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Oral Health Knowledge, Attitude, Practices among Pregnant Women

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Abstract

Pregnancy is a natural process that may create some changes in different parts of the body including oral cavity. These changes will lead to oral diseases if enough and timely care of oral cavity is not taken. The oral cavity is an obvious portal of entry to the body and oral health reflects and influences general health and well-being. Maternal oral health has significant implications of birth outcomes and infant oral health. Maternal oral diseases have been associated with preterm birth, development of pre-eclampsia and delivery of a small-for-gestation age infant. Maternal oral flora is transmitted to the newborn infant and increased cariogenic flora in the mother predisposes the infant to the development of caries. Pregnant women have special oral health needs due to hormonal fluctuations (estrogen and progesterone), which have a strong influence on the oral cavity. WHO, World Health Day theme of 1998, "Safe Motherhood Pregnancy is Precious, Let's make it Special" draws our special attention toward this priority group, which needs special care. Preventive, diagnostic and restorative dental treatment is in safe throughout pregnancy and is effective in improving and maintaining oral health.

Keywords: Pregnancy; Oral Health; Preterm Birth; Pre-Eclampsia; Small-for-Gestation Age.

Introduction

Pregnancy is a vital event in the life of a woman; it needs special attention from the time of conception to the postnatal stage. Every pregnancy is a unique experience for women, characterized by complex physiological changes, which adversely affect oral health. WHO defines oral health as "being free of chronic mouth and facial pain, oral and throat cancer and often diseases and disorders that affect the month and oral cavity?" Oral health is essential to the health and well-being of both the pregnant mother and her baby. The Pregnancy Risk Assessment Monitoring System reported that just 23-43 percent of the pregnant women receive dental care during pregnancy.

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Common oral problems in pregnancy are oral lesions, dental caries, pregnancy oral tumor (pyogenic granuloma), and loose (mobile) teeth, gingivitis, peridontitis. Numerous metabolic and hormonal changes considered to be related to fluctuations in estrogen and progesteron levels leading to increased vascular permeability and a decrease in host immunity favoring increased sensititvity to oral infections. Women are at higher risk during pregnancy of poor oral health due to hormonal changes, dietary changes and increased nausea and vomiting.

Comprehensive prenatal health care should include an assessment of oral health, but this is often overlooked. Oral health care in pregnancy is often avoided and misunderstood by physicians, dentists and patients. Some prenatal oral conditions may have adverse consequences for the child. Maternal oral diseases have been associated with preterm birth, development of pre-eclampsia and delivery of a small for gestation age infant, low birth weight infant particularly among women from lower socio economic backgrounds. Maternal oral flora is transmitted to the newborn infant and increased cariogenic flora in the mother predisposes the infant

to the development of caries. Even an oral problem occurs, only one half of pregnant woman attend to it. This problem is compounded by a lack of national clinical guidelines for the management of common oral conditions in pregnancy.

In addition to a lack of practice standards, barriers to dental care during pregnancy include inadequate dental insurance, persistent myths about the effects of pregnancy on dental health, and concerns for the fetal safety during dental treatment. Pregnancy is also an opportune time to educate women about preventing dental caries, in young children one of the most common childhood problems. Therefore by improving the oral health of pregnant women will prevent the complications of pregnancy associated dental disease and can potentially reduce early childhood caries as well as the preterm and low birth weight deliveries. Therefore, this study was undertaken to assess the knowledge, attitude and practices on oral health during pregnancy among pregnant women attending outpatient department, government general hospital, Kurnool.

Review of Literature

Avula Haritha et al., 2013 conducted a cross sectional questionnaire based on survey on 359 pregnant women in Hyderabad to identify various risk indicators for gingival bleeding during pregnancy, with particular reference to their knowledge, attitude and practices in relation to oral care and adverse pregnancy outcomes. The results showed that majority (87.2%) were not aware of the importance of oral hygiene and its probable association with adverse pregnancy outcomes. None of the respondents even used dental floss, only a few (1.4%) had heard about it.

Parappa Sajjan et. al., (2015), conducted a cross-sectional survey among 332 pregnant women to assess the knowledge and practices of pregnant women regarding oral health. The results showed the overall level of knowledge and practice was 27.17% and 55% respectively.

