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A Questionnaire Study to Assess Attitudes towards Oral Health of Working and Non Working Women of Belgaum City

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Abstract

Context: Woman’s level of oral health is important for the whole family because of the various responsibilities they perform.

Aims: To determine the attitudes among working and non working women towards oral health

Settings and Design

Cross sectional

400 permanent women residents of Belgaum city

Methods and Material: The present study was conducted on 200 working and 200 non working women aged 25-45yrs. self designed pretested and validated 40 item questionnaire was used to collect data regarding knowledge, attitudes and practices towards oral health

Statistical analysis used:

Unpaired t test

Karl Pearson’s correlation coefficient

Results: More than 90 % of them cleaned their teeth with toothbrush and toothpaste. Among working women 54 % used medicated mouthwash compared to non working women (46%). Though both of them answered most of the questions, certain questions regarding knowledge and attitudes towards oral health were better answered by working women. Among working women more than50 %were of opinion that good general health is related to dental health and regular dental visits are necessary to maintain adequate oral health. A majority (55%) of working women said that one set of dentures will not last for the life time were as 45 % of non working women said that it will stay lifelong.

Conclusions: when comparison was made between the two groups, working women had better knowledge and attitude scores in certain aspects of oral health. It was

shown that women's attitude towards oral health was dependent on their education and socio economic status.

Key-words: Women, Knowledge, Attitudes, Oral Health

Key Messages: Many women defer their own dental care treatment as they have the responsibility of caring for their children and family. Since general health and oral health are related to each other, a woman must adopt strategies that promote both her general and oral health. Such an approach will allow her to maintain her oral health and maximize the quality of her life.

Introduction

Health is a state of complete physical, mental, and social wellbeing and not merely an absence of disease or infirmity.[1] Oral health is fundamental to general health and well being; significantly, it has impacts on quality of life. "Oral health is fundamental to overall health, wellbeing and quality of life. Through oral health, the overall health and well being of a person can be enhanced.[2]

According to American Surgeon General Report (2000), oral health means more than healthy teeth and the absence of diseases; rather it involves the ability of individuals to carry out essential functions such as eating and speaking as well as contributing fully to the society.[3] The consequences of a diseased mouth include pain, infection, and lower level of concentration at work, reduced ability to chew food, poor appearance and loss of teeth.[2]

According to American Dental Association (ADA-2003), pregnant women with poor oral health, face pregnancy gingivitis, benign oral gingival lesions, tooth mobility, tooth erosion, dental caries, and periodontitis in addition to giving birth to underweight babies.[4] An attitude is a relatively enduring organization of beliefs around an object, subject or concept which pre-disposes one to respond in some preferential manner. Attitude is an acquired characteristic of an individual. People demonstrate relatively wide variety of attitudes towards teeth, dental care and dentists. These attitudes naturally reflect their own experiences, cultural perceptions, familial beliefs, and other life situations and they strongly influence the oral health behavior. [5-6] Attitudes are not learnt from text-books, they are acquired by social interaction. Previous studies have shown that mass media, dental professionals and dental literature are the main sources of oral health information.[7]

Woman's level of oral health is important for the whole family because of the various responsibilities they perform. Consequently, it has been observed by researchers (Arkutu, 1995; ADA, 2003; Azubike, 2005) that women are often too busy to keep their oral cavity clean and to give themselves good health care in general. Furthermore they may be discouraged from attaining better treatment due to several reasons like they have to take permission from their partners or bosses, fear straying from their role as care takers by leaving their children, husband, business and homes unattended in order to commit an amount of time to seeking health care. [2, 4, 8-9]

Text

Adeleke (1994) observed that women have developed overtime, attitudes of "no pain", "no problem", as per Slande & Sander (2004) is attributed to their feeling, that the impact of poor oral conditions on well-being is a private experience endured from day to day, yet this silent suffering creates substantial excruciating pain on them. In the context of this study, therefore, attitude is viewed as a feeling, thinking, or emotions that predispose women to respond either positively or negatively towards their oral health care, towards people with poor oral health; and towards poor oral health.[10-11]

Thus the present study was planned with an aim to determine the attitudes among working and non working women towards oral health.

