Greener Journal of Medical Sciences
Vol. 14(2), pp. 213-216, 2024
ISSN: 2276-7797

https://gjournals.org/GJMS

Awareness of Oral Health Amongst Antenatal Clinic Attendees: In a Private Setting in Nigeria.

Eli S[1,2], Abam DS[3], Martin N[1], John D[1], Biibaloo LL[4], Ukiwe OO[5], Iwo-Amah RS[1], Ofomola LI[6], Ela GM[1]

Department of Obstetrics and Gynaecology, Rivers State University Teaching Hospital.[1]
Obstetrics and Gynaecology Unit, First Rivers Hospital.[2]
Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital.[3]
Department of Surgery (ENT}, Rivers State University Teaching Hospital.[4]
Health Wise Hospital, Port Harcourt, Rivers State.[5]
Department of Dentistry, University of Port Harcourt Teaching Hospital, Nigeria.[6]

ARTICLE INFO

Article No.: *111024165*
***Type*:** *Research*
Full Text: *PDF, HTML, PHP, EPUB*

Accepted: *11/11/2024*
Published: *28/11/2024*

Corresponding Author
Dr. Abam DS MBBS, FWACS
E-mail: *dagabam@yahoo.com*

Keywords: *Awareness, oral, health, antenatal, attendees.*

ABSTRACT

Background: Oral health in pregnancy is an important aspect of care necessary for maintaining a good state of health. As a result of the physiological changes in pregnancy, pregnant women are predisposed to some dental lesions. It is of importance that they are aware of some of these common pathologies.
Aim: To determine the level of awareness of oral health care amongst antenatal clinic attendees at a private setting in Port Harcourt, Rivers State.
Method: This was a cross-sectional study involving antenatal clinic attendees conducted in a private hospital over a period of one year. Informed consent was obtained from subjects. The data obtained was analyzed using SPSS version 25.
Results: Two hundred and forty questionnaires were analyzed for the study under review. The mean age was 30 ± 2 years. The modal parity was 2. The mean gestational age was 20 weeks. Seventy-two (30%) of the attendees were aware of dental health care in pregnancy; of which 48 (20%) had tertiary education, while 19 (7.9%) and 5 (2.1%) of the respondents had secondary and primary levels of education respectively.
Conclusion: Oral health is an important aspect general health. However, from this study, the awareness of oral health amongst pregnant women was relatively poor, below 50%. There is need to incorporate oral health care (hygiene/education) in routine antenatal talks.

INTRODUCTION:

Oral health or hygiene is an important part of the general health, as well as in pregnancy, due to the fact that the oral cavity is a 'window' through which external microorganisms interact with the host.[1] Researchers have shown that a myriad of systemic diseases can manifest their effect on the oral health of the individual.[2] In addition, it has been shown that there is a relationship between periodontal diseases and systemic conditions such as cardiovascular diseases and diabetes, and preterm low birth weight.[1,3]

Based on the fact that in pregnancy there are different dynamics of the physiology, due to hormonal changes, and periodontal diseases are common with prevalence ranging from 30% to 100%.[4,5] Due to these hormonal changes in pregnancy these periodontal diseases, which are as a result of inflammatory changes, are associated with destruction of the supporting structures resulting in bone and attachment loss.[6] Periodontal diseases are known to be associated with adverse outcomes in pregnancy such as preeclampsia, preterm labour and low birth weight.[7-12] These diseases are major causes of maternal morbidity and mortality, and by maintaining good oral health and hygiene the adverse outcomes may be prevented.[8]

Obstetricians and midwives, the main specialists caring for pregnant women, need to encourage them to maintain personal oral hygiene and to visit the dentist regularly.[2-4]

Awareness of periodontal diseases has increased in recent times but is still not up to the expected.[3-4] Periodic visits to the dentist can help diagnose many oral diseases such as caries, periodontitis and malocclusion which when detected early can be treated resulting in better prognosis.[9]

In a study by Penmetsa et al., 260 pregnant women were evaluated on the awareness of dental health in pregnancy; the respondents were divided into 2 groups, A and B.[1] Group A, with 130 respondents had regular visits with the dentist and Group B, with 130 respondents also never saw a dentist. Among the study participants only 3.96% of Group A and 1.93% of Group B were aware of the association between periodontal disease and adverse pregnancy outcome.[1] When respondents were asked regarding the advice from a gynaecologist for a dental check-up, only 7.97% and 4.92% in the respective groups responded positively.[1]

