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Research Article

**ORAL HEALTH CHALLENGES IN PREGNANT WOMEN IN  
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**Abstract:**

**Introduction:** Pregnancy is a state of physiological condition that brings about various changes in the oral cavity along with other physiological changes taking place throughout the female body. Gingival hyperplasia, gingivitis, pyogenic granulomas and various salivary alterations are some of the changes commonly witnessed among pregnant women. **Objectives of the study:** The main objective of our study is to find the oral health challenges faced by the pregnant women in Pakistan. **Methodology of the study:** This cross sectional study was conducted in Allied Hospital Faisalabad during 2019 to 2020. A convenience sample of 100 pregnant women was invited to participate by a dental assistant. **Results:** We select 100 patients for our study and these are pregnant women who completed the survey. The mean age of the participants ranged from 16 to 40 years. More than half (59.3%) reported dental problems during pregnancy, less than a third (30.5%) saw a dentist in the last six months, only 10% had received any information about perinatal oral health and many (>50%) were unaware of the potential impact of poor maternal oral health on pregnancy and infant outcomes. **Conclusion:** The present study indicates that the oral health status is not appropriate among the pregnant women. On the other hand, the high prevalence of dental plaque, poor periodontal condition and unsatisfied treatment require a preventive population based strategy with an emphasis on the improvement of the oral self-care for the pregnant women.

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## INTRODUCTION:

Pregnancy is a state of physiological condition that brings about various changes in the oral cavity along with other physiological changes taking place throughout the female body.<sup>1</sup> Gingival hyperplasia, gingivitis, pyogenic granulomas and different salivary modifications are a portion of the progressions normally saw among pregnant women.<sup>2</sup> The part of elevated amounts of flowing estrogen is entrenched and connected with high pervasiveness of gingivitis and gingival hyperplasia.<sup>3</sup> Progesterone in the serum is likewise observed to be related with melasma, introducing a two-sided pigmentation or darker fixes in the mid face region.<sup>3,4</sup> Various investigations have discovered confirmation connecting together poor maternal oral wellbeing, pregnancy results and dental strength of the offspring.<sup>5</sup> These may extend from preterm conveyance and low birth weight to higher danger of early caries among newborn children. Lamentably, aside from self-upkeep of oral cleanliness, pregnant ladies confront a few different boundaries in accomplishing ideal oral health.<sup>6,7</sup> These hindrances to looking for dental services incorporate absence of learning and esteem, negative oral wellbeing encounters, negative states of mind toward oral wellbeing experts and negative mentalities of dental staff toward pregnant women.<sup>8</sup> Similarly, mistaken suspicions, absence of information or experience regularly assumes a part in the aversion appeared by dental specialists in giving dental care to pregnant women.<sup>2</sup> Oral wellbeing advancement, sickness avoidance, early recognition and convenient intercession are essential angles for maternal and youngster oral health.<sup>9</sup> It is generally settled that numerous if not all standard and preventive dental techniques can be securely performed all through the time of pregnancy with specific precautions.<sup>4</sup>

## Objectives of the study

The main objective of our study is to find the oral health challenges faced by the pregnant women in Pakistan.

## METHODOLOGY OF THE STUDY:

This cross-sectional study was conducted in Allied Hospital Faisalabad during 2019 to 2020. A convenience sample of 100 pregnant women was invited to participate by a dental assistant. Surveys were administered by the dental assistant to all interested participants.

## Data collection

The survey administered was structured and contained items relating to oral health and care (including prevalence of dental problems), frequency of dental visits, barriers to seeking dental care, oral hygiene habits, perceptions of oral health, knowledge about oral health and access to dental care. Sociodemographic data including age, education, ethnicity, period of gestation, employment and household income were also collected.

The survey data were analyzed using SPSS (Statistical Package for Social Sciences Version 17.0). Descriptive statistics such as mean and standard deviation for continuous variables and frequency and percentage for categorical variables were calculated and tabulated.

## RESULTS:

We select 100 patients for our study and these are pregnant women who completed the survey. The mean age of the participants ranged from 16 to 40 years. The majority were in the age bracket of 15–34 years (Table 1).

