



ORAL HEALTH; ASSESSMENT OF KNOWLEDGE OF PREGNANT FEMALES REGARDING THEIR ORAL HEALTH STATUS AND ITS COMPLICATIONS ON FETUS

Sarwat Memon¹, Hina Memon²

1. MBBS, FCPS
Assistant Professor
Obstetrics & Gynecology
Isra University Hyderabad.

2. BDS
Dental Lecturer
Prosthodontic Dentistry
LUMHS Jamshoro.

Correspondence Address:

Dr. Sarwat Memon
Banglo No.50, Muslim Housing
Society,
Hyderabad.
dr.sarwat_memon@hotmail.com

Article received on:

07/05/2018

Accepted for publication:

25/11/2018

Received after proof reading:

04/01/2019

ABSTRACT... Introduction: Pregnancy is a high risk factor not only for the mother but for the fetus as well. Certain oral changes especially bleeding gums, loosening of teeth, bad breath altered taste etc occurs secondary to factors like hormonal changes, lack of oral hygiene maintenance, diet, failure to visit dentist despite of having problems. Now a day along with that some other serious issues like low birth weight, pre-term labour, pre- eclampsia and certain oral infections have also been noticed. A study was conducted to evaluate the knowledge of pregnant patients regarding their oral health status, issues and the complications reported to the fetus so that necessary measures could be taken in addition to antenatal care for the health and benefit of mother and the fetus. **Objectives:** Assess the general and oral health status of expectant mothers along with their knowledge regarding the associated complications to fetus. **Study Design:** Random cross - sectional study design. **Setting:** Isra University Hospital. **Period:** August 2017 to January 2018. **Methodology:** A self-administered questionnaire was used to assess the general and oral health status of expectant mothers along with their knowledge regarding the associated complications to fetus. Collected data was statistically analysed by using spss version 17. **Conclusion:** This study provided an invaluable awareness regarding knowledge of pregnant females. Majority of them were poorly educated, did not know even about simple methods of oral hygiene maintenance, refused to visit dentists rather of having problems and above all were completely unaware about the possible risks and hazards to their baby secondary to oral health issues. Thus it was felt deemed necessary to aware and educate expectant mothers regarding routine oral checkup during antenatal period.

Key words: Periodontal Problems Infants. Oral Health, Pregnant Mothers Oral Hygiene. Periodontal Low Birth Weight, Preterm Labour.

Article Citation: Memon S, Memon H. Oral health; assessment of knowledge of pregnant females regarding their oral health status and its complications on fetus. Professional Med J 2019; 26(1):160-164.
DOI: 10.29309/TPMJ/2019.26.01.2598

INTRODUCTION

Pregnancy is a remarkable period in a woman's life and is described by complex physiological, emotional and hormonal changes.^{1,2} Oral health preservation during pregnancy has been an important health issue now a day worldwide.¹ Women during pregnancy generally skip dental advice and treatment due to multiple factors as financial, socio-cultural factors, absence of open familiarity with the significance of oral wellbeing and worries for fetal security amid dental treatment.³

Transmission of streptococcus mutans from mother to infant, the essential microorganism in oral infections, have been reported in research

works showing the immediate impact of mother's oral well being status on their baby's oral health.⁴

Studies have demonstrated a antagonistic relationship of pregnancy with oral problems like gingivitis represented by redness, edema and bleeding gums secondary to large amounts of progesterone and estrogen.^{1,2} Some other contributing factors to oral crumbling are lack of nutrition, diet habits particularly incremental utilization of carbs to overcome nausea and pregnancy actuated vomiting.

Expecting or breast feeding mothers with untreated dental caries may likewise pass on cariogenic microorganisms to their infants

through wrong feeding manners.³

Currently, oral wellbeing of pregnant ladies have drawn more interest because of strong correlation of periodontitis with low-birth weight, premature birth, pre-eclampsia^{5,6, 7} and this interrelationship bears huge significance because of the increased prevalence of infant and maternal mortality rates.⁸

Growing evidence shows that good oral health of mother right from pregnancy could be the key to establishing good infant oral health.⁹

Counteractive action of oro dental issues and their complications during pregnancy is attainable amongst pregnant patients by communicating, learning, expressing their issues, pursuing right treatment at correct time and by instructing and encouraging them.¹⁰

The main focus of antenatal care has always focused at guaranteeing maternal health protection and with delivery of healthy babies. Although oral health is considered as an essential for future safety of pregnant women in developed nations it still is of undervalue developing countries. Therefore it was felt necessary to conduct a study in our local environment to evaluate the knowledge of expectant mothers especially the areas of deficiency and myths so that necessary measures could be taken in future to prevent potential complications amongst mothers and new borns by conducting a comprehensive oral health evaluation, risk assessment, formulating recommendations during antenatal care.

