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ASSESSMENT OF PREGNANT WOMEN'S KNOWLEDGE ABOUT ORAL HEALTH AND DENTAL PRENATAL

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Abstract: Goal: Assess the knowledge of pregnant women about oral health and dental care during pregnancy. Method: This is an observational, cross-sectional and quantitative study through the application of a questionnaire with 13 objective questions to pregnant women registered at a Family Health Unit in Maceió, Alagoas, Brazil. After data collection, all issues covered were clarified and pregnant women were instructed about dental treatment during pregnancy and about the care for the baby's oral health. Data from the questionnaires were tabulated and evaluated through descriptive analysis from the distribution of absolute (n) and relative (%) frequencies. **Results**: In total, 42 pregnant women agreed to participate in the study, which found that the majority (90.47%) of respondents considered it important to go to the dentist during pregnancy and 88.09% believe that dental treatment can be performed during prenatal. However, 57.14% of participants have not yet done so. **Conclusion**: Although pregnant women recognize the importance of dental prenatal care, beliefs and myths related to maternal and child oral health still persist, as well as restrictions on the treatments and procedures allowed.

Keywords: Pregnant woman, Dentistry, Prenatal.

INTRODUCTION

Therefore, prenatal care implies a thorough monitoring of the entire pregnancy-puerperal process, including factors such as commitment, empathy, respect for the clientele and committed listening, not only restricted to the biological aspects of the pregnant woman, but also to physical transformations, social, psychological, spiritual and cultural18 [30]. Therefore, prenatal care implies a thorough monitoring of the entire pregnancy-puerperal process, involving factors such as commitment, empathy, respect for the clientele and committed listening, not only restricted to the biological aspects of the pregnant woman, but also to physical transformations, social, psychological, spiritual and cultural18. In summary, it constitutes a set of clinical and educational procedures that accompany the evolution of pregnancy and promote the health of both the pregnant woman and the child[11].

Within the scope of the Unified Health System (SUS), the search for comprehensiveness, health surveillance and equity, based on welcoming, health care, humanization and qualified care are principles that guide the work process of the Health Strategy of Family (ESF). This includes the health care of pregnant women and reveals itself as a tool for reorganizing primary care and changing the care model, aiming to provide structure, reception, quality of care, intersectoriality, referral and counter-referral, community participation, accessibility and solvability [11,8].

In 2000, aiming to expand the access to oral health of the Brazilian population, oral health teams were included in the composition of the professional teams of the ESF[18]. Then, from the implementation of the National Oral Health Policy (PNSB)[17], in 2004, guidelines were launched for the organization of oral health actions and services. These guidelines include an adequate knowledge of the health reality of the population, it is imperative that professionals get closer to users and their territory. When dealing with the expansion of care, we highlight the performance of home visits to bedridden people or people with mobility difficulties, in order to identify risks, monitor the evolution and carry out the necessary treatment[17,18].

The promotion of oral health in pregnant women is a valuable part of the Women's Health Care Program, since the quality of

maternal health directly interferes with the intrauterine formation of her baby's teeth. During the gestational period, the woman may experience increased cardiac output, blood pressure variation, hormonal activities, anemia, diabetes and gastrointestinal and respiratory changes. In addition, in a more targeted way, it increases the risk of dental infections resulting from the lack of access to dental visits, the delay in the beginning of the treatment of oral diseases and changes in the oral cavity resulting from hormonal changes, typical of pregnancy [23].

Some authors have reported maternal insecurity regarding prenatal dental care because they believe that the procedures can negatively influence the course of pregnancy and cause damage to the fetus. [20,29]. Based on the same understanding, ESF health professionals support and often utter myths and reproduce beliefs which reinforce the argument that, in order to offer oral health care to pregnant women in a comprehensive and successful way, the entire health team must be endowed with up-to-date scientific knowledge and professional responsibility. [3,26].

In this sense, a very favorable factor for the maintenance or recovery of maternal oral health is that pregnancy has been identified as an opportune time for the adoption of new and better health practices, because, in the pregnancy-puerperal cycle, women tend to be more receptive to changes and to the incorporation of measures that benefit their baby4. Thus, considering the panorama presented, this research aimed to assess the knowledge of pregnant women in a city in northeastern Brazil about dental care during prenatal care.

MATERIALS AND METHODS

This is a cross-sectional, descriptive-exploratory study with a quantitative approach, developed in the territory of operation ascribed by an ESF team linked to a Basic Health Unit (UBS) on the outskirts of Maceió, Alagoas, Brazil.

The study population consisted of pregnant women selected through a convenience sample. The inclusion criteria were defined as: women in any gestational period, over 18 years of age, registered and under prenatal care by the health team of the selected ESF. Illiterate pregnant women and those with physical and/or cognitive disability, in addition to those who refused to participate or changed their residential address during the research, were excluded.