Subjects and Methods:

Material

- The present study being a descriptive cross sectional questionnaire study aimed to assess the attitudes towards oral health among working and non working women residing in Belgaum city, Karnataka.
- The study population consisted of 400 permanent women residents of Belgaum city of age group 25-45 years .
- Belgaum city is situated in north east region of Karnataka state. Belgaum was divided into four zones North, East, West and South.
- Lottery method was done to select the study areas in which Hanuman Nagar, Nehru Nagar, Sadashiv Nagar, and Basava Colony were selected randomly for the study.
- Working woman was defined as woman who works for a living. [23]
- Non working woman was defined as woman not employed for a salary, fees or wages; not producing or generating income .[23]
- A self designed questionnaire in English and Kannada was used to collect the data. The questionnaire was reviewed by experts and ensured content validity. Pilot study was done to determine the test-retest reliability of the survey questions in the present scenario and 20 people completed the survey. The respondents were also asked for feedback on clarity of the questions and whether there were difficulty in answering the question or ambiguity as to what sort of answer was required. The respondents were also asked for feedback on clarity of the questions and the difficulties they faced in answering the same. Modifications were made in the questionnaire based on the results obtained from the pilot study.This study was carried out for a time period of 1 month from 18th January 2014 to 18th February 2014.

Questionnaire

- A 40 item self designed questionnaires was prepared to collect information regarding knowledge, attitude and oral hygiene practices of working and non working women.
- The questionnaire was divided into 3 parts
- The first 6 questions pertained to the socio demographic status of working and non working women.
- The next set of 7questions were related to the oral hygiene practices of working and non working women.
- The last set of 27 questions pertained to the knowledge and attitudes of working and non working women regarding oral health.
- The investigator was trained to collect the data prior to the start of the study.single interviewer distributed the questionnaire to the participants and collected on the same day. It was determined that all correct answers were scored as +1, and wrong answers as 0. All those who answered don't know were also scored as 0. One question from knowledge and attitude set could not be categorized as correct answer and wrong answer hence it was decided to analyze this question separately.

Statistical analysis

- Data was entered in Microsoft excel sheet all scores were calculated, data analysis was done using SPSS for windows 16.0 SPSS Inc. Chicago, IL, USA.

Unpaired t test was used to compare the scores among working and non working women followed by **Karl Pearson's correlation coefficient method** to find correlation between knowledge and attitude among working and non working women

Ethical statement

- Ethical clearance was obtained from the research and ethical committee KLE VK Institute of Dental Sciences. Informed consent was obtained from each participant prior to start of the study.

Results

Details of the socio demographic characteristics of the study participants are summarised in table 1.Oral hygiene practices followed by the participants are described in table 2.Responses of the participants regarding the knowledge and attitude towards oral health are described in table 3. When Karl Pearson correlation was applied to correlate with knowledge and attitude of working women a statistical significant correlation was observed (Table 4).

Table 1: Socio Demographic Characteristics

Distribution of participants according to age	Working	Non working
25-30yrs	104 (52.0%)	53 (26.5%)
31-35yrs	25 (12.5%)	37 (18.5%)
36-40yrs	42 (21.0%)	41 (20.5%)
41-45yrs	29 (14.5%)	69 (34.5%)
Distribution of participants according to socio economic status		
Upper	9 (4.5%)	0 (.0%)
Upper middle	103 (51.5%)	45 (22.5%)
Lower middle	48 (24.0%)	52 (26.0%)
Upper lower	40 (20.0%)	99 (49.5%)
Lower	0 (.0%)	4(2.0%)
Distribution of participants according to education		
Illiterate	2 (1.0%)	3 (1.5%)
Primary school	12 (6.0%)	8(4.0%)
Middle school	16 (8.0%)	6 (3.0%)
High school	14 (7.0%)	41(20.5%)
Intermediate/Post high school	14 (7.0%)	37 (18.5%)
Graduate/ postgraduate	124 (62.0%)	97 (48.5%)
Profession/honours’	18 (9.0%)	8 (4.0%)
Distribution of participants according to occupation		
Unemployed	0 (.0%)	200 (100.0%)
Unskilled	35 (17.5%)	0 (.0%)
Semi-skilled	2 (1.0%)	0 (.0%)
Skilled	5 (2.5%)	0 (.0%)

