College, Chennai, India

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ABSTRACT

Aims & Objectives: To assess and compare the oral health attitude, knowledge and practices of engineering professionals versus the site workers in Sriperumbudur region of Chennai, Tamilnadu, India. This study was aimed in order to conduct industry based community-oriented oral health promotion programs with the results obtained

Materials and Methodology: Study group comprised of a total of 316 employees of the Construction industry from various Construction sites from Sriperumbudur region. The study population is classified into two groups, first group consisting of 121, were the professionals including Engineers and the second group of 195, consisted of site workers of various trades.

They were assessed using data obtained from a self administered questionnaire. Data was entered into a personal computer and analyzed using the SPSS software version 20.

Results: We understand from the study that even in one particular industry, it has been found that among the two groups: Group A (Engineering Professionals) & Group B (Workers), Group B has low level of oral health awareness and practices as compared to Group A. Statistical analysis was done and the results obtained showed a statistical significance

Conclusion: Oral diseases & problems needs to be considered among the major public health problems owing to their high prevalence and incidence, For which oral health knowledge is to be considered as an important prerequisite for healthy oral practices.

Special training needs to be organized in order to train and change certain misconceptions and to imbibe healthy oral practices.

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INTRODUCTION

Oral health is an important factor for our overall well being. Dental plaque and calculus are the major factors that are responsible for the transition from a healthy to an unhealthy oral cavity. Dental plaque is defined as a structured, resilient, yellowish grey substance that adheres tenaciously to the intra oral hard surfaces, including removable and fixed restorations (Carranza). Calculus is formed by the mineralization of plaque. Common microbes found in association with the dental plaque are the Streptococcus species, Actinomyces species, Capnocytophaga, Fusobacterium etc. Dental plaque can give rise to problems such as caries and gingivitis which later progresses to periodontitis due to the change in the bacterial flora to gram negative organisms. The build up and progression of the dental plaque is the cause of oral diseases, hence it is important to disrupt it daily, which is attained by correct tooth brushing and the use of interdental brushes, floss etc. The Construction industry consists of almost 16 per cent of the nation's working population.

The Indian construction industry employs a large variety of people with varied skill sets and different classes of people consisting of the Engineers, skilled workers to the unskilled migrant labourers. Little is known about the oral health attitudes and behaviour of the members of the Indian construction Industry. The survey was conducted to assess their knowledge, attitude and practices of oral hygiene.

MATERIALS AND METHODS

This study was conducted to assess the Knowledge, Attitude and Practices (KAP) among 21 to 35 year old personnel's from the Indian Construction Industry working in various sites in the Sriperumbudur Region of Chennai. A total of 316 employees/workers consisting of Males as well as Females between the age group of 21 to 35 were selected for the study with the intention that the baseline data collected can be used for conducting free oral health programmes/camps, which is generally conducted as part of the medical camp once every year. Data was collected by means of self-administered questionnaires.

The questions asked to assess the knowledge; attitude and practices were the following