METHODOLOGY

This was simple random sampling study conducted at Isra University Hospital from August 2017 to January 2018. A self administered questionnaire was used to assess the general and oral health status of expectant mothers along with their knowledge regarding the associated complications to fetus. Collected data was statistically analysed by using SPSS version 17.

RESULTS

Table-I describes the socio economic data of the study. It can be observed that maximum number

of expectant mothers 85% were in age group between 21-30 yrs with 48% having minimum education level upto primary or secondary schooling. With regard to employment only 18% were having income of their own (Table-I). Table-II shows the prevalence of parity status with 34% mothers having their first or third baby while 37% were in their second trimester. Table-III demonstrates data in regards to oral cleanliness of pregnant ladies with 80% reported dental clinic just when requires and only 20% were using correct methods and techniques of brushing. 74% of patients reported altered taste during pregnancy followed by 42% complaining of burning mouth/tongue, tooth ache loosening of teeth and sensitivity. 40% also reported to have bleeding gums (Figure-1). The reasons for not consulting the dentist were lack of knowledge 28%, financial issue 8.5% and not wanting to go to dentist in 37% (Figure-2). None of the expectant mother agreed to have heard about the association of fetal complications secondary to poor oral hygiene.

Variable	Age Range	N	%
Age	Below 20	2	2.8%
	21-30	60	85%
	30 above	8	11.4%
Qualification	Undergraduate	34	48%
	Bachelors	24	34%
	Masters	12	17%
Job Status	Employment	13	18%
	Unemployment	57	81%

Table-I. Socioeconomic information of pregnant women evaluated:

Variable		N	%
Parity Status	1 ST	24	34%
	2 ND	18	25%
	3 RD	24	34%
	5 TH	02	2.8%
Trimester	1 ST	18	25%
	2 ND	13	37%
	3 RD	12	34%

Table-II. Information regarding pregnancy

Variable		N	%
Cleansing Aids	Brushing (once a day)	56	80%
	Brushing (twice a day)	14	20%
	Floss	-	None
Dental Check up	Once a yr	14	20%
	When in need	56	80%