Clerical, shop owner, farmer	53 (26.5%)	0 (.0%)
Semi-profession	39 (19.5%)	0 (.0%)
Profession	66 (33.0%)	0 (.0%)

Table 2: Oral hygiene practices

Sl No	Questions		Working	Non working
1	How do you clean your teeth?	Tooth brush	198 (99.0%)	198 (99.0%)
		Finger	2 (1.0%)	2 (1.0%)
2	What material do you use to clean your teeth?	Tooth paste	198 (99.0%	199 (99.5%)
		Tooth powder	1(.5%)	1(.5%)
		charcoal	1 (.5%)	0(.0%)
3	How often do you clean your teeth?	Once	74 (37.0%)	68 (34.0%)
		Twice	120 (60.0%)	130 (65.0%)
		After every meal	6 (3.0%)	2 (1.0%)
4	Use of any other oral hygiene aids?	Tooth picks	55(27.5%)	41(20.5%)
		Dental floss	8 (4.0%)	3(1.5%)
		Medicated mouthwash	102(51.0%)	87(43.5%)
		None	35 (17.5%)	69 (34.5%)
5	If you use brush, how often do you change your brush?	1-2months	94 (47.0%)	101(50.5%)
		3-6months	95 (47.5%)	84 (42.0%)
		1year	1 (.5%)	1 (.5%)
		When it is frayed	10 (5.0%)	14 (7.0%)
6	When was your last dental visit?	1-3months	38(19.0%)	40 (20.0%)
		6months	40 (20.0%)	34(17.0%)
		>=1year	107 (53.5%)	93 (46.5%)
		Never visited	15 (7.5%)	33 (16.5%)
7	Frequency of dental visit	3months	16 (8.0%)	16 (8.0%)
		>=6months	30 (15.0%)	17 (8.5%)
		1year	28 (14.0%)	27 (13.5%)
		Only when required	115 (57.5%)	107 (53.5%)
		Not applicable	11 (5.5%)	33 (16.5%)

Table 3: Responses regarding knowledge and attitude towards oral health

Sl No	Questions	Working			Non working		
		True	False	Don't know	True	False	Don't know
1.	Germs are present in every body's mouth	171(85.5%)	27(13.5%)	2 (1.0%)	177(88.5%)	21(10.5%)	2 (1.0%)
2.	One need not go to dentist unless he has a painful tooth	58 (29.0%)	138 (69.0%)	4 (2.0%)	77 (38.5%)	120 (60.0%)	3 (1.5%)
3.	There is no need to take care of milk teeth because they will fall after sometimes	71(35.5%)	121(60.5%)	8(4.0%)	77(38.5%)	122(61.0%)	1(.5%)
4.	Good general health is related to dental health	183(91.5%)	13(6.5%)	4(2.0%)	179(89.5%)	18(9.0%)	3(1.5%)
5.	Regular dental check-ups are necessary	175(87.5%)	24(12.0%)	1(.5%)	176(88.0%)	23(11.5%)	1(.5%)
6.	Natural teeth are better than false teeth	175(87.5%)	20(10.0%)	5(2.5%)	188(94.0%)	11(5.5%)	1(.5%)
7.	Taking care of your teeth is as important as other parts of body like eyes, ears , skin etc	194(97.0%)	5(2.5%)	1(.5%)	196(98.0%)	4(2.0%)	0(.0%)
8.	Decayed teeth will affects people's work or other aspects of their everyday life	186(93.0%)	11(5.5%)	3(1.5%)	183(91.5%)	17(8.5%)	0(.0%)
9.	Bacteria on teeth cause decay	185(92.5%)	10(5.0%)	5(2.5%)	188(94.0%)	9(4.5%)	3(1.5%)
10.	It is natural to loss teeth as age advances	154(77.0%)	43(21.5%)	3(1.5%)	154(77.0%)	45(22.5%)	1(.5%)
11.	Brushing with fluoridated toothpaste regularly prevents decay	127(63.5%)	50(25.0%)	23(11.5%)	121(60.5%)	44(22.0%)	35(17.5%)

