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BARRIERS TO UTILIZATION OF ORAL HEALTH CARE SERVICES BY PREGNANT WOMEN: A QUALITATIVE STUDY FROM KOZHIKODE DISTRICT, KERALA

Dentistry

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ABSTRACT

Background: Pregnancy is a unique physiological state wherein women experience several hormonal, physical, and psychosocial changes, and the oral cavity is no exception. Common oral health problems in pregnant women include dental caries, gingivitis, periodontal disease, tooth mobility, pyogenic granuloma, gingival hyperplasia, and salivary alterations. These conditions, if left untreated, can adversely affect both maternal and fetal health. Despite the importance of maintaining optimal oral health during gestation, the utilization of oral health care services by pregnant women remains low. This study aimed to identify barriers to oral health care utilization among pregnant women in Kozhikode district, Kerala. **Methods:** A qualitative study using In-depth Interviews (IDIs) was conducted following the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist. A total of 40 pregnant women, recruited from both government and private hospitals in Kozhikode district, participated in the study. An interview guide was pilot tested prior to data collection, and interviews were continued until data saturation was achieved. Audio recordings and field notes were made for each interview, transcribed, and thematically analyzed. **Results:** Six major barriers emerged from the thematic analysis: (1) Lack of awareness regarding oral health problems in pregnancy, (2) Lack of awareness of the correlation between poor oral health and adverse pregnancy outcomes, (3) Misconceptions about dental treatment during pregnancy, (4) Lack of family support, (5) Reliance on home remedies and social media, and (6) Traveling difficulties. **Conclusion:** Identification of these barriers is crucial to developing targeted interventions and policies aimed at improving oral health care utilization among pregnant women in Kerala. The findings offer baseline data for future interventional studies and for policymakers to design maternal oral health programs.

KEYWORDS

Qualitative study, Oral Health, Pregnant women, Dental Health, Barriers, Kerala

INTRODUCTION

Pregnancy is a unique physiological condition in which all systems of the human body undergo significant hormonal, psychological and behavioural alterations that may negatively impact oral health (1, 2). These changes in pregnant women can potentially cause inflammation of gingival tissues, increased susceptibility to dental caries, and other periodontal conditions (1, 3). The interplay between maternal oral health and pregnancy outcomes has been well highlighted in recent times, where evidence has established a possible relationship between untreated periodontal diseases and adverse fetal outcomes such as preterm birth and low birth weight (3,4).

Despite the importance of oral health care during pregnancy being well-documented, dental service utilization remains suboptimal among pregnant women in many populations, including India (5,6). It is documented that factors of unawareness, misconception towards dental treatments, and economic or sociocultural barriers have caused this underutilization (7,8). Even in Kerala, the better literacy and other health indicator-rich states in India, anecdotical evidence shows that the pregnant women in such areas usually do not go for the desired oral health care at the proper time (6,9).

This gap in service utilization is concerning, given that maintaining good oral health during pregnancy not only improves maternal well-being but may also prevent detrimental effects on the fetus (4,9). Early detection and management of oral conditions can avert complications that could exacerbate the strain on healthcare systems and families (5,10). Thus, it is important to focus on the qualitative exploration of barriers that hinder pregnant women from seeking dental care. Such an approach captures the contextual nuances of women's lived experiences-ranging from individual beliefs to family-level influences-offering insights that quantitative data alone cannot provide (8).

Therefore, this study attempts to identify the sociocultural, psychosocial, and practical barriers in the utilization of oral health care among pregnant women in Kozhikode district, Kerala. By ascertaining the key themes from in-depth interviews, the findings can form a basis for context-specific interventions and policies to enhance oral healthcare attendance during pregnancy and ultimately improve maternal and fetal health outcomes (5,9,10).

MATERIALS AND METHODS

Study Design

A qualitative research design, using In-depth Interviews (IDIs), was adopted to explore the complex psychosocial factors influencing the utilization of oral health care services by pregnant women. This approach was chosen to provide a nuanced understanding of participants' beliefs, attitudes, and lived experiences.

Study Setting And Participants

The study was conducted in Kozhikode district of Kerala, India. Pregnant women attending both government and private hospitals in the district were recruited. Purposive sampling was used to capture a wide range of perspectives, including diverse socio-economic and educational backgrounds.

Inclusion criteria:

1. Currently pregnant women (any trimester) attending antenatal clinics in Kozhikode.
2. Willingness to participate and provide informed consent.

Exclusion Criteria:

- Pregnant women who declined to participate in the in-depth interviews.

