

Oral Health Knowledge and Practice of Pregnant Women at Chiniot General Hospital Korangi Karachi

Oral Health Knowledge and Practice of Pregnant

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ABSTRACT

Objective: The purpose of this study was to evaluate pregnant women's knowledge of and experiences with oral health.

Study Design: Cross-sectional observational study.

Place and Duration of Study: This study was conducted at the Chiniot General Hospital Korangi Karachi from November 2019 to July 2020.

Materials and Methods: A questionnaire was filled out by women in the postnatal ward at the Chiniot General Hospital Korangi in Karachi to evaluate their understanding of, attitudes toward, and habits related to periodontal health. Results of pregnancies were gathered from their medical files. Using SPSS software version 21.0, data was analyzed.

Results: In total, 90 expectant women agreed to take part in the data collection stage. Following the patient's history, it was discovered that 55.6% of patients were unaware of the significance of dental hygiene. Only 21.1% of the women used the recommended twice-daily oral hygiene routine, and 6.7% never cleaned their teeth.

Conclusion: Pregnant women did not maintain the necessary level of oral hygiene and avoided regular dental checkups.

Key Words: Oral Health, Knowledge, Pregnancy.

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INTRODUCTION

Effective and sufficient treatment is necessary to maintain oral and dental health for a lifetime. Pregnancy is a time when women's dental health is significantly more crucial. Pregnancy is an indication of health rather than a disease state. It is uncommon for a healthy person to experience random tooth loss. For pregnant women, the same guidelines apply. They won't have tooth loss or other dental issues if they take a few easy precautions.

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However, moms are known to have gum disease and teeth decay throughout pregnancy. Pregnant women who have poor oral health during their pregnancy may experience premature birth, low birth weight babies, pre-eclampsia, gingival tissue ulcerations, pregnancy granulomas, gingivitis, pregnancy tumours (epulis gravidarum), loose teeth, mouth dryness, and dental erosions. Pregnancy hormone fluctuations have a direct impact on gum issues and indirectly on tooth decay.^{1,2}

When a woman is pregnant, her body goes through a lot of changes and adaptations as she develops. A woman's body goes through hormonal, biochemical, and physiological changes during pregnancy as a result of which various systemic changes take place. During pregnancy, the oral cavity is also impacted by factors that affect overall health and is particularly susceptible to changes in the oral mucosa, which may lead to a variety of dental issues. Orofacial pain may result from this.³ Physiological and hormonal changes had an effect on pregnant women's overall health as well as their dental health. Oestrogen and progesterone levels that are higher encourage blood vessel dilatation and permeability, lowering immune function and making the host more susceptible to inflammation and mouth infections.^{4,5,6} However, if these changes are combined with poor oral hygiene, it may lead to dental caries, pregnancy gingivitis, and periodontitis.⁷

Pregnant women who maintain good dental health enjoy better quality of life, experience fewer

pregnancy-related issues (such as low birth weight babies, hypertension, and premature birth), and have fewer future chances of their children getting early childhood caries.⁸ Children of women with poor oral health had a five-fold increased chance of acquiring oral health issues, according to Clothier and colleagues.⁹ Mothers therefore have a crucial role in helping children establish favourable attitudes and lifelong practises connected to oral healthcare.¹⁰ The importance of maintaining good oral health during pregnancy and a pregnant woman's dental health could possibly have an impact on. It is very important to protect the dental health of infants being aware of oral health issues relating to expectant mothers increasing understanding, attitudes, and behaviors low resources for oral healthcare in developing nations like Pakistan Services for health care.¹¹ In light of this, the study's goals were to evaluate the pregnant women's knowledge, oral hygiene routines, perceptions of barriers, and attitudes toward their oral health..

MATERIALS AND METHODS

The cross-sectional study, which used a questionnaire, was conducted at CHINNIOT GENERAL HOSPITAL KORANGI KARACHI, Dental OPD from November 2019 to July 2020 with Ethical approval from Ethical Review Board SZABIST University Karachi. With written consent, the pregnant women who regularly attend antenatal clinic appointments were enrolled in this study. The sociodemographic information, which includes age, place of residence, level of education, marital status, and family economic status, was asked about during interviews and questions with study participants. They were questioned on the complaints they had raised and the need for a dentist appointment. Patients were also questioned about their gestational age and trimester of pregnancy. Medical history about any medical conditions or any complication during pregnancy were asked like gestational diabetes, gestational hypertension or any other issue during pregnancy. In the dental care unit of the Chiniot General Hospital in Karachi, dental examinations were performed by clinically qualified experts. Patients were looked at while sitting on dentist chairs. The state of oral hygiene was then assessed, along with the presence of visible calculus and plaque, gingival bleeding upon probing, the number of carious teeth present, and whether or not the tooth that the patient had been pointing at was carious. A history of trauma, any gingival inflammation (localised or widespread), extra oral swelling, and already treated, filled, removed, or RCT treated teeth were also explored. Data was analysed by using SPSS software version 21.0. Mean of the data was reported for numeric variables. Frequency and percentage were reported for nominal and categorical variables. Fisher exact test was

applied to assess the significance among appropriate variables.

