

Importance of Preventive and Dental Care During Pregnancy

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Abstract

Pregnancy is a biological process that entails physiological and psychological changes in the pregnant woman. These changes modify the body of the mother-to-be and, consequently, her oral cavity is no exception; there are a greater predisposition to caries, the appearance of gestational gingivitis, periodontitis, dental erosion, halitosis, among others. The aim of this study is to analyse the medical criteria regarding the importance of oral health during pregnancy and the follow-up given to these criteria. The main results obtained were that 22% of those surveyed considered that it was not necessary to carry out specific periodontal check-ups in accordance with the gestation period. Furthermore, despite the recommendations given, the majority of professionals do not follow up on the patient's oral health care, which makes it difficult for the dentist to carry out preventive activities.

Keywords: Pregnancy, oral health, gingivitis, pregnancy epulis, caries

1. Introduction

Oral health encompasses the care not only of the teeth but also periodontal tissues and all the structures of the stomatological system. It is an important part of overall health, therefore, if a woman is pregnant, it is necessary in her prenatal care to have check-ups with the dentist. Being pregnant comes with many responsibilities, and the way the person takes care of their oral health is no exception. Recent data published by the World Health Organization WHO suggests that about 50% of women do not have a dental visit during pregnancy, even when they perceive a dental need, in addition, those women who had dental insurance received less attention when they are pregnant than when they are not.⁽¹⁾

According to Muralidharan et al., pregnancy is a unique period in a woman's life and is characterized by complex physiological changes, which can adversely affect oral health. For Schaia et al. oral health is an integral part of overall health, oral

problems found in the pregnant patient should be addressed quickly and appropriately. Rabinerson et al, mention that several national health organizations have issued statements in recent years calling for better oral health care during pregnancy. However, many women do not currently seek or receive dental care during the perinatal period.⁽²⁾⁽³⁾⁽⁴⁾

According to Díaz et al. the state of gestation can increase the chances of suffering from certain types of periodontal diseases and the considerable increase of caries. In agreement with Maybury et al, the authors state that periodontal diseases are accentuated due to hormonal changes, identifying higher rates of gingival inflammation in pregnant women compared to non-pregnant women. In addition, some studies have shown a higher prevalence of dental caries among pregnant women. Alfaro et al. state that, in some studies a possible association between periodontal infection and preterm birth has been demonstrated, the evidence has not shown any improvement in outcomes after treatment⁽⁵⁾⁽⁶⁾ dental during pregnancy. However, these studies did not raise any concerns about the

safety of dental services during pregnancy.(7) Izquierdo et al. mention that, it is necessary to enhance general health and well-being, women should receive routine counseling on the maintenance and importance of oral health care during pregnancy. If the pregnancy is high-risk or you have other medical conditions, both your dentist and doctor may recommend that treatment be postponed. In turn, it is necessary to inform the dental professional if there are any changes in the medications in the case of taking them or if you have received any special advice from your doctor.(8)(8)

On the other hand, Bouz et al. mention that, eating habits can change or generate the consumption of unhealthy foods, which affect dental health, additionally, pregnant women reduce brushing and flossing, this may be because their gums are sensitive or that they are more tired than usual. For some women, brushing and flossing can cause nausea and upset stomachs.(8)

Changing or varying oral cleaning and hygiene habits cause various problems such as halitosis or the appearance of cavities that represent a potential risk to the health of the fetus since the bacteria that causes cavities can be transmitted to the baby during pregnancy and after birth. Another affection associated with pregnancy is the appearance of gingivitis due to the increase in hormones and it is known that between 60 and 75 percent of pregnant women have gingivitis since in dental consultations they manifest redness and swelling, sensitivity and bleeding in the gums.(9)

During pregnancy there is usually temporary damage to the tissues and bones that keep the teeth in place, this can cause the teeth not to remain fixed, in turn, the appearance of gingivitis if not treated in time can cause a serious infection in the gums and problems with the bones that support the teeth causing a bacteremia that is the presence of bacteria in the bloodstream. This is a serious condition that requires immediate treatment.(10)