**Table 1:** Socio-demographics and obstetric characteristics of participants (n = 100)

Characteristics	Frequency (%)
<b>Age (years)</b>	
15–34	85.9
34–54	11.2
<b>Highest qualification achieved</b>	
No qualifications	46.1
Vocational college	30.7
University	22
<b>Employment status at recruitment</b>	
Working full-time	23.1
Working part-time	17.8
Not working	55.3
<b>Average annual household income</b>	
<\$40 000	20.54
\$40 000 to less than \$80 000	22
\$80 000 to less than \$120 000	23.45

<b>Health Care Card</b>	
Yes	19.5
No	7.3
<b>Private Health Insurance</b>	
Yes	28.9
No	71
<b>Period of gestation</b>	
1st trimester	2.9
2nd trimester	33.4
3rd trimester	67.5

More than half the participants (55.2%) were not engaged in employment and 46.1% had no formal qualifications. Over half the participants (52.3%) were from low to middle income families (<\$40 000 and \$40 000 – <\$80 000) and just over a third had health care cards. These figures are fairly consistent with population data from the area which show that 53.1% have no formal qualification and 33.2% have annual household income. The majority of women surveyed (62.7%) were in their third trimester and had other children (71%). status was average to good (75.5%) with just over half reporting at least one oral health problem during their current pregnancy (Table 2). The most common oral health problems reported by the 100 participants who gave information were bleedings gums, cavities, sensitivity and 50% reported that dental problems had sometimes or often affected both what they could eat and overall health in general.

**Table 2:** Perceived oral health status of pregnant women (n = 100)

Variables	Frequency (%)
<b>Oral health status</b>	
Excellent	10.9
Good	29.5
Average	48.2
Fair	7.8
Poor	5.1
<b>Type of oral health problems</b>	
Bleeding gums	60.1
Toothache	16.9
Cavities	3.1
Loose teeth	20.2
Sensitivity	41.6
Teeth that don't look right	15.1
<b>Dental problems affected what to eat and overall health in general</b>	
Never	50.1
Sometimes	41.8
Often	8.8

**Table 3:** Dental care of pregnant women (n = 100)

Variables	Frequency (%)	95% CI
<b>When was the last time you saw a dentist?</b>		
<6 months	30.5	24.7–36.3
6 to <12 months	15.1	10.6–19.6
1 yr to <2 yrs	24.7	19.3–30.1
2 yrs to <5 yrs	17.2	12.4–22.0
>5 yrs	10.0	6.2–13.8
Never visited	2.5	0.5–4.5
<b>Barriers in seeking dental treatment</b>		
Safety concerns regarding treatment during pregnancy	31.9	21.1–42.7
Dental costs	29.2	18.7–39.7
Time constraints	29.2	18.7–39.7
Oral health not seen as a priority	20.8	11.4–30.2

Advised by antenatal care providers not to seek treatment	4.2	0.4–8.8
<b>How often do you brush?</b>		
A few times a week	1.2	0.2–2.6
Less than once a week	1.2	0.2–2.6
Once a day	27.0	21.4–32.6
Twice a day	67.2	61.3–73.1
More than twice a day	3.4	1.1–5.7
<b>Oral hygiene products used</b>		
Flouride toothpaste	98.3	96.7–99.9
Mouthwash	40.7	34.5–46.9
Dental floss	42.7	36.4–49
Sugar free gum	35.7	29.7–41.7

### DISCUSSION:

This study provides the knowledge about oral health in pregnant women in Pakistan. One of the main reasons for poor maternal oral health is the hormonal variations and dietary changes that occur during this period which puts pregnant women at a higher risk of suffering various dental problems.<sup>11</sup> This is reflected in the findings with a higher prevalence of dental problems seen in the pregnant women than the general population. Exacerbating the situation is the limited number of women that actually seek dental advice during pregnancy even when a dental problem exists.<sup>7</sup> The low uptake of dental services among pregnant women is well documented worldwide and is evident in Australia as well.<sup>12</sup> The findings from this study show that only around 30% of pregnant women are utilizing dental services in Australia which is fairly consistent with previous reports of 30% to 36% from prenatal and postnatal surveys of women living in another city in Australia (Adelaide).

### CONCLUSION:

The present study indicates that the oral health status is not appropriate among the pregnant women. On the other hand, the high prevalence of dental plaque, poor periodontal condition and unsatisfied treatment require a preventive population-based strategy with an emphasis on the improvement of the oral self-care for the pregnant women.

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