Data Collection

An interview guide was developed and pilot tested on a small subset of participants to ensure clarity and relevance. The final guide included open-ended questions about participants' oral health perceptions, experiences in seeking (or not seeking) dental treatment, and potential social or familial influences.

A total of 40 in-depth interviews were conducted over a period of three months. Interviews were carried out in a private setting within hospital premises, ensuring convenience and privacy for participants. Each interview lasted approximately 20 to 30 minutes. All interviews were audio recorded with participant consent, and field notes were taken to document non-verbal cues and environmental factors.

Ethical Considerations

The study protocol was approved by the Institutional Ethics Committee (IEC no : PMS/IEC/2022/REGULAR/APR/50). Participant information sheets and informed consent forms were provided in the local language (Malayalam). Confidentiality was guaranteed, and participants had the right to withdraw from the study at any point without any repercussions.

Data Analysis

All recorded interviews were transcribed verbatim in Malayalam and later translated into English. Manual coding was done independently by two researchers to ensure reliability. Any discrepancies were resolved through discussion and consensus.

A thematic analysis approach was used to generate initial codes, subthemes, and major themes. Data saturation was deemed achieved when no new information or themes emerged from subsequent interviews. Participants were contacted via telephone to clarify any ambiguities during the analysis phase.

RESULTS

This section presents the qualitative findings on the barriers influencing oral health care utilization among pregnant women in Kozhikode district. The results are organized into major themes and subthemes derived from the thematic analysis. In addition, two figures are provided to visually represent the study flow and the thematic framework of barriers.

Overview Of Findings

From the 40 in-depth interviews, six major barriers were identified:

1. Lack of awareness regarding oral health problems during pregnancy
2. Lack of awareness of the correlation between poor oral health and pregnancy outcomes
3. Misconceptions regarding the effect of dental treatment on pregnancy
4. Lack of family support
5. Use of home remedies and reliance on social media
6. Traveling difficulties

Many participants reported experiencing at least one oral health issue such as dental caries, bleeding gums, or tooth mobility during pregnancy. However, misconceptions and a paucity of reliable information contributed significantly to suboptimal service utilization.

Detailed Thematic Findings

A large proportion of interviewees noted that they considered oral health problems—like mild tooth pain or bleeding gums—"normal" during pregnancy. They perceived these conditions as transient and preferred to delay dental consultations until after delivery. In many cases, the lack of credible information about pregnancy-specific oral health needs compounded this belief. Furthermore, only one participant demonstrated awareness that poor oral health could adversely affect the baby, indicating an overall dearth of knowledge about the risks associated with untreated oral conditions.

A second overarching theme was the widespread misconceptions surrounding the safety of dental procedures in pregnancy. Concerns ranged from fear of adverse effects of anesthesia and painkillers on the fetus to apprehensions about drug interactions with antenatal medications.

Some participants believed that no dental treatment should be undertaken before five months of pregnancy or during the final trimester. Such misconceptions led many women to self-manage dental pain with home remedies, often with the encouragement of family members.

Family and social influences played a pivotal role in shaping attitudes. Several respondents mentioned that their relatives discouraged them from seeking dental treatment, citing potential harm to the unborn child. Consequently, pregnant women often deferred dental visits, resorting instead to home-based interventions such as saltwater gargles or topical application of oils.

Social media also emerged as a significant source of misinformation. Participants who referred to platforms like YouTube frequently found incomplete or misleading guidance, thereby reinforcing negative attitudes toward professional dental care.

Lastly, practical barriers such as traveling difficulties, especially for women in later stages of pregnancy, posed a challenge. Although most interviewees expressed an understanding of the importance of regular dental check-ups, discomfort during travel or lack of reliable transport deterred them from scheduling appointments.

Figures

Figure 1. Bar Chart:

Displays the percentage distribution of major barriers to oral health care during pregnancy.

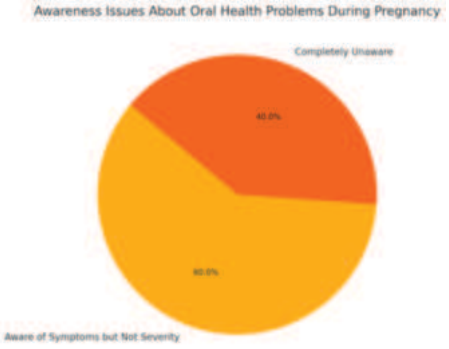

Figure 2. Pie Chart:

Highlights awareness issues about oral health problems during pregnancy.