In more extreme cases, pregnancy tumors (also called pyogenic granuloma) usually appear. These tumors are not cancer, they are lumps that form in the gums, usually between the teeth and look red and raw which cause them to bleed easily. They can be caused by having too much plaque (a sticky film containing bacteria that forms on your teeth). These tumors usually go away on their own after giving birth. Rarely,(6)(7)the health care provider may need to remove them. Finally, during pregnancy dental erosion is common, this caused by frequent exposure to stomach acid if you have vomiting due to morning sickness. This acid can damage tooth enamel.(11)(12)

For all the above, the realization of this study is important since the guidance and medical importance provided by health professionals regarding oral health care in pregnant women will be made known. Finally, the general objective of this project is to identify the criteria of professionals in general medicine, gynecology and obstetrics, on

oral health care in pregnant women.

2. Methodology

Se establish various parameters that define the research methodology to be applied in the development of this research.

Research techniques

- Survey: For the execution of the survey, the Forms platform will be used directly to the health area personnel, which are: general practitioners, gynecologists and obstetricians, the survey will use liker scales, that is, closed questions. Additionally, it will consist of 7 related and structured questions aimed at collecting the criteria that address women in gestation periods on oral health care.
- Research instruments
- Survey guide: It corresponds to a basic scheme, which will detail the 7 questions that will be applied with their respective answer alternatives, it is important to collect objective information, for this reason the use of open questions will not be allowed.
- Forms Form: The survey mentioned above will be developed on the Forms virtual platform in order to streamline the data collection process and reduce digitization errors.

Population and sample

For the development of the study, it is sought to collect the criteria of health professionals on the dental care presented by pregnant women. Arandom sample was considered for convenience of 82 health professionals, consisting of medical specialists, gynecologists and obstetricians in private practice.

3. Results

Once information belonging to 82 health professionals has been collected, including gynecologists, obstetricians, medical specialists and others (see figure N°1), the following results can be mentioned below:

Question 1. What specialty do you have?

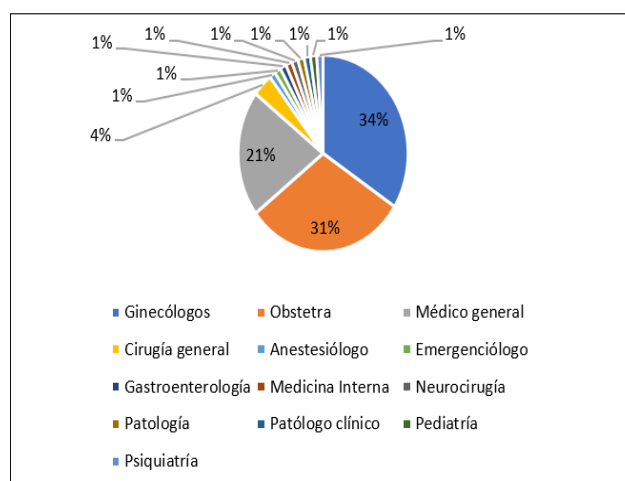


Figure 1. Health professionals surveyed
Source: Kleiner Silva, 2022

4. Analysis

In general, the medical segments in the data collection correspond to gynecologists, obstetricians and general practitioners, with an assessment of 34.1%, 30.5% and finally 20.7% respectively, the sum of these medical groups represents a total of 85.3%. This behavior is due to the fact that these specialties have greater contact with pregnant women compared to other medical specialties, such as, for example, pathologists who have less or no contact with the population under study.

Question 2. Have you referred patients in pregnancy processes to dental control?