12.	Eating sweet things can cause decay	149(74.5%)	49(24.5%)	2(1.0%)	152(76.0%)	45(22.5%)	3(1.5%)
13.	Tobacco is bad for teeth and mouth	189(94.5%)	73.5%	42.0%	192(96.0%)	3(1.5%)	5(2.5%)
14.	Removal of upper teeth affects vision	116(58.0%)	68(34.0%)	16(8.0%)	108(54.0%)	73(36.5%)	19(9.5%)
15.	One set of dentures will last a lifetime	62(31.0%)	116(58.0%)	22(11.0%)	67(33.5%)	95(47.5%)	38(19.0%)
16.	Scaling/removal of tartar loosens the teeth	96(48.0%)	87(43.5%)	17(8.5%)	81(40.5%)	95(47.5%)	2412.0%
17.	Dental procedures are always painful	110(55.0%)	82 (41.0%)	8(4.0%)	96(48.0%)	95(47.5%)	9(4.5%)
18.	Dental treatment cannot be done during pregnancy	115(57.5%)	69(34.5%)	16(8.0%)	111(55.5%)	62(31.0%)	27(13.5%)
19.	Cleaning of teeth is better with a finger than a tooth brush	45(22.5%)	153(76.5%)	2(1%)	21(10.5%)	176 (88.0%)	3(1.5%)
20.	When the gums bleed, better not to brush the teeth	45 (22.5%)	153(76.5%)	2(1.0%)	21(10.5%)	176 (88.0%)	3(1.5%)
21.	Bleeding of gums on brushing is normal	69(34.5%)	123(61.5%)	8(4.0%)	72(36.0%)	118 (59.0%)	10(5.0%)
22.	A sugarless chewing gum along with xylitol after a meal can be a substitute to brushing	67(33.5%)	118(59.0%)	15(7.5%)	62(31.0%)	115 (57.5%)	23(11.5%)
23.	If the tooth is white in color it is healthy.	106(53.0%)	84(42.0%)	10(5.0%)	110(55.0%)	81(40.5%)	9(4.5%)
24.	Oral health problems are punishment from gods	32(16.0%)	163(81.5%)	5(2.5%)	14(7.0%)	181 (90.5%)	5(2.5%)
25	If a choice of RCT/extraction is given to you by the dentist which one you will prefer?						
	RCT	116 (58.0%)	136 (68.0%)				
	Extraction	28 (14.0%)	9 (4.5%)				
	Don’t know	56 (28.0%)	55 (27.5%)				
26	A condition like oral cancer exists	171 (85.5%)	21(10.5%)	8(4.0%)	167(83.5%)	16(8.0%)	17(8.5%)

27	Tobacco, alcohol can lead to oral cancer	194 (97.0%)	3(1.5%)	3(1.5%)	195(97.5%)	3(1.5%)	2(1.0%)

Table 4: Correlation between knowledge and attitude by Karl Pearson correlation coefficient method

Samples	r-value	p-value
Total samples	.418	.000
Working women	.395	.000
Non-working women	.446	.000

Distribution of study participants according to their attitude scores

Majority of the working women 92.5% (185) had good knowledge towards oral health in comparison to non working women 90% (180).Chi square test was applied and result obtained was not statistically significant.

