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Management of Acute Dental Pain and Oral Health Challenges among Pregnant Women in Pakistan

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Original Research Article

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ABSTRACT

Introduction: Pregnancy is a physiological state that causes a variety of changes in the mouth cavity, as well as other physiological changes throughout the female body. Some of the modifications typically seen in pregnant women include gingival hyperplasia, gingivitis, pyogenic granulomas, and other salivary alterations.
Objectives of the Study: The main objective of our study is to find the management of acute dental pain oral health challenges faced by the pregnant women in Pakistan. Because like other systems of the body oral system also face many problems during pregnancy in women.
Methodology of the Study: A cross-sectional survey of pregnant women attending the Punjab Dental Hospital, Lahore during 2020 to 2021. 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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1. 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 [1]. Gingival hyperplasia, gingivitis, pyogenic granulomas and different salivary modifications are a portion of the progressions normally saw among pregnant women [2]. The part of elevated amounts of flowing estrogen is entrenched and connected with high pervasiveness of gingivitis and gingival hyperplasia [3]. 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 [3,4]. Various investigations have discovered confirmation connecting together poor maternal oral wellbeing, pregnancy results and dental strength of the offspring [5]. 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 [6,7]. 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.8 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 [8]. Oral wellbeing advancement, sickness avoidance, early recognition and convenient intercession are essential angles for maternal and youngster oral health [9]. 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 [4,10].

1.1 Objectives of the Study

The main objective of our study is to find the management of acute dental pain and oral health challenges faced by the pregnant women in Pakistan. Because like other systems of the body oral system also face many problems during pregnancy in women.

2. METHODOLOGY OF THE STUDY

A cross-sectional survey of pregnant women attending the Punjab Dental Hospital, Lahore during 2020 to 2021. 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.

2.1 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.

2.2 Data Analysis

The survey data were analyzed using SPSS (Statistical Package for Social Sciences Version 17.0, 2008). Descriptive statistics such as mean and standard deviation for continuous variables and frequency and percentage for categorical variables were calculated and tabulated. Descriptive and inferential statistics such as the chi-square test was used to compare the profiles of pregnant women who had visited a dentist in the last six months with those who did not. The level of significance used was 0.05.

3. 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 (%)
Age (years)	
15–34	85.9
34–54	14.1
Highest qualification achieved	
No qualifications	46.1
Vocational college	30.7
University	22
Employment status at recruitment	
Working full-time	23.1
Working part-time	17.8
Not working	59.1
Average annual household income	
<$40 000	20.54
$40 000 to less than $80 000	22
$80 000 to less than $120 000	23.45
Health Care Card	
Yes	19.5
No	7.3
Private Health Insurance	
Yes	28.9
No	71
Period of gestation	
1st trimester	2.9
2nd trimester	33.4
3rd trimester	67.5

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

Variables	Frequency (%)
Oral health status	
Excellent	10.9
Good	29.5
Average	48.2
Fair	7.8
Poor	5.1
Type of oral health problems	
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
Dental problems affected what to eat and overall health in general	
Never	50.1
Sometimes	41.8
Often	8.8

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

Variables	Frequency (%)	95% CI
When was the last time you saw a dentist?		
<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
Barriers in seeking dental treatment		
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
How often do you brush?		
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
Oral hygiene products used		
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

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.

However, analysis of the individual knowledge items showed that pregnant women had inadequate knowledge about the potential impact of poor maternal oral health. Less than half the women were aware that dental decay could spread from the mother to the baby's mouth (47.5%) and that a mother's poor oral health may contribute to low birth weight (47.5%). It is also evident that some confusion exists among pregnant women regarding the appropriateness of accessing dental care both during pregnancy and early childhood. Nearly a third of pregnant women (32.5%) were unsure about the best time for a baby to have the first dental visit and 26.1% felt that dental treatment should be avoided during pregnancy unless it is an emergency (Table 3).

The results showed a significant difference in the uptake of dental services among pregnant women who had higher household income, private health insurance, received information about oral health during pregnancy and knowledge about the impact of poor maternal oral health. The influence of other socio-demographic indicators such as education and employment on dental visits was not evident. Likewise, perceived oral health status, self-reported oral health problems and accessibility to dental care were not significantly different between the groups.

4. DISCUSSION

This study provides the knowledge about oral health in pregnant women in Pakistan. One of the primary explanations behind poor maternal

oral wellbeing is the hormonal varieties and dietary changes that happen during this period which puts pregnant ladies at a higher danger of experiencing different dental problems [11]. This is reflected in the discoveries with a higher pervasiveness of dental issues found in the pregnant ladies than everybody. Compounding the circumstance is the predetermined number of ladies that really look for dental guidance during pregnancy in any event, when a dental issue exists.7 The low take-up of dental administrations among pregnant ladies is very much archived worldwide and is obvious in Australia as well [12-15]. The discoveries from this review show that just around 30% of pregnant ladies are using dental administrations in Australia which is genuinely reliable with past reports of 30% to 36% from pre-birth and post pregnancy overviews of ladies living in one more city in Australia [13-14]. The low usage of dental administrations is of genuine concern particularly considering various pregnant ladies here announced that their dental issues had impacted their eating routine and by and large wellbeing overall. Having an insufficient eating routine and helpless oral wellbeing during pregnancy can be adverse to the wellbeing and prosperity of the baby. According to this review the low take-up of dental administrations during pregnancy can be credited to various elements, one being the expense of dental administrations. The issue of cost was featured by near 30% of study members and examination investigation showed that pregnant ladies with higher family livelihoods were bound to look for dental treatment than those on lower wages [15].

One more contributing variable to the low take-up of dental administrations is the absence of mindfulness among pregnant ladies about the significance of maternal oral wellbeing. Not exactly a large portion of the ladies overviewed knew about the possible sick impacts of helpless oral wellbeing during pregnancy, which could clarify why 20% of the ladies didn't see oral wellbeing as fundamentally important [16]. Notwithstanding, most members had great information about oral cleanliness propensities which was reflected in their practices with more than 66% brushing double a day and utilizing fluoride toothpaste. The aftereffects of this concentrate likewise uncovered that pregnant ladies who counseled a dental specialist were bound to be the people who had gotten data about perinatal oral wellbeing and knew about the relationship between poor maternal oral wellbeing and antagonistic pregnancy and newborn child results.

5. CONCLUSION

According to the results of this study, the dental health of pregnant women is not good. The high frequency of dental plaque, poor periodontal condition, and unsatisfied treatment, on the other hand, necessitate a population-based preventative strategy with a focus on improving oral self-care for pregnant women.

CONSENT AND ETHICAL APPROVAL

Ethical approval was obtained from the concerned department of the hospital and ethical committee and written consent was obtained from all participants.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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