RESULTS

Overall 90 pregnant women consented to participate in the data collection phase. Most of the pregnant women were in the age range of 26 to 30 years. The majority of respondents were housewives and most of them belonged to a middle socioeconomic background and had obtained undergraduate diplomas (32.2%). The majority of pregnant women (40.0%) were in their second trimester, and 35.6% were expecting their first child. In the study's participants who sought dental care, 71.1% had oral pain and 28.9% had periodontal symptoms. Despite the fact that the vast majority (88.9%) of respondents had no comorbidities. After obtaining the history from the patient general discussion regarding oral hygiene concluded that 55.6% did not know the importance of oral hygiene. Only 21.1% of the women brushed teeth twice a day (as recommended) while 6.7% never brushed their teeth. Abstentions from betelnut chewing was advised and regarding their current habits 31.1% used betel nut regularly.90% of the respondents had previous good experiences during dental visits and 55.6% felt anxious during dental check-up.

Table No. 1: Dental history

| Variable | n(%) |
|--|----------|
| Do you know importance of oral hygiene | |
| No | 50(55.6) |
| Yes | 40(44.4) |
| How many times do you brush in a day | |
| Never | 6(6.7) |
| Once a day | 65(72.2) |
| Twice a day | 19(21.1) |
| Bad dental habits | |
| None | 62(68.9) |
| Betelnut chewing | 28(31.1) |
| Anxiety during dental check up | |
| No | 40(44.4) |
| Yes | 50(55.6) |
| Previous bad experiences during dental check up | |
| No | 81(90.0) |
| Yes | 9(10.0) |
| Dental visit before pregnancy | |
| No | 49(54.4) |
| Yes | 41(45.6) |
| Reason for visit before pregnancy | |
| Periodontal procedure | 12(29.3) |
| Restorative procedure | 14(34.2) |
| general checkup | 1(2.4) |
| Surgical procedure | 6(14.6) |
| Dental pain | 8(19.5) |

Only 45.6% of the women visited the dentist before pregnancy mostly for restorative procedure (34.2%)

followed by periodontal procedure (29.3%) while dental pain before pregnancy was reported as low as 19.5% (Table No. 1).

DISCUSSION

Maintaining good oral hygiene is crucial throughout pregnancy, especially in light of new findings that link poor oral health to unfavourable pregnancy outcomes.¹² By implementing basic oral hygiene practises, it is possible to prevent periodontal disease, the most prevalent oral condition in pregnancy. The knowledge and attitudes that people have about oral health, however, have an impact on this kind of good behaviour. In order to get insight into pregnant women's oral health knowledge, attitudes, and practises. Women in this study belongs to low socio-economic status mostly. 78.9% of the participants had difficulty visiting the antenatal dental clinic during pregnancy, reasons were financial issues, low educational level, family restrictions etc. A Study conducted in Brazil reported that females with higher incomes are less likely to avoid dental treatment and services that women with less or low incomes, in that study only 28 % faced difficulty in obtaining dental health care facility. Another previous study reported that low educational level, low income and low socio economic status are all determinants that restricts the need of seeking dental assistance, it may also increase fear for dental treatments and increase caries severity thus resulting in tooth decay and severe dental pain.¹³ Upon oral examination many components were examined. Firstly, the oral hygiene status which showed good hygiene in 24 women (26.7%) followed by bad oral hygiene in 66 women (73.3%). After obtaining the history from the patient's general discussion regarding oral hygiene concluded that 55.6% did not know the importance of oral hygiene maintenance during pregnancy. Only 21.1% of the women brushed teeth twice a day (as recommended) while 6.7% never brushed their teeth. 31.1% used betel nut regularly which further makes their oral hygiene objectionable. Overall lack of awareness about proper oral hygiene maintenance and importance of good oral health was observed. In some other previous studies people that have high educational status know the importance of preventive health services and they seek them more frequently and have lesser general and oral diseases as compared to the people with less awareness and low educational status. Similarly studies also reported that low Socio-economic status of a population may results in higher rates of dental diseases and high prevalence of dental pain among women during pregnancy. A previous study conducted in Multan concluded that dental caries or even the periodontal diseases are not associated with educational level, income or age.¹⁴ There is a

slightly low chance of developing dental caries in females who regularly visits for the antenatal checkups. Lack of awareness about Oral health and pregnancy and lack of visits to antenatal clinics for Oral health evaluation is something that most of females are not doing properly.¹⁴ Due to change in hormones or eating practices and attitude, the pregnant females are at higher risk of developing oral diseases that influence quality of life in several ways like oral or dental pain, cavity formation (dental caries), gingivitis, periodontitis etc. Most of the pregnant ladies ignore their oral health during pregnancy because of lack of awareness, misconception, inaccessibility to healthcare services, costly treatment, advice of mother in law and family and fear that fetus development could may get affected. Most pregnant women (96%) did not receive any information from their gynecologist regarding the effect of dental health on pregnancy. Other Australian and European investigations supported this conclusion.¹⁵