The evaluation instrument was based on a structured and self-administered questionnaire, prepared by the researchers and composed of 13 objective questions about the object of the study. From January to July 2019, data collection was conducted at the pregnant women's homes, during a home visit promoted by the ESF team. The collected data were tabulated and analyzed using descriptive statistics from the distribution of absolute (n) and relative (%) frequencies of responses referring to each question evaluated.

This study was submitted to the Ethics Committee of Centro Universitário Tiradentes (UNIT/AL) and approved under CAAE nº 8492.3918.3.0000.5641. Respecting the ethical principles provided for in Resolution 196/96 of the National Health Council, the participants signed the Informed Consent Term, prior to their participation. After collecting the data, the researchers clarified all the questions addressed in the study, with a focus on dental treatment during pregnancy and on maternal and child oral health care.

RESULTS

Of the 79 pregnant women followed by the selected FHS, 42 met the eligibility criteria and participated in the survey.

As shown in table 1, most pregnant women (90.47%) believe that dental treatment can be performed during pregnancy. Approximately 88% consider it important to visit a dentist for prenatal dental care; however, 57.14% had not yet done it and 47.62% had not received guidance from their gynecologist/obstetrician to seek assistance.

As for the type of treatment indicated, the participants indicated that dental cleaning and scaling procedures (88.09%) and radiographic examinations (57.14%) could be performed in pregnant women. On the other hand, 28.7% and 38.09%, respectively, mentioned that the use of local anesthesia and tooth extractions would be contraindicated. Regarding the myths relating oral health and pregnancy, 71.42% believe that women lose calcium from their teeth to the baby in formation, 61.9% stated that it is expected/natural to have tooth decay during pregnancy, as well as lose their own teeth (35.71%).

When asked about the influence of maternal oral health on gestational risks, 73.8% of pregnant women indicated that both tooth decay and gingivitis could interfere with the baby's health; however, only 35.71% identified gum inflammation as a risk factor for preterm birth.

DISCUSSION

Pregnancy is referred to as a phase of transition and constitution of motherhood, which drives the occurrence of different turbulences and changes in the woman aiming at the arrival of the baby. Consequently, the gestational period requires a careful and empathetic look from family members, friends and professionals who are able to help mothers to cope with uncertainties and insecurities [26]. However, with regard to the quality of prenatal care in public health services, strategic actions without resoluteness stand out, related to both access and the quality of care provided. [11].

The maintenance of the oral health of pregnant women is of consolidated relevance; however, there are still reports of lack of information and maternal ignorance [1]. In the present study, only a minority of participants did not consider the visit to the dentist as important, however many have not yet started prenatal care. In addition to the likely obstacle related to (un)health care itself, this finding is in line with the findings of Moimaz et al. (2007)[18] and Soares et al., (2020)[29], who observed a refusal to dental care by dentists, justified by the lack of professional training since their academic training. The authors also emphasized that the search for dental care is not always a priority among pregnant women, due to the predominance of myths, even when real problems, such as pain and gingival bleeding, are present. However, the stress caused by discomfort and the risk of spreading an untreated infection can, indeed, harm the mother and fetus[2].

Although some popular beliefs with negative attributes tend to be less widespread in society, several myths still need to be clarified. In this research, despite the minority of participants (35.71%) believe in the premise that "with each pregnancy a tooth is lost", 62% still consider that it is natural to have dental caries during pregnancy and 71.5% assume lose calcium from your teeth, making them "weak". These results contrast with the findings of Santos-Pinto et al. (2001)24 and Martins and Martins (2002)[13] which observed, respectively, that 40.70% of pregnant women expected to have caries and 29.42% associated the disease with the migration of dental calcium to the baby.

NIn this context, it is essential to clarify that the calcium available to contribute to the formation of the fetus is provided by the pregnant woman's food demand, which must be rich in vitamins A, C, and D, proteins, calcium and phosphorus. In case of insufficient

intake of nutritious food, these minerals will be obtained from the mother's mineralized bone reserves. Therefore, the "dental weakening" reported by some pregnant women is the negligence of their own oral hygiene and lack of access to prenatal dental care [5,28].

It is known that, throughout the gestational period, changes in the dietary pattern (increased consumption of carbohydrates and greater frequency of food), poor hygiene and episodes of vomiting/regurgitation tend to unbalance the pH of the oral environment, increasing the risk of caries dental [15]. However, this outcome must not be normalized, since the disease only occurs in the presence of bacterial accumulation on tooth surfaces, that is, if the pregnant woman maintains effective control of the cariogenic biofilm, she will not have caries experience [19].

Although there is strong evidence of the association between periodontal disease and prematurity [20], in our study, only a few participants had the knowledge that gingivitis could contribute to the occurrence of premature birth. The literature agrees that the increase in the levels of female sex hormones tends to aggravate gingivitis. Maternal infections and production of inflammatory mediators, active molecules such as prostaglandins E2 and tumor necrosis factor alpha, can result in preterm birth or low birth weight newborns. [10,21]. A When investigating the reasons why the main oral changes occur in pregnant women, a promising perspective can be seen, as both dental caries and gingivitis are biofilm-dependent and preventable diseases.

