

Knowledge, Attitude and Practice of Oral Health in Pregnant Females: A Hospital based Observational Study

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Abstract

The objective of this study was to assess the knowledge regarding oral health, perceptions and attitude towards maintaining oral hygiene, methods adopted to maintain oral hygiene in pregnant women. This cross sectional study was conducted for a period of 4 months on 390 pregnant females who reported to the Outpatient Department of Obstetrics and Gynaecology of various hospitals in the city of Bathinda, Punjab. Data collection included a face to face interview and information gathered were filled in a pretested questionnaire which had questions related to various aspects of oral health that are mainly affected during pregnancy.

Keywords: Oral health, Pregnant females, Observational study

1. Introduction

Oral health is one of the most important aspects of general health but awareness regarding the same is yet to reach a large section of the society mainly people from lower socioeconomic status. As empowering women empowers the society, it is imperative for them to know about the importance of oral health and adverse outcomes due to its negligence especially during pregnancy.

The natural process of pregnancy can cause a variety of physiological changes in the body, including in the oral cavity. These changes may lead to oral diseases if enough and timely care is not given. Pregnant women are at an increased risk of developing oral diseases, including periodontal disease and gingivitis, due to hormonal changes and the increased pH in the oral cavity during pregnancy. [1] Gingival changes like edema, erythema, increased tendency to bleed is frequently seen in women during pregnancy which can have adverse effects both on the mother and child. Moreover, there is an increased number of periodontal pathogens like Prevotella as they require the mentioned steroidal hormones for their growth making the oral mucosa more sensitive to external factors. Hence pregnant women are more susceptible to gingival inflammation even with relatively low levels of plaque. It is evident that oral diseases have been associated with adverse pregnancy outcomes including gestational diabetes, preeclampsia and the

delivery of preterm and/or low birth weight babies. Furthermore, poor maternal oral health is recognized as a risk factor for early childhood caries. The American Academy of Periodontology recommends that periodontal examination and appropriate treatment should be given to pregnant women and women planning for pregnancy. So, it is essential to maintain good oral hygiene and take necessary treatments during pregnancy to avoid unfavorable outcomes. [2]

With this background, the present study was undertaken with the objective to assess the knowledge regarding oral health and awareness regarding the link between periodontal diseases and pregnancy outcomes, perceptions and attitude towards maintaining oral hygiene, methods adopted to maintain oral hygiene in pregnant women.

2. Methodology

To conduct this cross sectional study, approval was obtained from the Ethics Committee for Biomedical and Health Research, Adesh University, Bathinda (vide Reference letter no. – AU/EC_BHR/2K23/473 dated 19 September 2023). A pilot study was first conducted to check the feasibility of the study on 50 pregnant women, the data of which is not included in the final sample. The study was conducted for a period of 4 months on 390 pregnant females chosen through convenience sampling who reported to the Outpatient Department of Obstetrics and Gynecology of various hospitals in the city of Bathinda, Punjab. Pregnant women in any of the trimesters of pregnancy, who were willing to participate and sign the informed consent form, were included in the study. Data collection was done through face to face interviews and information gathered were filled in a pretested questionnaire which had closed ended questions regarding sociodemographic data, pregnancy information and their knowledge and attitude regarding importance of oral health during pregnancy and methods followed to maintain oral health. Cronbach Alpha of 0.80 indicated good internal consistency.

Data was compiled and statistical analysis was done using Microsoft Excel. Descriptive statistics included frequencies and percentages. The association was checked using chi-square test and p value < 0.05 was considered statistically significant.

3. Results

Demographic Details			
Age	< 25 years	25 – 35 years	>35 years
% age of Pregnant females	15 %	55 %	25 %
Period of gestation	1 st trimester	2 nd trimester	3 rd trimester
% age of Pregnant females	40 %	35 %	25 %
Employment status	Employed	Unemployed	
% age of Pregnant females	65 %	35 %	

4. Questions Answered by The Participants

The percentage of pregnant females with the respective answers is mentioned against the questions asked.

Knowledge of the participants regarding oral health during pregnancy	Strongly Agree	Agree	Disagree	Strongly disagree
Maintaining oral hygiene during pregnancy is important	40	25	15	20
Dental problems can have adverse effects on the unborn child	35	30	15	20
Regular brushing is important especially to counteract acidic environment caused by vomitus during pregnancy	45	20	20	15
Dental consultation during the start of pregnancy is important	15	20	35	30

Attitude of the participants towards oral health:		
	True	FALSE
Pain in gums and bleeding normal during pregnancy	45%	55%
Pregnancy causes loosening of the teeth	91%	9%
Visit to a dentist is safe during pregnancy	60%	40%
Pregnant females should avoid dental treatment unless it is an emergency	25%	75%
Oral health and pregnancy are related	55%	45%
Not maintaining oral health can affect the children	98%	2%
Not maintaining oral hygiene during pregnancy can lead to early delivery	99%	1%

Practice of oral health hygiene by the participants				
Means of cleaning teeth	Manjan	Tooth powder	Toothpaste and brush	
% age of Pregnant females	24 %	31 %	55 %	
Frequency of brushing per day	None	Once	Twice	More than twice
% age of Pregnant females	5 %	78 %	13 %	4 %
Frequency of changing toothbrush	1 month	2 Months	More than 2 months	
% age of Pregnant females	12 %	13 %	75 %	
Last dental visit	Last 3 - 6 months	6 months - 1year	Never	
% age of Pregnant females	12 %	35 %	53 %	

A total of 350 questionnaires were properly completed and analyzed. Most of the women (46%) were in the age group of 25-30 years. Educational status showed significant association with awareness regarding oral health especially during pregnancy. 42% of the participants had sound knowledge of adverse effects of poor oral hygiene but only 14% could tell that it might have adverse effects on the baby as well. 58% pregnant women asserted that dental and periodontal problems during pregnancy were usual but not normal as it demands proper care and management. Very few people (12%) consider it is important to take dental consultation in the beginning of pregnancy so that treatment plan (if any) can be made in advance, as only the second trimester of pregnancy is safe to conduct any dental procedure with all necessary precautions. Majority (74%) of the respondents used toothbrush and toothpaste for oral cleaning. 84% of the participants did not visit any dentist in the last one year even after facing dental problems.

5. Discussion

Many studies conducted also showed similar results. In a study done by Sajjan P et al, it was revealed that nearly 40% of subjects said that they reported to dentists when experience any dental problems and only 17% consulted dentist for treatment. [3] A similar research study from Nigeria reported low knowledge of oral hygiene and poor compliance to oral hygiene practices. [4] In addition, Daneshvar et al reported moderate knowledge during pregnancy. [5]

In our study, it was found that there were insufficient knowledge and awareness regarding oral health among the participants, though some women were concerned and took good care of their oral hygiene. It is important to educate women especially in rural areas during antenatal period in order to improve maternal health as well as health of the newborn. It is also essential for the consultant gynecologists to recommend their patients to get oral health checkup done on time to avoid unfavorable outcomes. Basic health facilities are provided in health and wellness centers, only awareness among the beneficiaries can lift the societal health and help formulate a better and healthier future.

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