Distribution of study participants according to their attitude scores

Majority of the working women 59.0% (118) had good attitude towards oral health in comparison to non working women 54% (109).whereas 41% (82) of the working and 45.5% (91) non working women have poor attitude towards oral health. The output shows that there is a positive relationship between knowledge and attitude among working as well as non working women.

Comparison of scores among working and non working women using unpaired t test

The t-value for the test is -.168 which is associated with p value .737 (p>.05).It was concluded that there is no difference in knowledge scores between two groups.

Discussion

The state of oral health can offer a lot of clues about ones overall health. Oral health knowledge is considered to be an essential prerequisite for health related behaviour .Oral health education is important not only for educating individuals but also for raising their critical consciousness.[24] A number of oral epidemiological studies have been carried out in India during recent years, however data regarding oral health knowledge, attitudes and practice of working and non working women are lacking.[25]

Dental health is a highly individualized concept and its perception is affected by an individual's culture and socio economic status. It was shown that greater than 50 percent (103) of the working women belonged to upper middle category whereas 49.5(99) percent of non working women are under upper lower category.

Oral diseases are complex in that they involve multiple genes and gene susceptibility factors interacting with behavioural and environmental variables. Because of the interaction of these variables, significant numbers of women are at risk for developing oral diseases. Because women generally live longer than men, women are more likely to experience multiple chronic conditions, multiple medications, cognitive impairments, compromised functional status and physical confinement. Significant number of women live in poverty or are the single head of a family without the ability to pay for dental care. Also, many women defer their own dental care treatment as they have the responsibility of caring for their children and family. Since general health and oral health are related to each other, a woman must adopt strategies that promote both her general and oral health. Such an approach will allow her to maintain her oral health and maximize the quality of her life.[26]

The attitude towards their own teeth, and attitude of dentist who provides dental care, play an important role in determining the oral health condition of a population.

About 99% of the participants cleaned their teeth twice daily with tooth brush and toothpaste,similar results are reported by Peterson et al[2]. In the present study 35.5% brushed once daily, 62.5% twice per day and 2.0% thrice or more per day which shows that the study participants were aware of the necessity for good oral hygiene, and the findings are in agreement with other reports given by Peterson et al and Mumghamba et al.[28-30]

In the present study, it was also shown that 51percent (102) of the working women had used medicated mouthwash as other oral hygiene aid which was well comparable with the results of Mumghamba et al. Among 400 participants 200(50%) of the both working (107-(53.5%) and non working (93-(46.5%) had their past dental visit within one year and they were of opinion that dental visits are necessary only when they are in need. The reason they said was lack of time due their work loads, their role as care taker and finally to seek permission from their partners. Results are similar to the study conducted by Hind Al-Johani.[31]

The data regarding oral health, knowledge, attitude and practice were collected by means of a self administered questionnaire. Among these most of the knowledge and attitude questions regarding oral health were equally answered by both the groups. When total scoring for knowledge and attitude were compared between working and non working women there was no significant difference between either of the groups. This may be due to the inclusion of unskilled with low level of educational qualification in working group and qualified, well educated women in non working group, hence any difference between either of the groups might have nullified by this inclusion. Hence our study failed to prove any significant difference between working and non working women.

In addition, the level of education was a powerful determinant of dental visits and oral hygiene habits, indicating that such health behaviour is regulated by social norms and values, [32-33] similar results were obtained in the present study.

Inequalities in socioeconomic status camouflage many health disparities in the world, including oral health. Occupational status, income and education are intrinsically related and often serve as measure for each-other. In general, the population groups that suffer the worst oral health status are also those that have the highest poverty rates and the lowest education. Higher income enable people to afford better housing and permit increased access to medical care. In the same time, a high level of education increase the opportunity to engage in oral health-promoting behaviors. On the other hand, differences in income and employment of parents, generate inequalities in oral health status of the children.[34] The present study was of the opinion that as socio economic status changes, the attitudes towards oral health also changes, and it was found that the middle and higher class had better knowledge and attitude score regarding oral health than lower socio economic group of women. Similar results were shown in a study conducted by Pentapati et al.[17]

