

## Awareness, Attitude and Practices of Gynecologists Regarding Oral Diseases in Expectant Mothers

<sup>1</sup>Dr. Rita Nayak, <sup>2</sup>Dr. Dharmpal Hada

<sup>1</sup>M.S(Gynaecologist), Assistant professor, Department of Gynaecologist, Zydus Medical College and Hospital, Dahod, Gujarat

<sup>2</sup>(B.D.S, M.D.S) Orthodontist, Associate professor, Department of Dentistry Zydus Medical College and Hospital, Dahod, Gujarat

**Corresponding Author:** Dr. Dharmpal Hada

### Abstract:

**Aim-** Oral diseases can make pregnancy and childbirth more difficult, and this can also have an impact on the baby's health. Such issues can be avoided if dentists and gynecologists work together in a well-coordinated interdisciplinary approach. So, the study was aimed to evaluate the awareness, attitude, and practice of gynecologists regarding oral disease prevention in expectant mothers.

**Material and Method-** In Dahod district, a cross-sectional study was performed by using a standardized questionnaire that had been pre-designed, pilot tested and distributed among gynaecologists. The questionnaire asked about dental caries, gingivitis, and malocclusion risk factors, attitudes toward regular dental visits, the position of gynecologists, and their desire to be a part of an interdisciplinary approach to prevent oral diseases. The participants were given enough time to complete the survey. SPSS 23.0 software was used to create the descriptive statistics.

**Results-** Most of (85.5%) participants identified poor oral hygiene as a risk factor for dental caries and maximum (93.9 %) accepted referral their patients to dentists. Just 68.7% of participants examined their patients' oral cavities, and almost half of those surveyed said they would refer their patients to a dentist during the first trimester.

**Conclusion-** Gynecologists appear to have a good understanding of oral diseases. Their attitudes regarding the prevention of oral diseases were positive, but their practice in this area could really need some improvement.

**Key words:** Expectant mothers, Gynecologists, Oral problems.

### Introduction:

Pregnancy is an important time in a woman's life, marked by complex hormonal changes in the body that result in visible changes in the oral cavity. Gingivitis during pregnancy, periodontitis, tooth mobility, dental caries, and benign gingival lesions all are possibilities during pregnancy. (1) Pregnant women are a category of people who need extra support from health care providers when it comes to their oral health.

Pregnant women are more vulnerable to periodontal disease due to female reproductive hormonal changes. Periodontal disorder has been linked to negative pregnancy outcomes such as premature birth and low birth weight infants in a few studies. (2,3) Apart from reducing the risk of adverse pregnancy outcomes, maintaining good oral health is critical during pregnancy as women may be more driven to make health changes. It also benefits the mother's and infant's overall health. (4)

In a study Amin and Shetty (5), observed that pregnant women had poor oral health as compared to their peers of the same generation. Another research mentioned that 76.10 % of pregnant women had some oral problems, but only 31% of them went to the dentist. (6) Pregnant women poorly utilize the dental services. (7) Gynecologists see patients more often than other medical practitioners, so they play an important role in women's health, particularly for pregnant women. Gynecologists may assist in overcoming potential obstacles to an oral examination, such as waiting times, distance, and health practitioners' negative attitudes. (8)

A few studies have looked at gynecologists' knowledge, attitude, and practice when it comes to preventing oral diseases in pregnant women. (9-12) However, people's health attitudes and behaviors are influenced by their values and cultural backgrounds. As a result, our aim was to assess the awareness, attitude, and practice of gynecologists in Dahod district regarding oral disease prevention in expectant mothers.

## Material and Method:

In Dahod district, a cross-sectional study was performed by using a standardized questionnaire that had been pre-designed, pilot tested and distributed among gynaecologists. All of the participants gave their written informed consent voluntarily.