How often do you brush your teeth?	What type of brush do you use?	What technique (direction) do you use to brush?	How often do you change your brush?	Have you heard of inter-dental cleaning devices?	If yes, what do you use?	Do you clean your tongue?	If yes, how do you clean	Have you noticed bleeding from your gums?	Have you noticed foul odour from your mouth?	Have you visited a dentist for any problem?	If yes , what was the problem encountered	How often do you visit the dentist for checkup	Are you aware of diseases like gingivitis, periodontitis?	Are you aware of the fact that gum diseases are linked with diseases like Diabetes and Cardiovascular diseases
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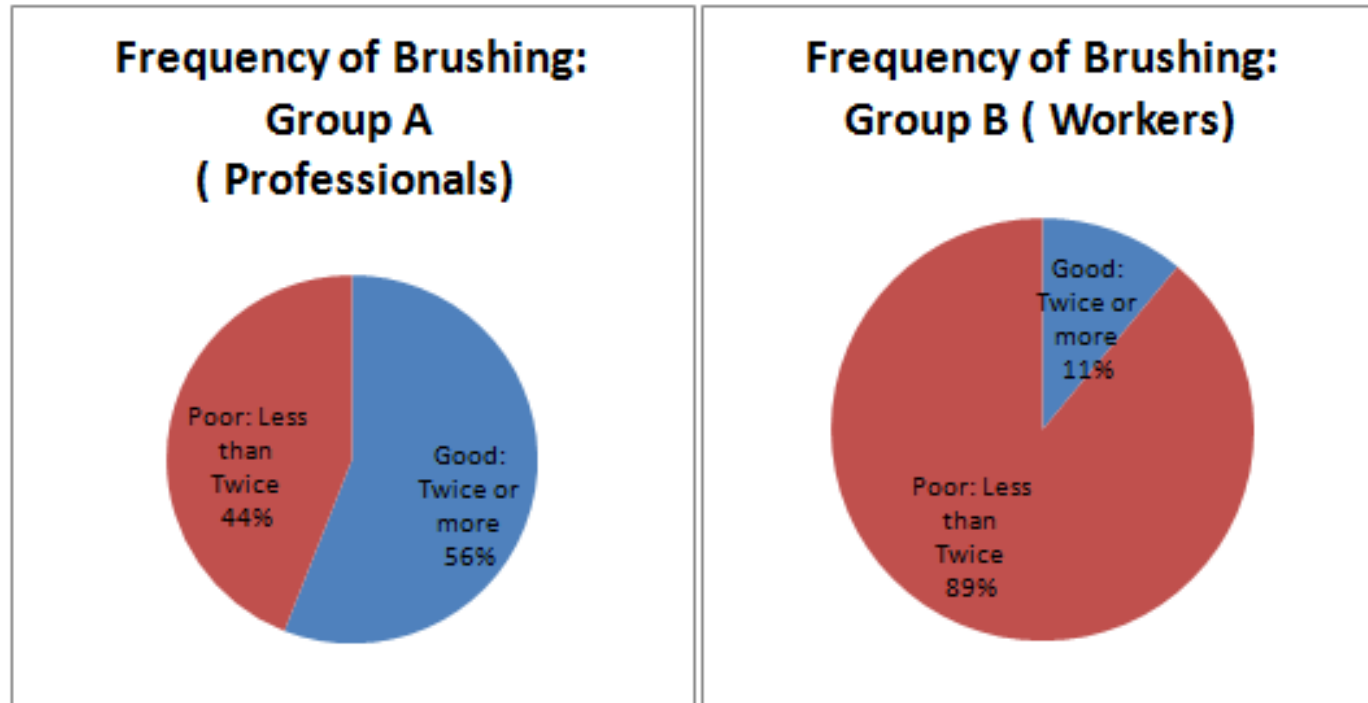


Fig.1. Pie diagram showing the frequency of brushing among engineers and site workers

Table 3.

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Worker	Equal variances assumed	6.619	.011	3.605	119	.000	1.58166	.43872	.71295	2.45036
	Equal variances not assumed			5.534	48.482	.000	1.58166	.28579	1.00718	2.15613

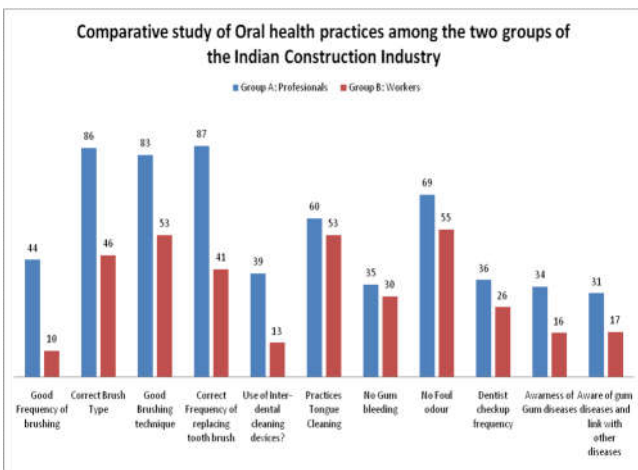


Fig. 2. Bar chart depicting the oral health awareness, practices and attitudes among the 2 groups

The questions were in the local language Tamil/Hindi as well as in English. Steps were taken to ensure that there was reliability while the language was translated into the local language. The questionnaire also included details such as demographic data, perceived dental health status, oral health KAP, behaviour (practice) toward dental problems and past dental experience, dietary history, and adverse oral habits.