In the questions referring to the types of procedures that can be performed in the dental prenatal period, in general, the participants are unaware of the fact that local anesthesia, tooth extraction and oral radiographs are allowed. These results corroborate the works by Scavuzzi et al. (1998) [25] and Codato, Nakama e Melchio (2008)[4], in which pregnant women also had the perception that such procedures could be harmful to the baby and, therefore, contraindicated.

The proper use of local anesthesia in dentistry does not pose a risk to maternal and child health, considering the interaction of the anesthetic agent with the placental barrier. As precautionary measures, the dentist must recommend a correct application technique, with slow and gradual introduction of the drug, avoiding unnecessary repetitions and overdose. Preferably, substances that have greater binding capacity to plasma proteins must be prioritized, such as bupivacaine, mepivacaine and lidocaine, as these will surpass the placenta in a smaller amount, suggesting greater fetal protection [22].

Although the second gestational trimester is recognized as the most suitable period for carrying out dental radiographs due to the greater physical and emotional stability of the pregnant woman, they can be performed safely at any stage of pregnancy [16], as long as preventive measures are adopted, such as protecting the maternal abdomen with a lead apron and using ultra-fast films, which aim to reduce the time of exposure to radiation6.

Bastiani et al. (2010)[1], observed that only 15% of pregnant women had received guidance from their doctors to seek dental care during pregnancy, data that contrasts with those observed in the present study (52.38%). This way, the importance of adopting combined and multidisciplinary measures that signal to women the need for dental prenatal care is highlighted, contributing to the well-being and health of mothers and children. [9].

A well-informed and motivated pregnant woman translates into a multiplier agent of good health habits12. The importance of acquiring new knowledge and changing behavioral patterns during pregnancy reflect positively on the health of the mother-child binomial. On the other hand, those who

receive inadequate or insufficient prenatal care tend to have greater chances of perpetuating ill-conceived ideas. [7].

Finally, it is understood that visits to dental offices can and must be carried out during pregnancy, requiring special attention and a differentiated approach; because, despite being a physiological phenomenon, the gestational period has singularities that demand greater care and professional safety27. Under this scenario, Codato et al. (2011)[3] evaluated the dentist's perception about dental prenatal care and found a lack of depth and theoretical mastery, in addition to performing procedures supported by empiricism. Facts aggravated by the fear of being held responsible for possible fatalities that may eventually occur [14].

CONCLUSION

Despite the fact that pregnant women recognize the importance of dental prenatal care, beliefs and myths related to maternal and child oral health still persist, as well as restrictions on the treatments and procedures allowed. Thus, in the context of Public Health, it would be up to managers to institute targeted care protocols, supervising and encouraging health professionals to be constantly updated, in order to ensure safe and demystified treatment.

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Perguntas	n	%
1. Have you received guidance from your gynecologist/obstetrician to seek dental care during pregnancy?		
Yes	22	47,62
No	20	52,38
The person did not give an opinion	☐	
2. Do you consider visiting the dentist during pregnancy important?		
Yes	37	88,09
No	5	11,9
The person did not give an opinion	☐	
3. Have you ever been to the dentist during this pregnancy?		
Yes	18	42,85
No	24	57,14
The person did not give an opinion	☐	
4. Can pregnant women receive dental treatment during pregnancy?		
Yes	38	90,47
No	4	9,52
The person did not give an opinion	0	
5. Do you believe it's normal to have caries during pregnancy?		
Yes	26	61,9
No	14	33,71
The person did not give an opinion	2	4,76
6. Do you believe it is normal to lose teeth during pregnancy?		
Yes	15	35,71
No	26	61,9
The person did not give an opinion	1	2,38
7. Do you believe that gingivitis (pyorrhea) and tooth decay in pregnant women can influence the baby's general health?		
Yes	31	73,8
No	11	26,19
The person did not give an opinion	0	
8. Do you believe that gum inflammation can cause premature birth?		
Yes	15	35,71
No	27	64,28
The person did not give an opinion	0	
9. Does a woman lose calcium during pregnancy?		
Yes	30	71,42
No	11	26,19
The person did not give an opinion	1	2,38
10. Can tooth extraction be performed during pregnancy?		

Yes	16	38,09
No	25	59,52
The person did not give an opinion	1	2,38
11. Can dental scaling (cleaning) be performed during pregnancy?		
Yes	37	88,09
No	5	11,9
The person did not give an opinion	0	
12. Can local anesthesia be performed during pregnancy?		
Yes	12	28,57
No	30	71,42
The person did not give an opinion	0	
13. The pregnant woman can undergo radiographic exams (x-ray)?		
Yes	24	57,14
No	17	40,47
The person did not give an opinion	1	2,38

Table 1. Absolute (n) and relative (%) frequencies about the knowledge of pregnant women about oral health and dental prenatal care;