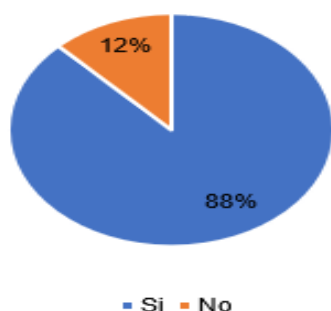


Figure 2. Dental control of patients in the process of gestation

Source: Kleiner Silva, 2022

Analysis

87.7% of the health personnel surveyed say "yes" refer pregnant patients to the professional in dentistry, this part of the population represents the good recommendation of obstetricians, gynecologists and general practitioners, who when identifying possible damage or periodontal conditions these professionals suggest to the patient the respective dental control. On the other hand, there is a 12.2% that has not referred pregnant patients to oral health care, this may be because it was not considered necessary, so preventive and curative activities in the field of Dentistry would not be carried out due to this lack of guidance by the doctor.

Question 3. Have patients referred to dental care attended dental check-ups?

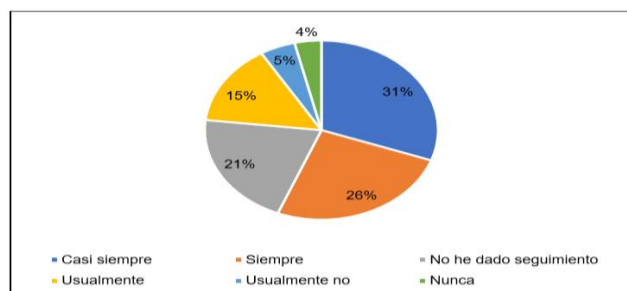


Figure 3. Patients derived from dental care

Source: Kleiner Silva, 2022

Analysis

With the positive results in the previous question, we proceeded to identify a possible follow-up to the

recommendations provided by the medical staff surveyed, where 20.7% have not given a follow-up if the patient attended a review with the dental professional. Meanwhile, 4.9% and 3.7% mentioned that they usually did not and never attended dental checkups despite the suggestion given. This fact shows a significant risk in the dental health of the mother since it is essential to prevent and identify pathologies such as gingivitis, pregnancy epulis, caries, halitosis, xerostomia, periodontal diseases, among others, in order to assign timely dental controls and emphasize the continuity of their treatment, avoiding irreversible damage that deteriorates the quality of life of the pregnant woman. It is also essential that the doctor in charge of birth control emphasizes in the patient the importance of prevention and promotion of dental care, as well as the frequency of the appearance of these diseases due to the physiological process she is going through.

Question 4. How would you rate the importance of pregnant women with respect to dental care?

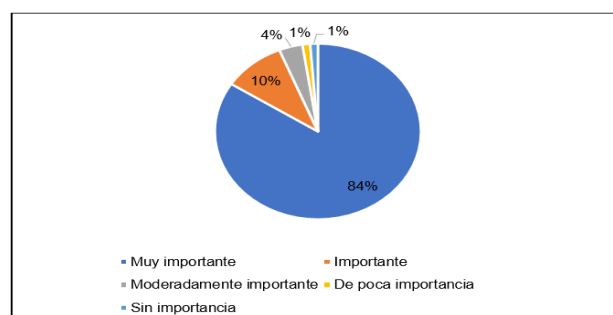


Figure 4. Importance of dental care for pregnant women

Source: Kleiner Silva, 2022

Analysis

There is a small population in pregnant women patients who despite suggesting a consultation in dentistry does not do so and ignores the recommendation, in such a situation, 6.1% of health professionals catalog that pregnant women patients give a moderate, of little importance and even unimportant.

Question 5. How many times do you think a pregnant woman should visit the dentist?

