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ORAL HEALTH STATUS, KNOWLEDGE AND PRACTICES AMONG PREGNANT WOMEN - A QUESTIONNAIRE STUDY.

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ABSTRACT

Background: Oral health is an important component of general health and should be maintained during pregnancy. Poor oral health during pregnancy has an impact on developing fetus and significant adverse potential effects. The present study aims at assessing the oral health status, knowledge and practices of pregnant women. **Methodology:** A total of 250 pregnant women attending outpatient department (OPD) of Krishna Hospital, KIMSDU, Karad were considered for the study. Demographic details and data were collected using 18 close-ended questions regarding the oral health status, knowledge and practices. The data was analyzed using SPSS software. **Result:** The mean level of oral health status, practices and knowledge was 77.05%, 46.32% and 58.64% respectively. 60% had dirty teeth, 58.40% eat sugary and sticky food stuffs, 29.60 had bad breath, 19.60% had bleeding gums. Only 34.80% clean their teeth twice daily, 68.80% did not know bad oral hygiene can affect growth of child, only 55.60% visited dentist during pregnancy and 47.60% did not know fist and last trimester not safe for dental treatment. **Conclusion:** The overall results suggest that the pregnant women have some good practices and knowledge regarding oral health. Routine oral screening and health education is required to improve oral health status in pregnancy. There is the also need for the development of guidelines that will promote referral and visit of pregnant women for dental consultation.

KEYWORDS: oral health and pregnancy, status, knowledge and practice.

INTRODUCTION

Pregnancy is a unique period during a woman's life and is characterized by complex physiological changes, which may adversely affect oral health. Oral health is an important component of general health and should be maintained during pregnancy.[1] The physical changes that occur during pregnancy may increase a woman's susceptibility to oral infections.[2] Poor oral health can have adverse effect like premature birth, low birth weight, pre-eclampsia and high risk of early dental caries in infants.[3]

Maintaining oral health during pregnancy has been recognized as an important public health issue worldwide.[4] Despite the high prevalence of oral health problems during pregnancy a lot of pregnant women do not seek dental care during pregnancy. The non-utilization of dental healthcare might be related to lack of awareness of the association between pregnancy and oral health.[5] Improving oral health and reducing the negative impact of oral disease on overall health and well-being are major health priorities.[6] Hence, the present study aims at assessing the oral health status, knowledge and practices of pregnant women.

METHODOLOGY

The present cross sectional questionnaire study was conducted among the pregnant women attending outpatient department (OPD) of Krishna Hospital, KIMSDU, Karad. A total of 250 pregnant women were included in the study. Those women who were not willing to participate were excluded from the study. Institutional Ethical Committee approval was obtained

before commence of the study. Informed consent was obtained from all the study participants.

The questionnaire consisting of demographic data along with 18 close ended questions based on status, knowledge and practices related to pregnancy and oral health was used. The questionnaire was distributed to pregnant women to be completed in front of investigator. For those who were illiterate the questionnaire was explained and answers were elicited and recorded.

Data analysis

The survey data were analyzed using SPSS (statistical package for social science version 16). Descriptive statistics such as mean and standard deviation for continuous variables and frequency and percentage for categorical variables were calculated and tabulated. Each positive response to status, knowledge and practices was scored as one and negative response as zero. The total scores were added up and divided by total number of subjects to obtain the mean value for status, knowledge and practices respectively, and percentage is obtained accordingly.

RESULTS

Demographic characteristics

A total of 250 pregnant women were surveyed. The age ranged from 18 to 36 years (Table 1) with the mean age of the subjects was 24.48 ± 3.54 years. The majority of participants, 205(82%) were in the age group of 18- 27 years; 45(18%) were in the age group of 28-36 years. Table 2 shows the mean percentages of oral health status (77.05%), practices (46.32%) and knowledge 58.64%.

Table 1. Demographic Characteristics of participants.

Characteristics	Frequency (*n*)	Percentage (%)
Age in years	(Mean age- 24.48±3.5)	
18-27	205	82%
28-36	45	18
Trimester		
I	39	15.6%
II	83	33.2%
III	128	51.2%

Table 2. Mean Level of Status, practices and knowledge of Participants

N	Minimum	Maximum	Mean ± Standard Deviation	Level of Status (%)
Status				
250	3	8	6.16± 1.29	77.05
Practices				
250	0	5	2.32 ±1.32	46.32
Knowledge				
250	0	5	2.93 ± 1.39	58.64

Oral health status

Table 3 depict the percentage of oral health status, majority of participants 150 (60%) felt they had dirty teeth. More than half of the participants 146 (58.40%) consumed more sugary and sticky food stuff. Nearly one third of subjects 74 (29.60%) noticed bad breath**,** while 49 (19.60%) had bleeding gums. Very few participants noticed swelling 12 (4.80%), red patch 11 (4.40%), white patch 9 (3.60%) and loose teeth 8 (3.20%) in their oral cavity.

Table 3. Percentage of oral health status of pregnant women.