Majority of the respondents (89.10%) were not aware that gum diseases are common during pregnancy. Most of them (73.07%) were not aware of safe period for undergoing dental treatment during pregnancy. Only 19.87% were aware that exposure to high dose of radiation was hazardous to their babies. Around 18.6% did not brush when they experienced bleeding, 35.25% cleaned their teeth using finger.

Adeniyi Abiola et. al., (2008) conducted a cross-sectional questionnaire based survey at the LASUTH antenatal clinic during the period January – June 2008, to describe the self reported oral health knowledge, attitudes and oral hygiene habits among pregnant women. The results showed the relationship between the levels of oral health knowledge and ethnicity (p=0856), level of education (p=0.079), age category (p=0.166) and trimester of pregnancy (p=0.219) were not statistically significant and there is a need to provide oral health education for pregnant women.

Natalie J Thomas et. al., (2007) conducted a postnatal survey in Australia to assess women's knowledge and experiences of dental health in pregnancy and to examine the self care practices of pregnant women in relation to their oral health. A sample of 388 pregnant women was selected. The results showed that pregnant women with low education and lower socio economic status were more likely to be at higher risk of poor periodontal health.

Shashidhar Acharya, Bhat P V (2009) conducted a cross-sectional study to assess the differences in oral health and perceived oral health related quality of life (OHRQOL) between 259 pregnant and 237 non pregnant women. The results showed that the perceived OHRQOL was significantly poorer among the pregnant than non-pregnant women. Factors such as pregnancy number ($p<0.05$), decayed, missing, filled teeth scores ($p<0.0001$), and Gingival Index scores ($p<0.001$) were significant predictors for OHRQOL.

Objectives

The objectives of the study were:

- To assess the knowledge of pregnant woman on oral health during pregnancy
- To know the attitude of pregnant women towards oral health
- To identify the oral health practices of pregnant women
- To suggest suitable measures or interventions

Methodology

The present study was a descriptive cross-sectional study which was conducted among the pregnant women admitted in antenatal inpatient wards, Government general hospital, Kurnool. The data were

collected from July 20017 to October 2017. The subjects were selected by using convenience sampling technique. The sample size was 100 pregnant women. The data were collected from interviewing of the subjects through a questionnaire. The questions were based on knowledge, attitude and practices related to oral health during pregnancy.

Results

The results of the study were described as follows.

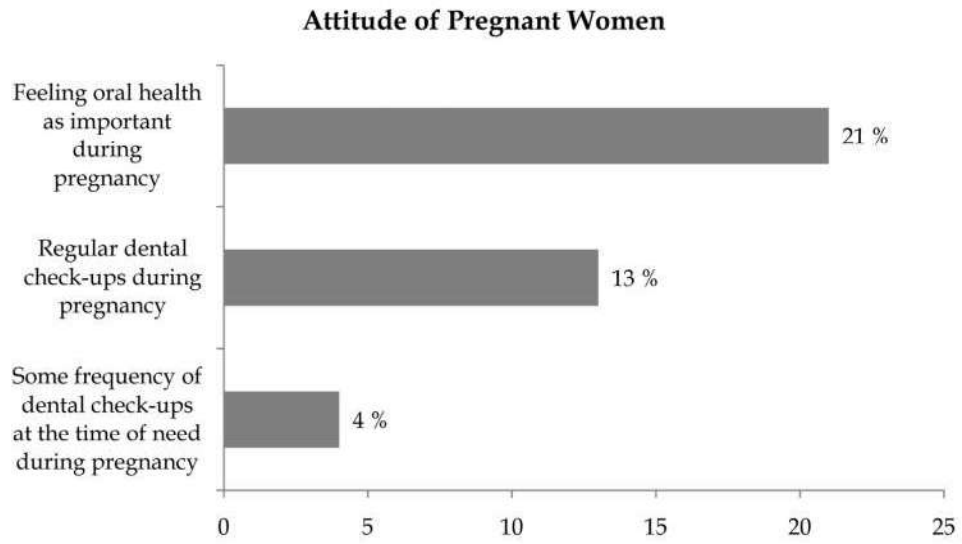
Table 1 shows the frequency and percentage distribution of pregnant women according to socio demographic and reproductive variables. Majority

Table 1: Frequency and percentage distribution of pregnant women according to socio demographic and reproductive variables