Table-III. Information relating to the care of oral health of pregnant women

ORAL CHANGES DURING PREGNANCY

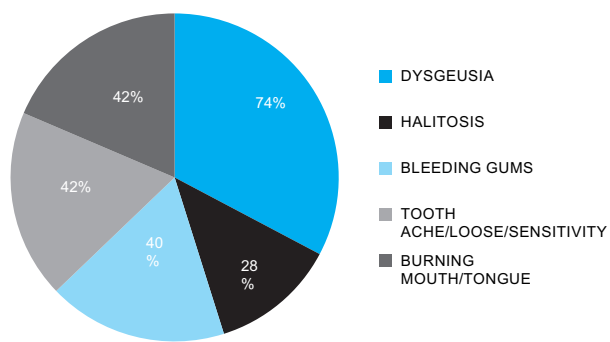


Figure-1

REASON FOR NOT CONSULTING

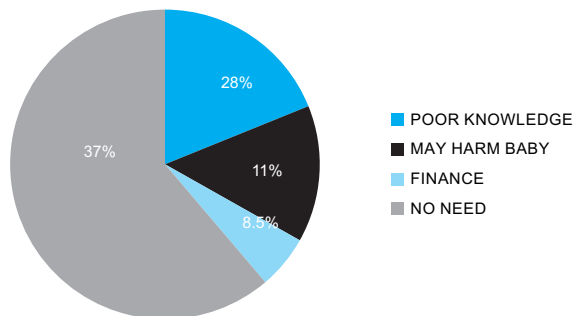


Figure-2

HAVE YOU HEARD ASSOCIATION OF ORAL HEALTH TO FETAL COMPLICATIONS

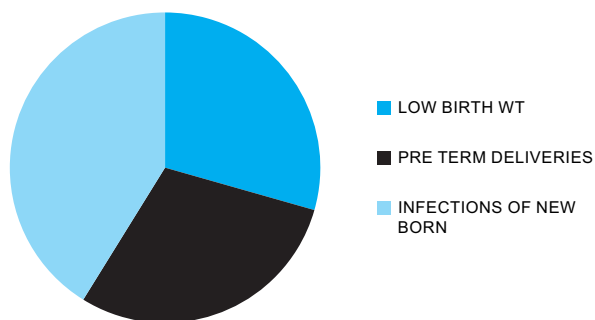


Figure-3

DISCUSSION

The percentages revealed that 85% of respondents were aged between 21-30 yrs followed by 11.4% in above 30 yrs and only 2.8% were below 20 yrs of age. Results contrasted and other investigation likewise demonstrates that greatest number of patients i-e 50.34% were between age aggregate 12-22 yrs.⁹ These results point to a turnout of pervasively youthful mothers, so they will likely learn and be more careful regarding perspectives towards soundness of their youngsters. The education status of patients with majority fall in category of primary or secondary i-e 48%, proceeding to bachelors 34% and only 17% were masters. Comparing these results with other study found similar results with 33.33% had incomplete schooling and only about 2% did their higher education.⁹ It was observed that 81% of women were house wives while only 18% were employed (Table-I). Another study also showed that 32.65% were unemployed while 26.53% were working.⁹ Table-II shows that maximum number of patients were in their first and third pregnancy and nearly more number being in second trimester. It can be contrasted with other study which states that 70% of patients were in their second and third pregnancies with more prominent number in first trimester.¹ Data identified with oral cleanliness significance uncovers that 80% of patients went to dental practitioners just when they had some issue in any case being pregnant or not (Table-III). Contracting this data with other studies revealed that lone 6.1%, 4% and 36% expectant moms in various reports went by dental practitioners amid their pregnancy. Only 20% had significant knowledge about brushing technique and duration and brushed twice a day.¹⁰ Other studies reported contrasting results ranging from most reduced number 64% brushing twice a day to 73.7%, 77% and 96% respectively.¹² Further reported in same study that 24.4% expectant mothers were utilizing other form of dental aids while none reported in our study. Majority of patients 74% answered to have change in taste during pregnancy while 42% had tooth ache, loosening or sensitivity and 40% suffer from bleeding gums. 28% also complained about bad breath (halitosis) (Figure-1). These results were contrasted to other studies reporting maximum

number of patients 61.3% having bad taste with 62.5% bad breath, 56.2% had sensitivity, 38.8% tooth ache and 31.3% having bleeding gums.¹¹ The three general obstacles for not counselling dental practitioners were lack of knowledge 28%, myths like dental treatments may harm the baby 11% and financial issues in 8.5% but above all three the maximum number of 37% reported that they were unaware (Figure-2). Another study demonstrated divergent reasons like long holding up hours 53.7%, long distances 24.4% and negative attitude of medical workers 9.8%.¹⁰ Still another study done in USA reports that nearly half i-e 44.7% patients consulted dentists during pregnancy despite of having oral problems.³ All of the participants in this study denied about the awareness of possible association between poor oral hygiene with low birth weight babies, pre term labour, pre eclampsia or any other infections while another study also reported that more than 50% of patients were unaware about the link.³ Still another study also reported strong link between fetal complications with poor oral health status.⁷