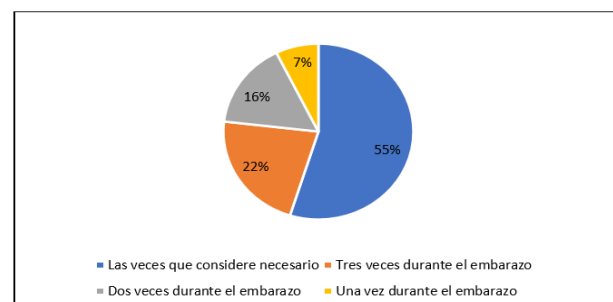


Figure 5. Dental visits during pregnancy

Source: Kleiner Silva, 2022

Analysis

As for the criteria of the medical staff, 54.9% consider

that visits to the dental professional should be as many times as necessary, followed by 22%, which considers that they should be at least 3 times during pregnancy, finally, only 15.9% consider that only one visit to dental care within pregnancy is enough. According to the previous theory, it is considered that a mandatory dental control should be performed between the first and second trimester of pregnancy, since there is a greater risk factor in presenting a dental involvement due to several factors such as; increased vomiting, which contains residues of gastric acids that erode the enamel surface especially of the anterior teeth, changes in habits in oral hygiene, hormonal alterations, increased estrogen and progesterone producing capillary vasodilation, which favors exudate and gingival permeability. Mainly the control of oral health is directed to a preventive management that avoids the accumulation of bacterial plaque and the incidence of pathologies resulting from oral disease.

Question 6. What are the main diseases that a pregnant woman presents in her oral health?

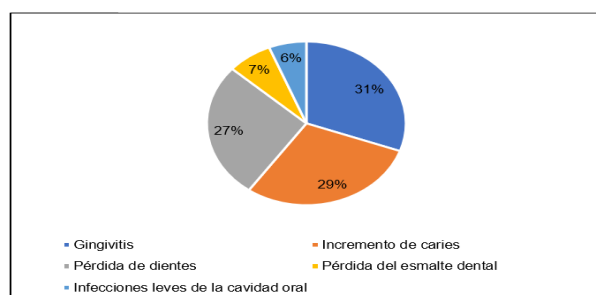


Figure 6. Main oral health problems in pregnant women

Source: Kleiner Silva, 2022

Analysis

30.5% of the surveyed population considers that the main disease that a pregnant woman presents in her oral health is gingivitis, followed by 29.3% belonging to the increase in caries and finally 26.8% corresponds to tooth loss. As mentioned above, routine dental controls are of great importance for the prevention of diseases of the oral cavity and avoid even the unnecessary loss of healthy teeth, in extreme cases where patients began their gestation process with previous diseases (extensive caries, root remains, gingivitis, among others) you will need recurrent care with your dentist for proper treatment.

Question 7. Should pregnant women have specific periodontal care according to their gestation period?

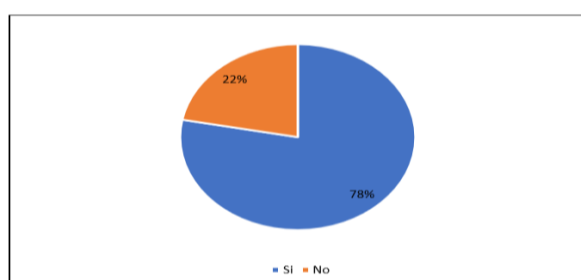


Figure 7. Importance of periodontal care in pregnant women

Analysis

Finally, regarding periodontal care considerations, 78% of medical staff consider that it is necessary according to their gestation period, while 22% do not consider it necessary. According to the data collected, it would be necessary to provide a brief induction of the consequence of not performing a preventive dental control throughout the gestation stage for the reasons already mentioned.

5. Discussion

The results obtained show that 87.8% of the health professionals surveyed refer pregnant women patients to dental controls, however, 8.6% do not attend such controls and 20.7% have not followed up on compliance with the indications provided by the general practitioner. Which is consistent with the study conducted by Muralidharan et al. mentioning that, although 91.2% of patients knew it was important to take care of their teeth and gums during pregnancy, only 58.8% did; Likewise, it specifies that approximately 51.4% of pregnant women had a health/dental worker who told them about such care and 70.0% of women who received care for a dental problem during this process, had access to this information by the health professional. That is, despite the recommendations made by the health professional, patients do not go to a dental control, which shows a significant risk in the dental health of the pregnant woman. Regarding the follow-up, these results obtained are consistent with the studies prepared by Luengo et al. and Vaca where a percentage around 20% of the population present the same behavior on the absence in the reviews of their oral health, the authors explain that many cases are held in the difficult economic situation they present, followed by lack of commitment.(13)(14) Likewise, it was identified that 6.1% of health professionals point out that this behavior is due to little or no interest and this is confirmed by Onwuka et al. in their study where they found that the most common reason given by patients not to visit a dentist during their gestation stage was that such a visit was not relevant to the outcome of their pregnancy and after counseling them, Only 60.3% agreed to perform dental consultation during subsequent pregnancies. More than 50% of these professionals agree that the frequency of dental controls should be those that the dentist considers necessary to preserve dental integrity and continuity of treatment if applicable, combating prevalent pathologies in the gestation process, such as: gingivitis (30.5%), caries (29.3%) and tooth loss (26.8%), which are considered based on the results obtained, They are the most common conditions in the future mother. A fact that is consistent with Alfaro et al. whose emphasis lies in the most frequent alterations that occur in the oral cavity in pregnant women, the author highlights the presence of oral

