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Research Article

Knowledge and Factors Related to Clinical Dental Conduct during Pregnancy

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Abstract

Objective: To identify the knowledge and factors related to clinical dental conduct during pregnancy in the view of a group of dentists who work in the public health system in Brazil (n = 28).

Methodology: Cross-sectional, exploratory study with a quantitative approach. To collect information, a self-administered questionnaire with 26 questions was used. The collected data were organized in tables under absolute and relative frequency, described and discussed in the light of the world literature.

Results: The average age of the interviewees was 38.9 years, with a predominance of females (75%). Regarding the professionals' knowledge, most of them claimed that there is no risk to the baby (67.9%) and to the pregnant woman (64.3%) during dental treatment. The majority also stated that there was a relationship between maternal periodontal disease and the occurrence of unfavorable obstetric outcomes (85.7%). The second trimester of pregnancy was listed as the best time for dental intervention (92.9%) and the ideal time described for the duration of the dental consultation was less than 30 minutes (82.1%). However, mistaken professional impressions arose in relation to the position of the pregnant woman in the dental chair and regarding the contraindications for dental procedures in pregnant women, with 32.1% of dental surgeons stating that there are procedures that should not be performed during pregnancy. The results achieved demonstrate some knowledge of dental surgeons and misguided dental clinical procedures in relation to the dental care of pregnant women, a fact that raises concern in the Brazilian public health level and reinforces the importance of local managers to invest in professional refresher courses and in education in oral health for pregnant women.

Keywords: *Knowledge; Dental Surgeon; Dental Treatment; Pregnant*

Abbreviation

PNO: Pre-Natal Dental

Introduction

Nowadays, it is relevant to encourage women who plan to become pregnant to seek the dental surgeon to receive guidance on the achievement and maintenance of oral health during pregnancy and, if necessary, to be directed to dental treatments. These patients should be aware that establishing oral health, in particular enjoying adequate periodontal conditions before conception and maintaining them during pregnancy can be beneficial for the future outcome of pregnancy and directly impact their quality of life [1].

Pregnancy is a unique period during a woman's life and is characterized by complex physiological changes, which can adversely affect oral health [2]. At the same time, oral health is essential for general health and well-being [3], with preventive, diagnostic and restorative dental treatment safe throughout pregnancy and effective in improving and maintaining oral health [4].

However, health professionals generally do not provide oral health care to pregnant women [5]. At the same time, pregnant women, including some with obvious signs of oral disease, generally do not seek or receive care [6,7]. In many cases, neither pregnant women nor health professionals understand that caring for oral health is an important component of a healthy pregnancy [4].

These data demonstrate the need to maximize the awareness of these individuals about the risks of oral health problems during pregnancy about systemic health and offer simple solutions to encourage women to seek dental care. Continued professional training for dental treatment is also required so that the treatment plan is not limited to resolving an algic process, but is strengthened as a preventive and resolving activity, where there is a comprehensive and effective approach [6].

In this sense, the identification of factors that act as obstacles to dental treatment during pregnancy is essential for the development of resolutive strategies in the promotion of maternal and child health.

Aim of the Study

The aim of the present study is to identify the knowledge and factors related to clinical dental conduct during the gestational period in the view of a group of dentists who work in the public health system in Brazil.

Materials and Methods

This is a cross-sectional, exploratory study with a quantitative approach, carried out with all dentists who work in primary health care in four municipalities in the southern region of Brazil (n = 43), all with a low Human Development Index. The eligibility criteria of the professionals listed professionals working in primary care in the public health system in Brazil and in the profession. The exclusion criteria included the refusal to participate, professionals on sick leave or on vacation.

Data collection took place between the months of February and June 2019 and each participant was personally given a printed, self--applied questionnaire, with 26 questions based on other scientific research [8,9], with information on filling and returning. The questionnaires that returned to the researchers within twenty days after delivery were considered valid and were part of the research.

The researched topics were: dental treatment for pregnant women, duration and position of care, prescription medication, risks of care and adjustments in dental management. The data obtained from the questionnaires were compiled and organized in a Microsoft Office Excel® 2013 program table for measurement and analyzed descriptively.

The research was carried out according to the required ethical criteria and in accordance with the approval of Plataforma Brasil and the National Research Ethics Committee, opinion no. 3.345.182, CAAE: 14368119.6.0000.0105. The surveyed dental surgeons consented to participate in the research through a Free and Informed Consent Form and the managers of the surveyed municipalities authorized the research.

Results and Discussion

Of the total number of dentists under analysis, 28 individuals effectively participated in the survey (65%), by returning their questionnaires within the established period.

The average age of respondents was 38.9 years, with a predominance of females (75%, n = 21). Include here time in the profession and continuing education (specialization course, post-graduation).

All respondents stated that they regularly perform dental care for pregnant women and among these, 64.2% claimed weekly attendance. This data reveals compliance with guidelines from the Brazilian Ministry of Health, which provide for actions to promote maternal and child health and recommend that the pregnant woman undergo dental monitoring with a minimum number of three consultations during pregnancy [10].

Most research professionals (96.4%) claimed knowledge about the term dental prenatal care (PNO), unlike other studies [6,7], which demonstrated that the term is not strongly consolidated among dental surgeons. Continuous efforts are made to strengthen this term, since constituting it as a health policy allows the practice to expand and consolidate itself at different levels of health care [11].