Statistical Analysis: Collected data were analysed using SPSS version 20. The statistical significance was determined by T test, and the level of significance was set at $P < 0.05$.

RESULTS

Group A consisting of Professionals: 86/121 were male 35/121 were female.

Group B consisting of workers: 155/195 was male 40/195 were female.

Frequency of Brushing

Considering brushing two times a day as ideal condition the survey was conducted to check on the frequency of brushing among the two groups. It was found that in Group A consisting of professionals the percentage of those who brushed more than once a day was 43.8%, while in the Group B consisting of workers the percentage was as low as 9.7% only. It was found that majority of Group A were aware of the benefits of brushing more than once a day, while the awareness levels were found to be low in Group B.

Type of Brush Used

When enquired regarding the type of brush preferred- Soft, Medium or the tooth brush abrasion causing hard type. It was found that in Group A consisting of professionals the percentage of those who preferred the hard type was only 14%, while in the Group B consisting of workers the percentage was as high as 85.95%. It can be noted how the majority of Group B was of an opinion that the hard bristle brushes clean better.

Technique of Brushing

From the survey it was found that almost 83.47% of the Group A consisting of professionals brushed using the circular motion and combination of circular & vertical movements.

While only 53% of the Group B consisting of workers used the correct acceptable techniques of brushing.

Frequency of replacing Tooth Brush

The respondents were surveyed to understand the frequency by which they replaced their tooth brush. It was found that 86.77% of Group A consisting of professionals changed their brush within a period of 3 months or between 3 to 6 months. However the results of Group B showed that the majority consisting of 59.48% changed their brush only once in a year or when it cannot be used further.

Usage of Interdental cleaning devices

The usage of interdental cleaning devices like dental floss, air floss, and interdental brush was found to be relatively low with this sample size of both the groups. Only 38.84% of Group A consisting of professionals were aware and practised interdental cleaning, while percentage of Group B consisting of workers was only 12.82%. It was found that toothpicks were most widely used for interdental cleaning occasionally.

Cleaning of the tongue

Majority of the respondents of both the groups resorted to cleaning of tongue. Metal scrapers, rubber scrapers, back of the brush were used. 59.5% of Group A & 53.33% of Group B regularly made it a point to clean the tongue as part of their regular brushing.

Gingival Bleeding

It was found that majority of the respondents had noticed gingival bleeding in the recent past. 65.29% of Group A consisting of professionals and 69.74% of Group B consisting of workers had noticed bleeding. This is an indicator that the gingival health is overall poor among the majority of both categories.

Foul odour

The respondents were asked if they had noticed foul odour from their mouth for which only 31.4% of Group A & 36.92% of Group B admitted of noticing foul odour and bad breath.

Frequency of Visiting a Dentist

The questionnaire also enquired on how frequently the respondent visited a dentist, it was found that majority of the both the groups A (63.63%) & Group B (73.84%) visited only when a problem arises. Only a very few section of the groups had regular visits to the dentist.

Awareness of gum related problems like Gingivitis/ Periodontitis and its inter-relation with other diseases like Diabetes & Cardiovascular diseases

It was found 66.11% of Group A consisting of professionals and 83.58% of Group B consisting of workers were not aware of the gum specific diseases and its consequences. It can be analysed that the majority of both the categories of people were not aware of gum diseases like gingivitis and periodontitis which leads to delay in diagnosis and treatment, thus aggravating the condition. Only 31.40% of Group A consisting of professional knew there was a correlation between gum diseases and other diseases like Cardiovascular diseases & Diabetes.