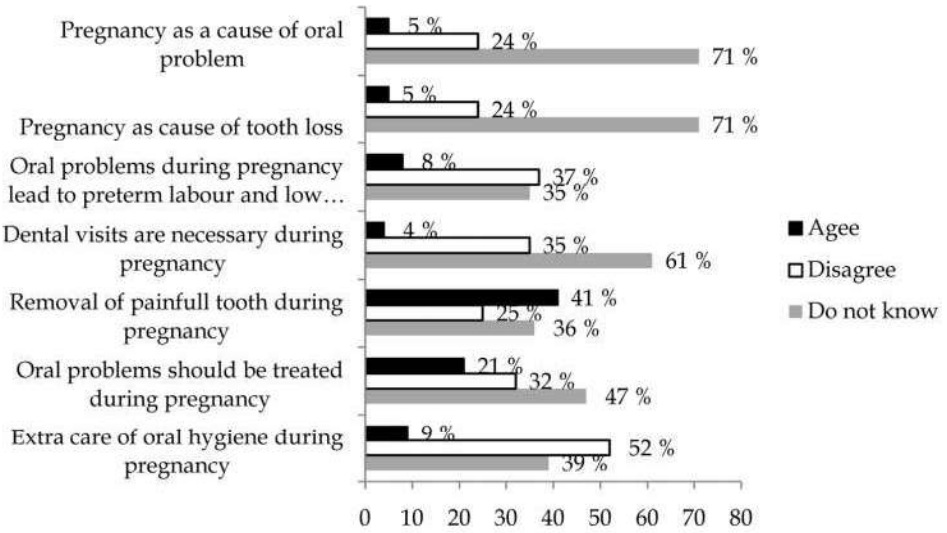
Variable	Frequency & Percentage
Age in Years	
15-24	51
25-34	38
35-44	11
Religion	
Hindu	51
Islam	30
Christian	19
Others	--
Locality	
Rural	84
Urban	26
Education	
Illiteracy	13
Primary	41
Secondary	29
Intermediate & above	17
Occupation	
Homemaker	38
Cultivation	23
Daily wage labor	20
Govt. Employee	04
Private Employee	06
Others	09
Type of family	
Nuclear	69
Joint	31
Monthly Income	
Rs. ≤ 10,000/-	43
Rs. 10,001 – 15,000/-	36
Rs. > 15,000/-	21
Diet	
Vegetarian	17
Nonm-Vegetarian	04
Mixed	79
Parity	
Primi	27
One	39
Two	28
More than two	06
Trimister	
First	41
Second	36
Third	23

of the respondents 51 percent were between 15 to 24 years of age, 51 percent were Hindus, 84 percent belong to rural area, 41 percent had primary education, 38 percent were homemakers, 69 percent belonged to nuclear family, 43 percent had monthly income Rs, ≤ 10,000/-, 79 percent taking mixed diet, 39 percent belonged to para one, 41 percent first trimester.

Graph 1 shows the attitude of pregnant women towards oral health. Only 21 percent of the respondents felt oral health as important during pregnancy, 13 percent had dental check-ups during pregnancy and 4 percent had dental check-ups at the time of dental need.



Graph 1: Percentage distribution of pregnant women regarding the attitude of oral health



Graph 2: Percentage distributions of pregnant women regarding the knowledge about oral health during pregnancy

Table 2 show the frequency and percentage distribution of pregnant women regarding oral health practices. Majority of the sample 87 percent were using tooth brush as a cleaning aid, 96 percent brush once a day, 91 percent used tooth paste for brushing, 41 percent brushed for ≤ 1 minute, 55 percent used safety pins, small sticks and others for inter-dental cleaning, 78 percent do not know the type of tooth paste, 51 percent changed tooth brush for every 1 to 3 months.

Graph 2 shows the percentage distribution of pregnant women regarding the knowledge about oral

health during pregnancy. Majority of the respondents 71 percent do not know the pregnancy as a cause of oral problem and tooth loss, 57 percent disagreed preterm labor and low birth weight are due to oral problems, 61 percent do not know the necessary of dental visits during pregnancy, 41 percent agreed for removal of painful tooth during pregnancy, 47 percent do not know the need for treatment for oral problem during pregnancy and 52 percent disagreed extra oral hygiene care during pregnancy.