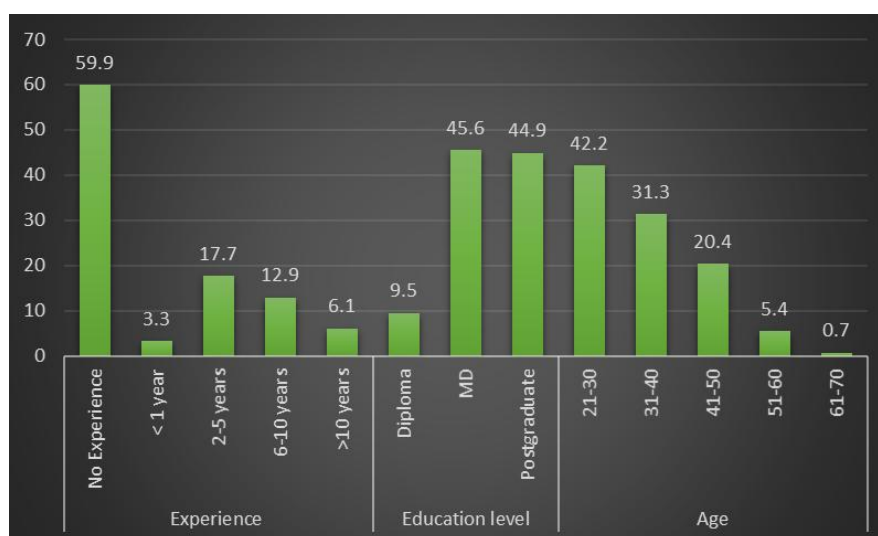
**Research tool-** Eight questions were included in a standardized questionnaire. It asked for demographic information like the participants' age, gender, specialization, and number of years in practice. The questions were designed to elicit information about gynecologists' awareness of various risk factors for dental caries, gingivitis, and malocclusion, as well as their attitudes toward regular dental visits, their position as gynecologists, and their desire to participate in an interdisciplinary approach to prevent oral diseases. Some questions were elicited to know about gynecologists' attitudes toward avoiding oral diseases, if they conducted oral examinations on their patients, if they recommend their patients visit the dentist and, if so, in which trimester. A pilot study was conducted to test the validity of the questionnaire as planned.

**Pilot study-** Thirty participants were chosen at random from a pool of gynecologists in Dahod district to participate in the pilot study. Before giving their consent to participate in this research, subjects were briefed on the study's intent and assured of confidentiality. Self-administered questionnaires were distributed and completed. Gynecologists were also asked to comment on the instrument's clarity and applicability. They were asked to make recommendations. Their feedback was used to improve the questionnaire in a positive way. The data was subjected to the Cronbach's alpha test to ensure the questionnaire's internal accuracy. Cronbach's alpha was found to be 0.83 (83%) which indicates a high level of reliability.

**Administration of Survey-** The research included all practicing gynecologists who were either in academia or practice and/or both in the Dahod district limits. This included all faculty, postgraduate and diploma students in colleges' Gynecology Departments, as well as all private practice gynecologists and gynecologists employed in government hospitals. The principal of medical college granted permission to meet and conduct the report. All of the participants were given questionnaires. The information gathered was compiled and fed into an Excel sheet for further review in IBM SPSS 23.0.

## Results:

The research enlisted the participation of 110 gynecologists. The majority of the participants (42.2%) were between the ages of 21 and 30. There were only Females participants. The bulk of the participants (45.6%) had earned a master's degree. Approximately 60% of the subjects had no prior practice experience outside of the classroom. Figure 1 shows additional demographic info.



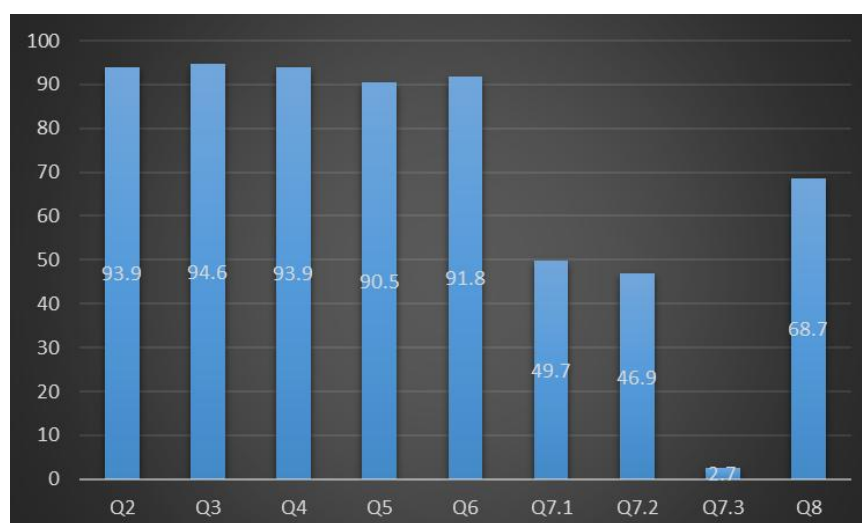
**Figure 1: Demographic details of study participants.**

Table 1 shows the knowledge about risk factors for the most common oral diseases. The vast majority of gynecologists (85.5%) correctly stated that bad oral hygiene is a risk factor for dental caries, and 83.6 % of the participants correctly stated that frequent sugar consumption is the cause.