While a huge percentage (83.07%) of Group B consisting of workers were not aware of any correlation between oral health and major diseases.

DISCUSSION

This study evaluated the knowledge, attitude and practices of oral hygiene among two sectors of the construction industry, the engineers and the site workers.

Oral hygiene practices: Among the engineers 44% brushed twice or more daily whereas 10% of the site workers brushed twice or more daily, 86% of the engineers used soft or medium brush types and 83% followed the proper brushing technique as reported by the survey conducted 46% and 53% of the workers used medium or soft brush and practiced proper techniques of brushing respectively.

Attitude towards dental care: Both the groups did not show a great difference in the attitude towards dental care. The frequency of visit to a dentist was 36% and 26% respectively.

Awareness about the manifestations of dental problems: 31% of the engineers had an awareness that gingival diseases may have a link with systemic conditions and 34% knew about diseases like gingivitis and periodontitis. From this study, we found that 44% of the engineers brushed twice daily whereas only 10% of the site workers did so. The percentage difference between the engineers and the site workers on regular dental check-up was only 10%. This shows that routine dental checkup hasn't been a common practice. Awareness of gum diseases among the engineers and site workers were 34% and 16% respectively. A study conducted among doctors (Sreenivas Nagarakanti *et al*, J Indian Society of periodontology, 2013) showed that there's a need to educate the medical doctors about oral health. Another study assessing the oral hygiene awareness among college students (Sreenivasan MadhanKumar *et al*, Int J of scientific Research and publications, Vol.2 2015) also showed that there is lacunae in the education on oral hygiene and practices, thereby the lack of awareness on oral health. Study done among law students (Dr.M.P.Santhosh Kumar, 2016) the knowledge among law students regarding oral health care was satisfactory, but there is a need to put it into practice in daily life. A survey conducted among pre-university students

of Mysore showed that, those students who had knowledge and positive attitudes of oral health performed good practices for maintaining their oral health (Veera Reddy *et al*).

Conclusion

There is a wide disparity between the site workers and the engineers as seen from this study. Educating the lower strata on oral health is important so as to bridge the wide disparity present among different strata's of the society. While assessing the general Indian scenario, there definitely is a need to bring about changes in the mindset regarding the oral health awareness and practices of the Indian population irrespective of the strata in which they belong to.

REFERENCES

- Dr.M.P.Santhosh Kumar, 2016, Knowledge,Attitude and Practices towards Oral Health among Law students in Chennai, *Journal of Pharmaceutical Sciences and Research*, vol.8(7),650-653
- Keerthana Balabaskran, Dr. Jai Ganesh Ramamurthy, Sep-Oct.2013, Assessment of Knowledge of Oral hygiene aids among Dentists, *IOSR Journal of Dental and Medical Sciences*, Vol.10, Issue 5(Sep-Oct 2013) 60-64
- Muthulakshmi Ganesh, Jai Ganesh Ramamurthy, January2017, Awareness of Oral Health among lawyers and Law college students-A Questionnaire Study, *International Journal of Current Research and Academic Review*, 5(1):61-67
- Sreenivas Nagarakanti, Venkatarao Epari, Deepthi Athuluru, 2013. Knowledge, Attitude and practice of medical doctors towards periodontal disease, *Journal of Indian Society of Periodontology*, Jan-Feb:17(1):137-139
- Sreenivasan MadhanKumar,Venkatesan Singarampillay, Shanmuganathan Natarajan, May 2012. Oral hygiene awareness among Two Non professional college students in Chennai, India- A pilot study, *International Journal of Scientific and Research Publications*, Volume 2, 1-5.
- Veera Reddy, Dharshana Bennadi, Chava Venkata Konda Reddy, 2014. Oral Health related knowledge, attitude and practice among the pre-university students of Mysore city, *Journal of International Society of Preventive and Community Dentistry*, Sep-Dec:4(3):154-158