In a study by Boggess et al., on 599 individuals, the result showed that pregnant women have little knowledge on oral health association with pregnancy, which varied according to maternal race or ethnicity.[4] In another study, by Gupta et al., the level of awareness was 60% irrespective of education and age.[5] A research work by Nagi et al., showed similar results, wherein 75% of the individuals had no knowledge regarding periodontal complications.[12]

Aim:

To determine the level of awareness of oral health care amongst antenatal clinic attendees at a private setting in Port Harcourt, Rivers State.

METHOD:

This was a cross-sectional study involving antenatal clinic attendees conducted in a private hospital over a period of one year. Informed consent was obtained from subjects. The data obtained was analyzed using SPSS version 25.

Study Location:

First Rivers Hospital, Port Harcourt, Nigeria. Obstetrics and Gynaecology Department is one of the key departments in the hospital with consultants in charge.

Sample Size Determination

In evaluating oral health awareness in pregnancy a previous study showed that 60% of pregnant women were aware of oral health and its importance in pregnancy in a study by Gupta et al. Therefore, the sample size from simple proportion with 5% accuracy and 95% level of confidence will be calculated as below. The required sample size was calculated from this formula:

$$n = \frac{z^2 pq}{d^2}$$

Where:

n = desired sample size.
z = the standard normal deviate, usually set at 1.96, which corresponds to 95% confidence level.
P= the proportion (prevalence) from previous study 60%
q = 1.0 –p
d = degree of accuracy desired, usually set at 50% (0.05) or 2% (0.02).

Therefore, $n = \frac{(1.96)^2(0.6)(0.04)}{(0.02)^2}$

= 230.49
Approximately = 240

RESULTS:

Two hundred and forty questionnaires were analyzed for the study under review. The mean age was 30 ± 2 years. The modal parity was 2. The mean gestational age was 20 weeks. Seventy-two (30%) of the attendees were aware of dental health care in pregnancy; of which 48 (20%) had tertiary education while 19 (7.9%) and 5

(2.1%) of the respondents had secondary and primary levels of education respectively.

Table 1: Summary of Results

Number of respondents	240
Mean age	**30 ± 2 years**
Modal parity	**2**
Have awareness of oral health	**72 (30%)**

Table 2: Education status of participants having awareness about oral health

Educational level	Number (n)	Percentage (%}
Primary	**5**	**2.1**
Secondary	**19**	**7.9**
Tertiary	**48**	**20**
	72	**30**

Inclusion criteria:

All the pregnant women that consented to the study for the period under review.

Exclusion criteria:

Pregnant women who did not consent to the study.

DISCUSSION:

This study shows that the awareness of oral health amongst the 240 antenatal clinic attendees that participated was 30%, this was less than half. The awareness was highest among pregnant women with tertiary level of education (Tables 1 and 2), and was higher than that obtained by Boggess et al., on 599 individuals, which showed that pregnant women have little knowledge on oral health association with pregnancy which varied according to maternal race or ethnicity.[4] Similarly, in a study by Gupta et al., low level of awareness (60%) was reported irrespective of education and age.[5] Nagi et al. in their study on pregnant women reported that 75% of participants had no knowledge regarding periodontal complications.[6]
Inference was made of low awareness by gynaecologists on the relationship between pregnancy and periodontal disease.[1] Periodontal diseases are known to be associated with adverse effects in pregnancy such as preeclampsia, preterm labour and low birth weight.[1-4] These diseases in pregnancy are major causes of maternal morbidity and mortality.[1,2] By maintaining good oral health and hygiene the adverse outcomes may be prevented.[3-4]

In a study by Penmetsa et al. 260 pregnant women were evaluated on the awareness of dental health in pregnancy, the study participants were divided into two groups, A and B.[1] Group A with 130 respondents had visited a dentist, and Group B with 130 respondents also never saw a dentist in their lifetime. Among the study participants, only 3.96% of Group A and 1.93% of Group B were aware of the association between periodontal disease and adverse pregnancy outcome.[1,7-14]

CONCLUSION:

Oral health is an important aspect of general health and taken cognizance of during antenatal care. However, from this study, the awareness of oral health amongst pregnant women was relatively poor, far below 50%.