and facial changes such as gingivitis gravidarum and dental caries; However, the author specifies that tooth loss in a pregnant woman possibly reflects her usual state of oral health, but is not a usual consequence of pregnancy. On the other hand, Togoo et al. found in their study that most pregnant women were unaware of the development of pregnancy gingivitis, as(13)(15) well as the cause, effects, treatment and preventive measures of it, despite being the most frequent condition in the gestation process, which is a concept of special interest in this study.(16)

Based on the above, the data collection also identified that 22% of the professionals surveyed consider it not necessary to perform specific periodontal controls according to the gestation period, however, there are several investigations that attribute the ignorance of women to the growing incidence of oral diseases that can occur in pregnancy, as Liu et al. assert that receiving insufficient, confusing or contradictory information limits dental care-seeking behavior; or Maybury et al. who accepts in their study that only 53% of participants reported seeing a dentist during pregnancy, where most women were unaware of the Medicaid dental program for pregnant women and the importance of prenatal dental care. Given this panorama, the treating physician must act in a timely manner for the promotion of health and prevention of diseases, avoiding that the progress of the same can guide extreme cases such as the loss of the tooth, that is, referring in a timely manner to dental control, as emphasized by Doucède et al. where he emphasizes that there is a lack of knowledge on the part of health professionals and their patients, Firstly, on the link between poor oral hygiene and the impact on pregnancy, secondly, on the viability of oral care during pregnancy(17)(18)(19) .

At this point it is necessary to emphasize the limitations presented by this study, such as the lack of collaboration in the resolution of the survey, because possibly because professionals from various areas of health participated in it, some of whom do not routinely perform pregnancy control in their consultations, however it is important that they are familiar with the subject of study and its importance for promotion and prevention of health of the pregnant patient.

6. Conclusions

- Pregnancy is a biological period that entails a series of physiological and psychological alterations for the adaptation of the woman's body, those hormonal changes have great influence on the appearance of conditions in their oral health, which accompanied by behavioral changes and lifestyle of the pregnant woman, could even aggravate their dental conditions. In this way, it becomes essential to know what are the most frequent conditions and when would be the opportune time to treat

them.

- Most of the professionals surveyed are aware of the importance of oral health during pregnancy, evidenced by the usual referrals to dental staff, however, compliance with controls has been affected either partially or totally by the lack of commitment of the pregnant woman and even by the insufficient follow-up of the attending physician. Therefore, professionals agree that the performance of dental controls should be as many times as necessary, essentially in the first and second trimester of pregnancy, allowing clinical decision-making and the development of timely preventive and curative activities.
- During this period, the teeth, supporting tissues and oral mucosa may present disorders that together with a deficit of dental self-care and a dietary alteration constitute an important risk factor for the appearance of frequent pathologies such as gingivitis, caries, periodontitis, halitosis, among others that in the most serious cases would mean the loss of the tooth, Therefore, it is transcendental to recommend to the pregnant woman the performance of dental controls essentially in the first and second trimester of pregnancy where the patient is categorized by her level of vulnerability, which facilitates clinical decision-making and the development of preventive and curative activities to preserve their dental health.

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