

# Importance of Preventive Dental Care During Antenatal Period in Pregnant Women: A Pakistani Perspective

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Dental caries and periodontal diseases are amongst the most common non-communicable diseases globally<sup>1</sup>. According to the World Health Organisation (WHO), more than 3.5 billion individuals suffer from one of the many oral diseases, with an economic burden exceeding a total of \$387 in both public and private health sectors<sup>2</sup>. According to the Centers for Disease Control and Prevention, 60-75% of pregnant women suffer from gingivitis, which is mainly due to already poor oral health and hormonal changes<sup>3</sup>.

Pregnancy is a physiological state that affects many organs of the human body, including the oral cavity<sup>3</sup>. During the gestational period, alterations are observed in the local environment of the oral cavity. Oral health during the gestational period is of paramount significance as dental pathologies can have negative consequences for both the mother and child<sup>3</sup>.

Dental diseases during the gestational period are not only responsible for affecting the mother's oral health but can also lead to negative consequences for the overall health and course of the pregnancy. Various studies have led to conclusions that oral diseases during gestation may lead to negative pregnancy outcomes such as gestational diabetes, greater risk of preterm birth, reduced birth of a child, preeclampsia, and retarded fetal growth<sup>4</sup>. Such findings pave the way for the undermined and understudies' importance of oral health towards mother and child health outcomes.

The fetoplacental circulation forms the vital connection of blood supply between the fetus and mother. This blood circulation along with saliva provides a modality for the transmission of maternal oral infections to the developing fetus<sup>3</sup>. The transportation of various microbes including bacteria is potentially responsible for the increased risk of causing early childhood caries (ECC) due to colonization of such cariogenic bacteria<sup>3</sup>.

During the gestational period, oral health is often overlooked by pregnant women and their primary physicians despite the high prevalence of dental disease and its impact. Preventing and treating oral illnesses during pregnancy is essential due to their high prevalence and influence on the health of both the mother and the unborn child. A recent systematic review and meta-analysis estimates that Pakistan has a prevalence of dental caries of about 60%, higher than the global average of 44%<sup>5</sup>.

Pregnant women in Pakistan face various obstacles while trying to receive dental care. Some of these obstacles are caused by personal characteristics, such as a lack of understanding, information, or drive; fear or worry; a low sense of urgency or need; cultural norms or beliefs; limited resources; or trouble getting about<sup>6</sup>. Some of these obstacle's stem from issues with the health system, like the undersupply or unequal distribution of oral health professionals, the lack of coordination or integration with prenatal care services, the lack of funds, supplies, or equipment, or the lack of policies or guidelines for oral health care during pregnancy. Clinical implementation can effectively overcome myriad of obstacles faced by pregnant women for oral health care in Pakistan. Targeted educational programs and community-based initiatives can be of vital importance.

Integration of oral health care into prenatal care services is a strategy that aims to provide comprehensive

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and coordinated care for pregnant women and their children by incorporating oral health education, assessment, and referral into routine prenatal care visits. This strategy can facilitate early detection and management of oral diseases, prevent complications, and promote healthy behaviors that can improve oral health and general health for both the mother and the child.

Studies show that oral health care in prenatal care improves the oral health of pregnant women and their children as it boosts their awareness, knowledge, and attitudes about oral health during pregnancy<sup>3</sup>. Furthermore, it also increases their use of oral health services and lowers the risk of bad pregnancy outcomes due to oral diseases. Policies and interventions should focus on increasing knowledge and awareness among pregnant women and health care providers for integration of oral health care during perinatal care. Moreover, provision of referral for oral health care should also be sought by health care providers.

Therefore, we urge the relevant authorities and stakeholders in Pakistan to take action to implement policies and programs that can support the integration of oral health care into prenatal care services in Pakistan. This can be achieved by providing adequate funding, training, and resources for oral health care providers and prenatal care providers; developing guidelines and protocols for oral health assessment and referral during pregnancy; educating pregnant women and their families about oral health and its impact on pregnancy; and conducting research and evaluation to monitor and improve the effectiveness and outcomes of such integration. Oral health care is safe during pregnancy as necessary information should be provided to the pregnant women. Regular brushing with fluoridated toothpaste is advised along with the use of dental floss<sup>3</sup>. Elective procedures should be delayed and performed until after pregnancy, however, in case of emergencies, the second trimester is safest for dental procedures<sup>3</sup>.

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#### **CONFLICT OF INTEREST**

The authors declare that they have no conflicts of interest.

#### **AUTHORS CONTRIBUTIONS**

All authors contributed equally.

#### **REFERENCES**

1. Wolf TG, Cagetti MG, Fisher J-M, Seeberger GK, Campus G. Non-communicable Diseases and Oral Health: An Overview. *Frontiers in Oral Health*. 2021;2. <http://doi.org/10.3389/froh.2021.725460>
2. Jain N, Dutt U, Radenkov I, Jain S. WHO's global oral health status report 2022: Actions, discussion and implementation. *Oral Dis*. 2023. doi: 10.1111/odi.14516.
3. <https://www.cdc.gov/oralhealth/publications/features/pregnancy-and-oral-health.html>
4. Nannan M, Xiaoping L, Ying J. Periodontal disease in pregnancy and adverse pregnancy outcomes: Progress in related mechanisms and management strategies. *Frontiers in Medicine*. 2022;9. <https://doi.org/10.3389/fmed.2022.963956>
5. Siddiqui AA, Alshammary F, Mulla M, Al-Zubaidi SM, Afroze E, Amin J, et al. Prevalence of dental caries in Pakistan: a systematic review and meta-analysis. *BMC Oral Health*. 2021;21(1):450. <https://doi.org/10.1186/s12903-021-01802-x>
6. Sattar FA KA. Prenatal Oral health care and dental service utilization by pregnant women: A survey in four maternity centers of gulshan town, district east, karachi. *J Pak Dent Assoc*. 2020;29(2):60-65. <https://doi.org/10.25301/JPDA.292.60>

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