Table 2: Frequency and percentage distribution of pregnant women regarding oral health practices

Variable (Oral health practice)	Frequency & Percentage
Cleaning aid used	
Tooth brush	87
Fingers	02
Neem stick	11
Frequency of tooth brushing	
Once a day	96
Twice a day	04
Material used for brushing	
Tooth paste	91
Tooth powder	06
Others	03
Duration of tooth brushing	
≤ 1 minute	41
2 minutes	27
> minutes	32
Interdental cleaning aid used	
Mouthwash	02
Toothpick	17
Dental floss	00
Salt water	13
Safety pin, small stick & others	55
Type of tooth paste	
Fluoridated	13
Non-Fluoridated	09
Do not know	78
Frequency of changing tooth brush	
1 – 3 months	51
4 – 6 months	34
7 – 9 months	09
10 – 12 months	06

Conclusion

Good oral health during pregnancy can not only improve the health of the pregnant mother, but also potentially the health of her child. Pregnancy is a teachable moment when women are motivated to adopt healthy behavior. The overall results suggest that knowledge and practices of pregnant women need to be greatly improved. All necessary measures should be taken for maintenance of oral hygiene and to avoid complications due to oral problems. Education of oral health should be a part of regular antenatal care. The gynecologist and obstetrician should make the oral health care mandatory during pregnancy. Various health promotion interventions should be carried during pregnancy in order to motivate and educate expectant mothers on importance of good oral health.

References

1. Avula Haritha et. al. KAP assessment of Oral Health and Adverse Pregnancy Outcomes Among Pregnant Women in Hyderabad, India, Oral Health Prev Dent 2013;11(3):261-270.
2. Adeniyi Abiola et. al. A survey of the oral health knowledge and practices of Pregnant women;

African Journal of Reproductive Health, 2008;15(4): 14-19.

3. Chawla R.M. et. al. Knowledge, Attitude and Practices of Pregnant Women regarding Oral Health Status and Treatment Needs following Oral Health Education in Pune District of Maharashtra, J. Contemp Dent Pract 2017;18(5):371-377 (ISSN: 1526-3711).
4. Ehsan S. et. al. Effect of Dental care Information Support on level of Oral Health Knowledge, Practice and Gingival condition during Pregnancy, International Journal of Research is Applied, Natural and Social Sciences, 2017 Sep;5(9):15-34.
5. Gupta R et. al. Oral Health Status and Treatment Neds among Pregnant Women of Raichur District, India: A population Based Cross-sectional Study. Scientifa (Cairo) 2016; 2016: 9860387. Doi:10.1155/2016/9860387.
6. Hugh Silk et al. Oral health during Pregnanc, American Family Physician, 2008.p.1139-1144
7. Jaiganesh Ramamurthy et. al. Assessment of knowledge And Awareness About Peridental Oral Health Among Pregnant Women-A Questionnaire Study: Int J Cur Res Rev. 2017 Jan;9(1):9-12
8. Johnson et. al., BMC oral Health 2015, 15:2 http://www.biomedicentral.com/1472-6831/15/2.
9. Kim A. Boggess et. al., Oral Health in Women During Preconception and Pregnancy: Implications for Birth Outcomes and Infant Oral Health, Maternal and Child Health Journal, September 2006;10(1):169-174.
10. Parappa Sajjan et. al. Oral Health Related Awareness and Practices among Pregnant Women in Bagalkot District, Journal of International Oral Health 2015;7(2):1-5.
11. Ramandeep[Singh et.. al., Oral Health Knowleddge and awareness among Pregnant Women in India: A systematic review, Journal of Indian Society of Peridentology,2015;19(6):612-617. Doi: 10.4103/0972-124 x 162196.
12. Reshma Amin et. al. Oral Health Status During Pregnancy in Mangalore, Nitte University, Journal of Health Science, 2014;4(2):114-117, ISSN:2249-7110.
13. Shashidhar Acharya et. al. Oral health related quality of life during pregnancy; Journal of Public Health Dentistry 2009;69(2):74-77.
14. Thomas et. al. Oral and dental health care practices in pregnant women'; BMC pregnancy and child birth 2008;8:13. ISSN: 1471-2393.