**Table 1: Distribution of study subjects according to awareness of risk factors for the oral diseases (Q1)**

Risk Factors	Dental Caries		Gingivitis		Malocclusion	
	n	%	n	%	n	%
Female	51	46.3	23	21.8	25	22.7
Anatomy of Oral Cavity	57	51.8	37	33.6	58	52.7
Family tendency	50	45.5	35	31.8	52	47.3
Frequency of sugar intake	92	83.6	43	39.1	21	23.1
Bottle feeding	84	76.4	39	35.5	58	52.7
Breast feeding	48	43.6	21	19.1	28	25.5
Non-nutritive sucking habits	55	50	37	33.6	56	50.9
Poor oral hygiene	94	85.5	85	77.3	34	30.9
Malpositioned teeth	63	57.3	42	38.2	-	-

A total of 93.9 percent of people believe that visiting the dentist on a regular basis is necessary (Q2). The majority of participants (94.6%) agreed that gynecologists play an important role in the prevention of oral diseases (Q3). Approximately 93.9 percent of participants recommend a dentist to their patients (Q4). The interdisciplinary approach piqued the interest of 90.5 percent of the participants (Q5). The majority of gynecologists (91.8 percent) expressed an interest in learning more about how to avoid oral diseases (Q6). Nearly half of the participants advised their patients to see a dentist during the first trimester of pregnancy (Q7). Almost all gynecologists (69%) said they conduct an oral examination on their patients (Q8) (Figure 2).



**Figure 2: Participants responses to attitude and practice to prevent oral diseases.**

## Discussion:

During pregnancy, the mother's body undergoes a variety of changes due to the surge of hormones. Gingivitis, gingival hyperplasia, pyogenic granuloma, and salivary gland changes are among the oral changes. Preeclampsia (13), fetal immune response (14), and preterm birth (15) have all been linked to oral conditions and pregnancy cohort studies as negative outcomes. (16) Dentists, unlike gynecologists, are not part of India's primary health care delivery system, with the exception of a few centers. As a result, gynecologists will fill a void in the health-care system. Pregnancy gingivitis, benign oral gingival lesions, tooth mobility, tooth loss, dental caries, and periodontitis are all symptoms of hormonal changes during pregnancy. Bad oral hygiene has a detrimental effect on one's overall health and labor. Gynecologists are in a unique position to provide pregnant women with oral health information and referral services. This necessitates good knowledge, a positive attitude, and good oral hygiene practices on their part. Long standing hours, for example, would be reduced as a result of this.

Females, young doctors with a master's degree (MD), and gynecologists with 2 to 5 years of experience were the most common participants in our research. Previous research has come up with similar results. (13,14) Dental caries was caused by a combination of increased sugar consumption and poor oral hygiene. In previous studies, approximately 80% of gynecologists were aware of the fact, while in our research, slightly more (85%) participants were aware of the fact. According to 77.6% of participants, poor oral hygiene is the most common cause of gingivitis. This finding is consistent with a previous study (14), in which participants believed malocclusion was caused by a variety of factors like tooth position, bottle feeding, and nonnutritive sucking behaviors. In the current research, slightly more than half of the participants correctly identified these risk factors. A larger number of people said bottle feeding is a risk factor in a previous study. (14) The findings revealed that gynecologists have a clear understanding of the risk factors for common oral diseases. It's inspiring, and understanding is the first step toward adopting healthier habits.

According to most of (93.9 %) the participants, regular dental visits are critical for preventing oral diseases. Another study found a slightly higher percentage (95.7 percent). (15) Just 35% of participants, on the other hand, recommended a dental examination. (16) More than 90% of gynecologists are aware of and understand their role in oral disease prevention. The fact that gynecologists are willing to take an interdisciplinary approach to treating oral issues is an important and optimistic finding from this research. In terms of willingness to refer their patients to dentists, they shared a constructive outlook (93.9 percent). According to previous surveys, this mindset ranged from 70% to 95.7 %. (14,15,17,18) More than 65 % of participants said they examined their patients' oral cavities, which is a significant improvement over another study in which just 38 % of participants said they examined their patients' oral cavities. (15) The dental operation is best done in the second trimester. When compared to 92.6 percent of the subjects in another study who were aware of this reality, less than half of gynecologists were aware of it. (18) Participants in this study, like those in another (19), asked for more information on this subject. The oral health-related knowledge of gynecologists was not comprehensively assessed, which is one of the limitations of the study. This study focused only on the gynecologists practicing in a semi-urban area. Thus, we recommend that future studies may include representation from both urban and rural areas. Further qualitative studies need to be conducted to get more insights into the attitudes of gynecologists in the prevention of oral diseases.