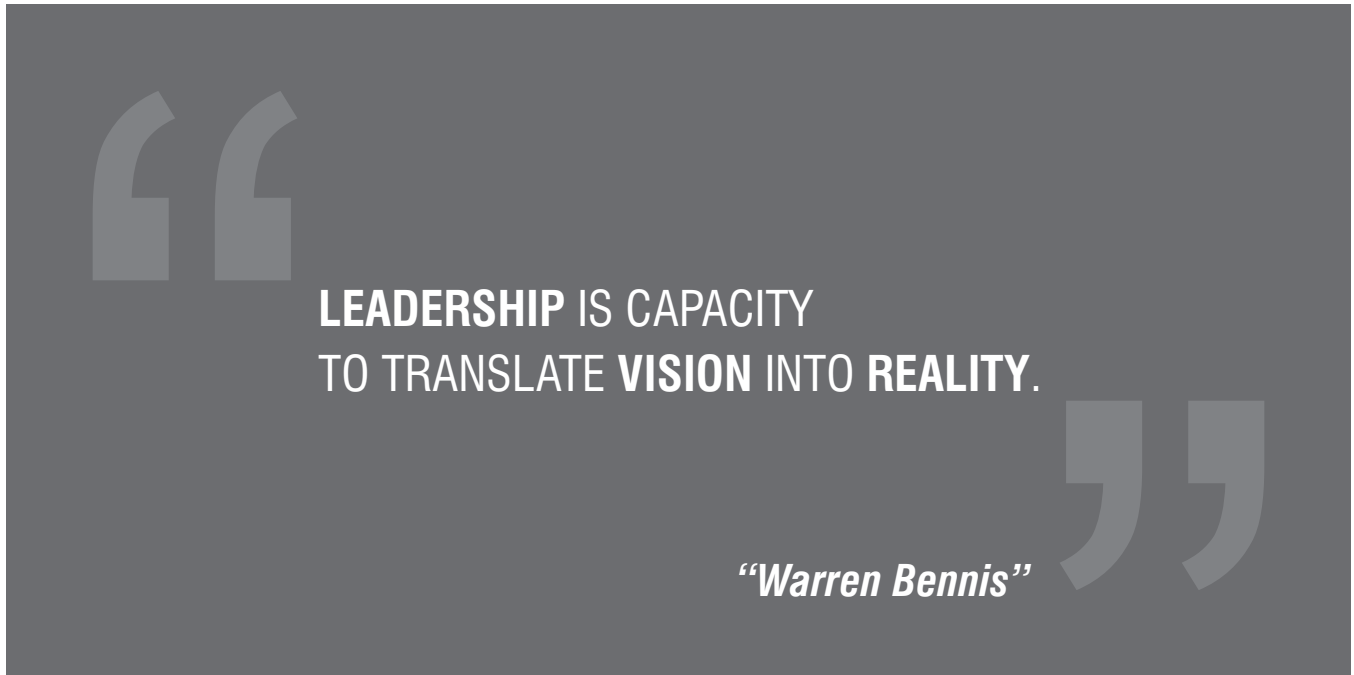
CONCLUSION

This study provided an invaluable awareness regarding knowledge of pregnant females. Majority of them were poorly educated, did not know even about simple methods of oral hygiene maintenance, refused to visit dentists rather of having problems and above all were completely unaware about the possible risks and hazards to their baby secondary to oral health issues. It was felt that there is an intense need of educating expectant mothers and makes it a mandatory part of their routine antenatal examination to visit the oral health care providers at least once during pregnancy. It was also perceived of extreme importance to conduct more studies involving obstetrician to verify and document the existence of strong correlation between oral health status and serious fetal complications.


Copyright© 25 Nov, 2018.

REFERENCES

- Gambhir RS, Nirola A, Anand S. **Oral health knowledge and awareness among pregnant women in India: A systematic review.** J Indian Soc Periodontol. 2015, Nov/Dec; 19(6):612-17.
- Cengiz SB. **The pregnant patient: Considerations for dental management and drug use.** Quintessence Int. 2007; 38:133-42.
- George A, Johnson M, Blinkhorn A, Ajwani S, Bhole S, et al. **The oral health status, practices and knowledge of pregnant women in south-western Sydney.** Australian Dental Journal 2013; 58: 26-33.
- Dye BA, Vargas CM, Lee JJ, Magdere L, Tinanoff N. **Assessing the relationship between children's oral health status and that of their mothers.** J Am Dent Assoc. 2011; 142:173-83.
- George A, Shamim S, Johnson M, Ajwani S, Bhole S, Blinkhorn A, et al. **Periodontal treatment during pregnancy and birth outcomes: A meta-analysis of randomised trials.** Int J Evid Based Health. 2011; 9:122-47.
- American Academy of Pediatric Dentistry, **Clinical affairs committee-infant oral health subcommittee. Guideline on infant oral health care.** Pediatr Dent. 2012; 34:148-52.
- Abiola A, Olayinka A, Mathilda B, Ogunbiyi O, Modupe S, Olunbunmi O. **A survey of the oral health knowledge and practices of pregnant women in a nigerian teaching hospital.** African Journal of Reproductive Health December 2011; 15(4): 14-19.
- Reddy H, Pradhan MR, Ghosh R, Khan AG. **India's progress towards the millennium development goals 4 and 5 on infant and maternal mortality.** WHO South-East Asia J Public Health. 2012; 1:279-89.
- Chacko V, Shenoy R, Prasy HE, Agarwal S. **Self-reported awareness of oral health and infant oral health among pregnant women in Mangalore, India-A prenatal survey.** Int J Health Rehabil Sci. 2013; 2:109-15.
- Bamanikar S, Kee LK. **Knowledge, attitude and practice of oral and dental healthcare in pregnant women.** Oman Med J. 2013. Jul; 28(4):288-91.
- Nogueira BML, Nogueira BCL, Fonseca RR, Brando GAM. **Knowledge and attitude of pregnant women about oral health.** Int J Odontostomat. 2016; 10(2):297-302.
- Thomas A, Jacob A, Shetty S. **Evaluation of the knowledge and attitude of expectant mothers about infant oral health and their oral hygiene practices.** J Int Soc Prev Community Dent. Sep/Oct, 2015; 5(5):400-5.
- Rosell FL, Junior AV, Tegliaferro EP, Silva SR. **Prevalence and severity of oro facial pain in pregnant women.** Rev Gaucha Odontol. Jan/Mar, 2014; 62(1):47-51.



AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Sarwat Memon	Conceived data, Data collection, Analysis, Wrote article.	
2	Hina Memon	Conceived the data, Data input, editing	