The synthesis of the results obtained through the responses of the dentists is shown below (Table 1) and more detailed information on the responses is described throughout the text.

Knowledge and Factors	n (%)
Risk related to pregnant women	
Yes	10 (35,7)
No	18 (64,3)
Baby-related risk	
Yes	9 (32,1)
No	19 (67,9)
Relationship between periodontal disease and obstetric outcomes	
Yes	24 (85,7)
No	4 (14,3)
Most indicated gestational period	
2nd quarter	26 (92,9)
3rd quarter	2 (7,1)
Maximum session duration time	
15 minutes	2 (7,1)
30 minutes	23 (82,1)
60 minutes	3 (10,8)
Optimal positioning in the dental chair	
Sitting with angulation close to 90º	13 (46,4)
Left lateral decubitus	13 (46,4)
Dorsal decubitus	2 (7,2)
Contraindication of procedures	
Yes	9 (32,1)
No	19 (67,9)
Realization of Local Anesthesia	
Yes	20 (71,4)
No	8 (28,6)
Prescription of non-steroidal anti-inflammatory drugs (AINS)	
Yes	9 (32,3)
No	19 (67,8)
Antibiotic Prescription	
Yes	27 (96,4)
No	1 (3,6)

Table 1: *Knowledge and factors related to the clinical dental conduct of pregnant women.*
Dental surgeons from southern Brazilian municipalities (n = 28). Brazil. 2019.
Source: Author.

A total of 35.7% (n = 10) of those surveyed consider that there are risks for pregnant women related to dental treatment. Among the alleged risks, the risk of maternal hypertensive peak was mostly declared (14.28%). Regarding the baby, changes in the development of the fetus were identified as the main risks related to dental care for pregnant women (14.28%).

These results suggest a lack of knowledge among the professionals surveyed about the importance of capturing medical history, about systemic changes during pregnancy and its consequences and about the appropriate choice of anesthetic for dental treatment during pregnancy, leading to insecurity in drug prescription and in treatment of pregnant patients. However, according to the literature, there is no risk to the pregnant woman or the baby if the professional is trained in the identification of oral changes and their particularities, together with an assessment of the risk-benefit ratio of drugs associated with treatment [12].

In the case of oral changes, professionals were asked about the relationship between the presence of periodontal disease and the occurrence of unfavorable obstetric outcomes, with the majority (85.7%) affirming the possibility of the relationship. Evidence supported by the literature demonstrates the relationship between periodontal disease and the occurrence of negative obstetric outcomes, such as premature delivery, pre-eclampsia, low birth weight and spontaneous abortion [13-15], which reinforces the importance of the dissemination of this knowledge among health professionals and patients.

The second gestational trimester was reported by most CDs (92.8%) as an ideal period for performing dental procedures. This information is in accordance with the literature, which points to the second trimester as the most suitable for dental treatment [11]. However, this is not an absolute rule, since care can be performed at any time, as long as the criteria and recommendations for maternal and fetal safety are respected [16].

As for the ideal time for the dental session, 82.1% of dental surgeons claimed that it should not exceed 30 minutes. Evidence demonstrates the need for short sessions in order to minimize the stress resulting from the service, which can result in potential hypoglycemia and/or cause the adrenal glands to be excited with a consequent adrenaline and corticosteroid discharge into the bloodstream, causing fainting and syncope [17,18].

Regarding the patient's position in the dental chair, 46.4% indicated that the pregnant woman should be seated, at an angle close to 90º, and an equal percentage claimed that the left lateral position is better indicated (46.4%). The literature points out that the left lateral decubitus contributes to the prevention of postural hypotension syndrome by compression of the inferior vena cava [11], being indicated especially in the third trimester of pregnancy [19]. It is important that during and after the session, the professional evaluates signs such as difficulty breathing, increased urge to urinate, decreased heart rate and monitor the pregnant woman's vital signs [20].

When asked about possible contraindications for dental procedures in pregnant women, 32.1% stated that there are procedures that should not be performed during pregnancy. This result highlights the lack of knowledge among the professionals surveyed and demonstrates the need for continuing training programs for health professionals, since there is no contraindication to performing dental procedures in pregnant women, as long as the dentist respects the safety and health requirements. have knowledge of details related to the patient's systemic and gestational health [21].

Among the professionals who stated the contraindication of some dental procedures during pregnancy, five specified that radiographic examinations should not be performed. This finding shows limitations in the knowledge of the literature on the subject, since studies have shown that the performance of radiographs in pregnant women is safe given that the dose and exposure time are minimal and restricted to a specific area [22]. Even so, all protective care must be taken, such as the use of an apron and lead necklace, ultra-fast film, diaphragm and locator [23].

Local anesthetics are safe throughout the gestation period, as long as the patient's individualized therapeutic dosage is respected. When the dose is limited to a maximum of two tubes containing 1.8 mL each, there is no contraindication, since most anesthetic salts are

not related to teratogenic effects [17]. The anesthetic salt of choice that is most safe in pregnant patients is 2% lidocaine [24,25], which was mentioned by all of those surveyed in the present study [26].

There was disagreement regarding the association.

Conclusion

Although not in a forceful way, the results achieved demonstrate some knowledge of dental surgeons and misguided dental clinical procedures, with regard to the dental care of pregnant women, a fact that generates concern in the Brazilian public health level and reinforces the importance of managers invest in professional refresher courses and oral health education for pregnant women.

Conflict of Interest

There is no conflict of interest.

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