Scaling, root planning, restorations, extractions are safe to perform during the second trimester. There should be a proper and comprehensive assessment of oral health during pregnancy but this matter is overlooked and neglected. According to a study 22-34% of U.S pregnant women visited dentist for consultation during their pregnancies. Pregnancy is a period in which females must be motivated to make healthier choices, many barriers came across which restrict the females from dental treatments during pregnancy which includes lack of proper and adequate practicing standards and SOPs, improper dental insurance, costly dental treatments, myths about dental treatments and health of mother and the developing fetus. Physicians and dentists should collectively make efforts to address the oral issues and thus reducing them, this can be achieved by early diagnosis and early management of oral diseases before they may get worsen. Oral health care awareness programs and educational campaigns must be designed to focus not only pregnant females but also prenatal health care experts and oral health care providers.

CONCLUSION

Pregnant women did not maintain the necessary level of oral hygiene and avoided regular dental checkups. If the gynecologist explains the value of oral health and how it relates to overall health, it will be extremely helpful for pregnant women's oral hygiene habits and regular dental vis.

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REFERENCES

- Dörtbudak O, Eberhardt R, Ulm M, Persson GR. Periodontitis, a marker of risk in pregnancy for preterm birth. *J Clin Periodontol* 2005;32(1):45-52.
- American Academy of Pediatric Dentistry. Guideline on perinatal and infant oral health care. *Pediatr Dent* 2016;38(6):150-3.
- Shivakumar KM, Patil S, Kadashetti V, Suresh KV, Raje V. Prevalence of orofacial pain in pregnant women: A cross-sectional study. *Ind J Multidisciplinary Dentistry* 2017;7(2):101.
- Krüger MS, Lang CA, Almeida LH, Bello-Corrêa FO, Romano AR, Pappen FG. Dental pain and associated factors among pregnant women: an observational study. *Maternal and Child Health J* 2015 Mar;19:504-10.
- Shivakumar KM, Patil S, Kadashetti V, Suresh KV, Raje V. Prevalence of orofacial pain in pregnant women: A cross-sectional study. *Ind J Multidisciplinary Dentistry* 2017;7(2):101.
- Togoo RA, Al-Almai B, Al-Hamdi F, Huaylah SH, Althobati M, Alqarni S. Knowledge of pregnant women about pregnancy gingivitis and children oral health. *Eur J Dentistry* 2019;13(02):261-70.
- Enabulele J, Ibhawoh L. Resident obstetricians' awareness of the oral health component in management of nausea and vomiting in pregnancy. *BMC Pregnancy and Childbirth* 2014;14(1):1-5.
- Buerlein JK, Horowitz AM, Child WL. Perspectives of Maryland women regarding oral health during pregnancy and early childhood. *J Public Health Dentistry* 2011;71(2):131-5.
- Clothier B, Stringer M, Jeffcoat MK. Periodontal disease and pregnancy outcomes: exposure, risk and intervention. *Best Practice Research Clinical Obstetrics Gynaecol* 2007;21(3):451-66.
- Ramazani N, Zareban I, Ahmadi R, ZadSirjan S, Daryaeian M. Effect of anticipatory guidance presentation methods on the knowledge and attitude of pregnant women relative to maternal, infant and toddler's oral health care. *Journal of Dentistry (Tehran, Iran)* 2014;11(1):22.
- Harchandani N. Oral health challenges in Pakistan and approaches to these problems. *Pak Oral Dent J* 2012;32(3).
- 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 Evidence-Based Healthcare* 2011;9(2):122-47.
- Oliveira BH, Nadanovsky P. The impact of oral pain on quality of life during pregnancy in low-income Brazilian women. *J Orofacial Pain* 2006; 20(4).
- Azfar M, Khan I, Sheikh AA, Baig A, Raza SA, Hanif M, et al. Frequency and factors associated with dental caries in pregnant females visiting antenatal clinic of public sector hospital of Karachi, Pakistan. *J Dow Univ Health Sciences (JDUHS)* 2020;14(1):4-10.
- George A, Johnson M, Duff M, Ajwani S, Bhole S, Blinkhorn A, Ellis S. Midwives and oral health care during pregnancy: perceptions of pregnant women in south-western Sydney, Australia. *J Clinical Nursing* 2012;21(7-8):1087-96.