There is the need to incorporate oral health care (hygiene/education) in routine antenatal talks. Furthermore, increased awareness by pregnant women regarding oral health, more importantly periodontal diseases, is likely to lead to seeking early evaluation by a dentist following referral by the attending obstetrician and gynaecologist, or midwife.

Maintaining good oral health is a stepping stone in preventing pregnancy complications associated with poor oral health such as pre-eclampsia, prematurity and low birth weight.

Oral health education inclusion in the antenatal clinic talks will invariably lead to improvements in health seeking behaviour of pregnant women with regard to oral diseases, and expectedly, lead to better perinatal and maternal outcomes. It also helps in the prevention of the transmission of cariogenic pathogens from the mothers to the children in later life.

Conflict of interest:

Authors have declared that there was no conflict of interest.

Acknowledgement:

Mother, Baby and Adolescent Care Global Foundation.

Ethics:

Guidelines in line with Helsinki's declaration (revised 13th edition).

REFERENCES:

1. Penmetsa GS, Meghana K, Bhavana P, Venkalakshmi M et al. Awareness, Attitude and Knowledge Regarding Oral Health among Pregnant women. A comparative study. Niger Med J 2018;59(6):70-73.
2. Kane SF. The effects of oral health on systemic health. Gen Den 2017;65:30-4.
3. Ramamurthy J, Fathima I. Assessment of knowledge and awareness about periodontal oral health among

pregnant women – A questionnaire study. Int J Curr Res Rev 2017;9: 9-17.
4. Boggess KA, Urlaub DM, Moos MK, Polinkovsky M et al. Knowledge and beliefs regarding oral health among pregnant women. J Am Dent Assoc 2011;142: 1275-82.
5. Gupta S, Jain A, Mohan S, Bhaski N, Walia PK. Comparative evaluation of oral health knowledge practice and attitude of pregnant women and their awareness regarding adverse outcome. J Clin Diagn Res. 2015;9:ZC26-32.
6. Nagi R, Sahu S, Nagaraju R. Oral health, nutritional knowledge and practice among pregnant women and their awareness relating to adverse pregnancy outcomes. J Indian Acad Oral Med Radiol 2016;28:396-402.
7. Rogers SN. Dental attendance in a sample of pregnant women in Birmingham, UK. Community Dent Health 1991;8:361-8.
8. Ayamolowo LB, Esan AO, Ibitoye OS et al, Oral health behavior of pregnant women in Nigeria: a scoping review. BMC Oral Health 2024; 24:971.
9. Gesase N, Miranda-Rius J, Brunet-Llobet L, Lahor-Soler E, Mahande MJ, Masenga G. The Association between Periodontal Disease and adverse pregnancy outcomes in Northern Tanzania: a cross-sectional study, Afr Health Sci. 2018: 18(3):601-11.
10. Azadbakht K, Baharvand P, Artemes P, Niazi M, Mahmoudvand H. Prevalence and risk factors of oral cavity parasites in pregnant women in Western Iran. Parasite Epidemiol Control 2022; 19:e00275.
11. Adesina KT, Ernest MA, Tobin AO, Isiaka-Lawal SA, et al. Oral health status of pregnant women in Ilorin, Nigeria. J Obstet gynaecol. 2018;38(8): 1093-8.
12. Umoh AO, Savage KO, Ojehanon PI. Association between maternal Gingivitis, Low Birth Weight and Preterm Delivery. JMBR. 2013: 12(1):65-75.
13. Uwambaye P, Munyanshongore C, Rulisa S, Shian H et al. Assessing the Association between Periodontitis and premature birth: a case–contol study. BMC Pregnancy Childbirth 2021;p:21.
14. Adeniyi A, Donnelly L, Jansesen P, Jevitt C, von Bergman H et al. A qualitative study of Health Care Providers' views on integrating oral health into prenatal care. JDR Clin Trans Res. 2021;6(4): 409-19.

Cite this Article: Eli, S; Abam, DS; Martin, N; John, D; Biibaloo, LL; Ukiwe, OO; Iwo-Amah, RS; Ofomola, LI; Ela, GM (2024). Awareness of Oral Health Amongst Antenatal Clinic Attendees: In a Private Setting in Nigeria. *Greener Journal of Medical Sciences*, 14(2): 213-216.