The findings of the present study have a practical importance and far reaching implications on maternal and child health. In certain areas of the questionnaire it was found that the woman's attitude towards oral health was negative. Greater than 50 percent believed that removal of upper teeth affects vision and according to them only white coloured teeth are healthy. Moreover majority (>50%) of the participants considered dental treatments as painful procedures this was found to be directly associated with the education status as those who were educated thought that pain varies with every dental procedure. Results are similar to study conducted by Khan et al. [35]The implication is that the negative attitude of the women towards oral health will influence the development of positive attitude of oral health

of their family members especially the children. It has been observed that consequences of poor oral status of women has a far more consequence on the women, ranging from pains, infections, lower level of concentration at work, reduced ability to chew food, poor appearance and loss of teeth overall leading to reduced quality of life.[2]

Whether working or non working the beliefs and perceptions during pregnancy were not likely to change hence most of them had said that dental treatments should be avoided during pregnancy. Aderinokun (20010) specifically stated that women's failure to maintain an acceptable level of oral health puts their babies and households at the risk of contracting germs from them.[36] Pace & DeAngelis (2001) have suggested that oral infections during pregnancy can put the mother at risk of delivering a premature and low birth weight baby.[37]Buttressing the above statement, the American Academic of Periodontology (2001) revealed that pregnant women with gum diseases are more likely to have their babies born early and with low birth weights. People with gum diseases are more likely to develop heart diseases and untreated decayed teeth put a mother and her baby at high risk of infection.[38] Therefore it is extremely important that women in general and expectant mothers in particular with a healthy mouth and sees a dentist early in their pregnancy irrespective of their occupation, since it has been proven that neglect of this aspect of health of mother can pose serious health threat to the mother, the child, the family and the society at large.

The family is the first institution that influences child behavior and development, especially mothers, who are the primary model for developing behavior .Maintaining oral health during pregnancy has been recognized as an important public health issue worldwide. According to the present study a particularly worrying finding was that nearly half of the women avoided consulting a dentist during pregnancy because of safety concerns regarding dental treatment. This is a commonly cited barrier for pregnant women seeking dental care even though it is well established that dental treatment during pregnancy is safe and would not directly result in adverse pregnancy outcomes. Educating pregnant women and improving their awareness about oral health care during pregnancy can remove many of the concerns and misconceptions they have on this issue, which in turn could influence their oral health practice and potentially improve the uptake of dental services. This will lead them to potentially reduce the risk of preterm birth and childhood caries. The limitation of the present study is that the results cannot be extrapolated to the entire district because generalizations of the result is limited as rural population was not part of the study. The findings are based on self reports and ratings self reported measures are commonly used in cross sectional studies but are subject to over estimation and recall bias.

At the end of the study as of moral obligation all the participants were given the following health message [32]

- Oral health is more than just brushing and flossing your teeth.
- Oral health is critical to overall health.
- Brush teeth twice daily with a fluoride toothpaste (1000 parts per million or PPM)
- Foods and drinks which contain sugar should be kept to a minimum. Keep sugary things to mealtimes.
- Regular use of a fluoride mouth rinse is effective in reducing decay
- Clean between your teeth with interdental brushes or floss at least once a day.
- Use of xylitol and sorbitol in chewing gum for the prevention of caries as part of an oral hygiene routine.

- ❖ Visit the dentist every 6 months

Conclusion

- There is a need to improve oral health attitudes and practices amongst working and non working women.
- Oral health educational activities with more emphasis on importance of regular dental visits, oral self care practices and better control of oral diseases should be instituted.
- Long term awareness programmes are needed to improve oral health knowledge and behaviour and to change attitude towards dental diseases

Recommendations

Every population group has variations in beliefs and practices by socioeconomic status, education level etc. Further research studies can be carried out on rural population for the better understanding of the knowledge, attitudes and awareness about oral health and the various factors that influence among rural population.

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