## Conclusion:

Overall, gynecologists have a strong understanding of oral diseases, and their behaviors are right, but their preventive methods need to be improved through an interdisciplinary approach. Awareness implementation in day-to-day practice seems to be missing. The desire to learn more must be valued and continuing medical education programs must be developed.

## References:

1. American College of Obstetricians and Gynecologists Women's Health Care Physicians, Committee on Health Care for Underserved Women. Committee Opinion No 569: Oral health care during pregnancy and through the lifespan. *Obstet Gynecol* 2013; 122:417-22.

2. Lopez NJ, Da Silva I, Ipinza J, Gutiérrez J. Periodontal therapy reduces the rate of preterm low birth weight in women with pregnancy-associated gingivitis. *J Periodontol* 2005;76:2144-53.
3. Mannem S, Chava VK. The relationship between maternal periodontitis and preterm low birth weight: A case-control study. *Contemp Clin Dent* 2011;2:88-93.
4. Silk H, Douglass AB, Douglass JM, Silk L. Oral health during pregnancy. *Am Fam Physician* 2008;77:1139-44.
5. Amin R, Shetty P. Oral health status during pregnancy in mangalore. *Nitte Univ J Health Sci* 2014;4:114-7.
6. Sajjan P, Pattanshetti JI, Padmini C, Nagathan VM, Sajjanar M, Siddiqui T. Oral health related awareness and practices among pregnant women in Bagalkot District, Karnataka, India. *J Int Oral Health* 2015;7:1-5.
7. Shenoy R, Chacko V. Utilization of dental services due to dental pain by pregnant women in India: A qualitative analysis. *J Interdiscip Dent* 2013;3:18-20.
8. Bamanikar S, Kee LK. Knowledge, attitude and practice of oral and dental healthcare in pregnant women. *Oman Med J* 2013;28:288-91.
9. Baseer MA, Rahman G, Asa'ad F, Alamoudi F, Alblawi F. Knowledge, attitude and practices of gynecologists regarding the prevention of oral diseases in Riyadh city, Saudi Arabia. *Oral Health Dent Manag* 2014;13:97-102.
10. Shah HG, Ajithkrishnan C, Sodani V, Chaudhary NJ. Knowledge, attitude and practices among Gynecologists regarding Oral Health of expectant mothers of Vadodara City, Gujarat. *Int J Health Sci (Qassim)* 2013;7:136-40.
11. Bhalla A, Anuradha KP. Dental awareness and attitudes among gynaecologists/obstetricians in Kanpur city, Uttar Pradesh. *Rev Prog* 2013;1:1-8.
12. Reddy RS, Amara SL, Tatapudi R, Koppolu P, Nimma VL, Reddy RL. Awareness and attitude towards maintenance of oral health during pregnancy among patients and clinicians attending obstetrics and gynecology ward. *J NTR Univ Health Sci* 2013;2:102-8.
13. Boggess KA, Lieff S, Murtha AP, Moss K, Beck J, Offenbacher S. Maternal periodontal disease is associated with an increased risk for preeclampsia. *Obstet Gynecol* 2003;101:227-31.
14. Ruma M, Boggess K, Moss K, Jared H, Murtha A, Beck J, *et al.* Maternal periodontal disease, systemic inflammation, and risk for preeclampsia. *Am J Obstet Gynecol* 2008;198:389.e1-5.
15. Offenbacher S, Boggess KA, Murtha AP, Jared HL, Lieff S, McKaig RG, *et al.* Progressive periodontal disease and risk of very preterm delivery. *Obstet Gynecol* 2006;107:29-36.
16. Lieff S, Boggess KA, Murtha AP, Jared H, Madianos PN, Moss K, *et al.* The oral conditions and pregnancy study: Periodontal status of a cohort of pregnant women. *J Periodontol* 2004;75:116-26.
17. Alves RT, Ribeiro RA, Costa LR, Leles CR, Freire Mdo C, Paiva SM. Oral care during pregnancy: Attitudes of Brazilian public health professionals. *Int J Environ Res Public Health* 2012;9:3454-64.
18. Hashim R, Akbar M. Gynecologists' knowledge and attitudes regarding oral health and periodontal disease leading to adverse pregnancy outcomes. *J Int Soc Prev Community Dent* 2014;4:S166-72.
19. Patil S, Thakur R, Madhu K, Paul ST, Gadicherla P. Oral health coalition: Knowledge, attitude, practice behaviours among Gynaecologists and dental practitioners. *J Int Oral Health* 2013;5:8-15.