Status	*n*		%
Eat Sugary	No	104	41.60
	Yes	146	58.40
Bleeding Gums	No	201	80.40
	Yes	49	19.60
Bad Breath	No	176	70.40
	Yes	74	29.60
Swelling	No	238	95.20
	Yes	12	4.80
Loose Teeth	No	242	96.80
	Yes	8	3.20
White	No	241	96.40
	Yes	9	3.60
Red	No	239	95.60

	Yes	11	4.40
Teeth Dirty	No	100	40.00
	Yes	150	60.00

Oral health practices

Table 4 shows percentage of oral health practices, majority of the participants 203 (81.20%) used tooth brush and tooth paste for cleaning teeth. Only about a third, 87 (34.80%) participants brushed their teeth twice daily. About a fifth of participants 51(20.40%) used mouth wash to maintain their oral hygiene, while 44 (17.60%) used mishree (burnt tobacco ash) or charcoal to clean the teeth. Only 32 (12.80%) participants used a tongue cleaner to clean tongue.

Table 4. Percentage of oral health practices of pregnant women.

Practices	*n*	%	
Clean Teeth	Twice	87	34.80
	Once	163	65.20
Toothpaste	No	47	18.80
	Yes	203	81.20
Mishree	No	206	82.40
	Yes	44	17.60
Tongue Cleaner	No	218	87.20
	Yes	32	12.80
Mouth Wash	No	199	79.60
	Yes	51	20.40

Oral health knowledge

Table 5 shows the percentage of oral health knowledge, 194 (77.60%) participants knew that exposure to x-rays during pregnancy was not safe while an almost equal number, 191 (76.40%) participants know that habits like smoking and drinking alcohol causes oral problems. Slightly more than half of the participants 139 (55.60%) had visited a dentist during pregnancy for routine checkup. Out of 250 participants 131 (52.40%) knew that the first and third trimesters during pregnancy are not safe for dental treatment. Only 78 (31.20%) individuals knew that bad oral hygiene can affect the growth of the child.

Table 5. Percentage of oral health knowledge of pregnant women.

Knowledge	*n*		%
Think Habit	No	59	23.60
	Yes	191	76.40
Go Dentist	No	111	44.40
	Yes	139	55.60
Growth Child	No	172	68.80
	Yes	78	31.20
I & III trimester not safe	No	119	47.60
	Yes	131	52.40
X Ray	No	56	22.40
	Yes	194	77.60

DISCUSSION

It has been known that oral diseases impact negatively on pregnancy outcomes. The pregnant woman who presents for dental care requires special consideration. Understanding the physiologic changes associated with pregnancy and their effects on oral health are essential for providing quality care for pregnant women.[5]

In the present study, majority of the pregnant women were in the age group of 18-27 years, with 128 (51.2%) participants in the third trimester.

Compared to the practices and knowledge, the mean oral health status perceived by pregnant women in our study was good, that is 77.05%. Many of participants had dental problems like dirty teeth, bleeding gums, loose teeth, swelling, red and white patches. Majority of them 60% reported dirty teeth and 58.40% eat more sugary and sticky food stuffs. These findings are consistent with study done by Amit et al[3] where 86.8% women consumed sweets more than once per day.

19.60% of subjects had bleeding gums and only 4.80% had swelling. Bushiru et al[5] in their study report that 32.7% subjects had bleeding gums and 23.5% suffered from swollen gums.

When oral health practices were considered, 81.20% used tooth brush and tooth paste to clean their teeth and 65.20% brushed their teeth at least once daily while only

34.80% brushed twice daily. Amit et al[3] in his study of 400 pregnant women reported that 54% subjects brushed at least once daily and only 3.5% brushed more than once. 94.3% used toothbrush and tooth paste, 22.3% of them used tongue cleaner regularly, whereas only 12.3% of the study subjects used mouthwash.

In study by Sajjan P et al[7] 57.9% brushed their teeth once daily and only 36% brushed twice daily. Christensen LB et al[8] did a study on the oral health of Danish women during pregnancy and reported that 96% brushed their teeth atleast twice a day. In contrast, a study done by Hullah et al[9] on the oral hygiene habits in pregnant women of North London reported good oral hygiene habits such as 73.7% brushed their teeth twice daily and 51% used mouthwash.

A study by Mansour KA et al[10] in Saudi pregnant women showed that 77% of the women brushed their teeth twice daily. Similarly Honkala S et al[11] in their study reported that 66% of their subjects brushed their teeth twice daily.

In our study, most participants had good knowledge about oral health as observed by their responses. 77.60% of participants knew that exposure to radiation was not safe during pregnancy. 76.40% women knew that smoking and alcohol consumption cause oral problems. 52.40% knew that first and third trimester during pregnancy were not safe for dental treatment. These findings indicate that women from this area of Maharashtra have good oral health knowledge compared to other studies. Sajjan et al[7] in their study reported that only 32% of participants were aware that exposure to radiation during pregnancy was not safe and only 15.70% knew that first and third trimester are not safe for dental treatment.

In the present study more than half of the women, 55.60% visited the dentist during pregnancy, which is consistent with the study by Honkala et al[11] in which 50% of the Kuwait pregnant women who had visited a dentist during pregnancy.

Whereas the Australian study reported more than 50% of pregnant women did not receive dental care during their most recent pregnancy.[12,13], while the English study by Hullah E et al[9] reported that only 33% of the English women visited the dentist during pregnancy.

Reason for poor utilization of dental services during pregnancy in our study may be related to lack of awareness of the association between pregnancy and oral health and limited availability of oral health information to pregnant women, fear and misconception associated with dental treatment and perceptions of not having any oral health problems.

CONCLUSION

From our study we found that the pregnant women have some good practices and knowledge regarding oral health. Routine oral screening and health education is required to improve oral health status in pregnancy. There is the also need for the development of guidelines that will promote referral from gynecologists and visit of pregnant women for dental consultation.

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