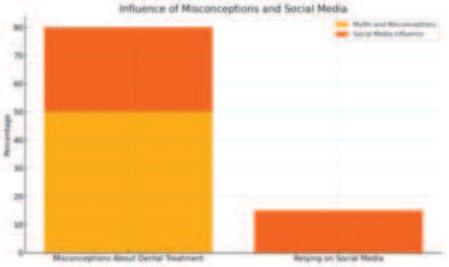

Figure 3. Stacked Bar Chart:

Compares the influence of misconceptions about dental treatment and reliance on social media.

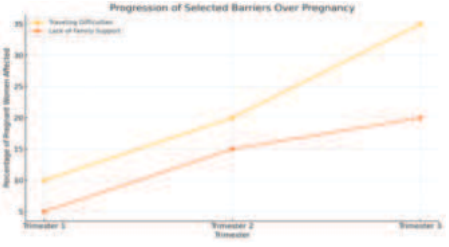

Figure 4. Line Chart:

Shows the progression of traveling difficulties and lack of family support over pregnancy trimesters

DISCUSSION

The present qualitative study delineates six major barriers that inhibit oral health care utilization among pregnant women in the Kozhikode district of Kerala. These include the lack of knowledge about pregnancy-related oral health requirements, limited understanding of how oral health problems may be related to adverse pregnancy outcomes, misconceptions related to the safety of dental interventions, lack of support from their family, home remedies and social media, and traveling difficulties.

Our findings are in line with previous qualitative studies that

highlighted similar sociocultural barriers, including myths concerning drug interactions and fetal damage, which dissuade pregnant women from seeking timely dental care (11,12). In keeping with Bahramian et al. (11), many of the pregnant women in this study were afraid or unwilling to seek professional dental care based on unverified information and family advice against intervention. In some cases, respondents only went to a dentist after delivery, similar to the delays in seeking preventive care documented by Rocha et al. (12).

Information on oral health issues remains one of the core challenges. Although many respondents reported being aware of basic oral health issues, only a few were knowledgeable about the implications of poor oral hygiene on pregnancy outcomes. The above gap reiterates the findings by Jessani et al. (13). These authors noted that targeted education plays a crucial role in influencing health-seeking behaviors among pregnant women. Incorporating oral health education into routine antenatal counseling may help dispel misconceptions and ensure pregnant women become better aware of the safety and necessity of dental procedures during pregnancy (14,15).

Family influences and cultural beliefs form the second significant theme that magnifies pregnant women's fears. Participants often mentioned that family members told them to avoid "unnecessary" treatments during pregnancy, thereby reinforcing the idea that dental interventions are dangerous. Such intergenerational beliefs, if not challenged, may perpetuate harmful practices such as relying solely on home remedies, as also documented in other regions (11,12). Boggess et al. (16) said that a delay or lack of dental health care could raise the risk of serious maternal morbidity, which should put more emphasis on timely dental interventions.

There are also practical constraints like transportation challenges that cannot be ignored. Inability to find a comfortable mode of transport, especially in later stages of pregnancy, or even inability to find cheap transport, would further discourage the pregnant woman from visiting a dentist for either preventive or routine check-ups. This finding concurs with Garcia et al. (17), who indicated logistical constraints as a major constraint in dental visitation, particularly for vulnerable groups.

The results point to multifaceted approaches. Policymakers and healthcare administrators should consider adopting integrated models of care—wherein antenatal clinics collaborate closely with dental professionals, and oral health education is prioritized throughout pregnancy (8,14). Tailored community-based interventions, including mobile dental units or closer-to-home services, could alleviate travel-related burdens (18). Such interventions, coupled with targeted messaging campaigns that dispel myths, might substantially enhance oral healthcare attendance and ultimately improve both maternal and fetal health outcomes.

CONCLUSION

Major barriers identified in this qualitative study include lack of awareness about pregnancy-specific oral health needs, misconceptions about the safety of dental treatment, inadequate family support, reliance on home remedies and social media, and traveling difficulties. These findings underscore the importance of targeted educational interventions, policy reforms, and supportive familial and social environments to improve oral health care utilization among pregnant women in Kerala. Designing antenatal programs that integrate oral health education and providing accessible dental services can significantly mitigate these barriers, ultimately promoting better maternal and fetal health outcomes.

Implications For Practice And Policy

- **Research Implications**: The themes identified here can serve as baseline data for designing interventional and educational programs targeting pregnant women's oral health in Kerala.
- **Policy Implications**: Policymakers can leverage these findings to develop community-based oral health initiatives, integrate oral health education into antenatal care packages, and introduce guidelines for safe dental practice during pregnancy.

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Conflict Of Interest

The authors declare no conflict of interest.

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