

Oral Health Awareness Among Pregnant Women in Neyyattinkara, Kerala- A Cross sectional Study

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Abstract

Objective: There is plenty of evidence in the literature suggesting association between poor oral health, periodontal disease and adverse pregnancy outcomes including pre term low birth weight deliveries, still birth, miscarriage, intrauterine growth retardation and pre- eclampsia. The objective of the present study was to assess the oral health awareness among pregnant women in Neyyattinkara,Trivandrum.

Methods: This was a cross- sectional study conducted among pregnant women attending the outpatient department of Gynaecology at Government Hospital, Neyyattinkara. Pretested, structured, self administered questionnaire allowing open and closed responses was used for data collection.

Results: The age of the subjects ranged from 20 to 43 years and the age group 24- 36 was found to be significantly more. Majority had at least secondary education. Less than 20% were aware of the effect of pregnancy on oral health. The experienced oral health problems in general were gum bleeding, tooth decay, swollen gums and dental pain.

Conclusion: Awareness among pregnant women regarding oral health was poor irrespective of age and educational qualifications. Proper guidelines have to be developed that will promote referral and periodic visits of pregnant women for dental consultation.

Keywords: Awareness, Guidelines, Pregnancy, Oral Health

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I. Introduction

A large proportion of pregnant women experience oral health problems during pregnancy¹. Recently there is a lot of evidence in the dental literature regarding the potential ways in which oral health may contribute to general health. Physiologic conditions like pregnancy, puberty, menstrual cycle, menopause and non physiologic conditions like hormonal therapy influence women's oral health². Pregnant women have special oral needs due to hormonal fluctuations which influence oral health. Unfortunately, majority of women believe that oral problems during pregnancy are normal and would disappear after delivery³. Hence, they do not either seek professional dental care or are reluctant to undergo dental procedures for fear of possible harm to themselves or their babies. Most antenatal clinics do not routinely perform oral health screening and there are no guidelines to ensure that pregnant women are routinely screened and referred to a dentist for oral care as part of prenatal care. Maintenance of oral health during pregnancy has now been recognized as an important public health issue worldwide. Numerous studies have reported that good oral health in pregnancy is advantageous both to the mother and her baby. Maternal periodontal disease is said to be linked to preterm birth and low birth weight⁴. By controlling plaque through brushing, flossing and professional oral prophylaxis it is possible to achieve good oral health in pregnancy. The aim of the present study was to assess the oral health awareness among pregnant women in Neyyattinkara, Trivandrum.

II. Methods

This was a descriptive cross-sectional study conducted among pregnant women attending the outpatient clinic of Gynaecology department, Government Hospital, Neyyattinkara, Trivandrum. The study was approved by the Institutional Ethics and Research Committee. Pregnant women who gave their informed consent were recruited for the study.

Pretested, structured, self-administered questionnaire with both open and closed responses was used for data collection. For illiterate women, completion of questionnaire was interview guided in local language

(Malayalam). Information on socio demographic characteristics of the subjects was collected. These included age at last birthday, level of education and number of children. Educational status was further divided into participants with primary education or less and participants with secondary education or more. In addition to this, the subjects were asked whether they were aware of the relationship between pregnancy and oral health. Descriptive statistics and cross tabulations were done and Chi-square test was used to test the significance between variables. *P* values < 0.05 were considered statistically significant.

III. Results

A total of 300 questionnaires were distributed. Out of these 274 were properly filled and used for tabulation. The descriptive statistics of the subjects are presented in Table 1. The mean age of the subjects was 34 ± 4.28 years. The age ranged from 20 to 43 years. Majority were in the age group 24-36 years. Majority had secondary education or more which was significant than who had primary education or less ($p < 0.01$). Women having 3 children or more constituted less than 25% of the study population.

Table 1: Descriptive Statistics of subjects according to socio demographic characteristics

Variable	Response	Frequency (N)	Percentage (%)
Age	20-23	70	25.5
	24-36	165	60.2
	>36	39	14.2
Number of children	0-2	206	75.1
	3 or more	68	24.9
Educational status	Primary education or less	49	18
	Secondary education or more	225	82

It was found that less than 20% of the participants were aware of the effect of pregnancy on oral health and its impact on pregnancy outcomes. Similarly less than 35% of the participants had received oral health education and oral hygiene instructions during pregnancy (Table 2).

Table 2: Descriptive statistics of association between oral health and pregnancy and information on oral health

Variable	Response	Frequency(N)	Percentage
Does pregnancy affect oral health	Yes	44	16.1
	No	230	84
Whether received oral health education 21.7	Yes	60	21.7
	No	214	72.8
Whether received oral hygiene instruction 23.6	Yes	65	23.6
	No	209	76.3

The experienced oral health problems among the subjects in general were gum bleeding, tooth decay, swollen gums and dental pain. However, only 32.7% of the participants had visited a dentist.

IV. Discussion

There is growing evidence that certain conditions besides systemic diseases may have an effect on oral health especially in persons with poor oral hygiene. Pregnancy is one among these conditions and there is evidence in the literature suggesting an association between poor oral health, pregnancy and even preterm low birth weight deliveries⁵. Even though oral diseases negatively impact pregnancy outcomes very few numbers of pregnant women seek dental care and hence a majority experience oral health problems. Hence every effort should be made to educate, screen and provide dental care for pregnant women.

In the present study, one third of the women experienced oral health problems but only one fifth had visited a dentist. This could be due to various factors like lack of awareness, limited access to dental care, poor

education, socio cultural factors as well as perceptions among women in Kerala. These findings are in accordance with the studies by Chacko et al⁶ and Avula et al⁷. This study showed that few women were aware of the association between pregnancy and oral health and very few had received oral health education and oral hygiene instructions. These findings are in accordance with other studies which have reported lack of awareness and knowledge as a barrier for utilization of dental services during pregnancy^{8,9}.

In the current study it was seen that 21.7% and 23.6% of the pregnant women recalled to have received oral health education and oral hygiene instructions respectively from a dentist during pregnancy. This is concurrent with the findings reported by Nwangosi et al¹⁰ but in contrast to the study by Detman et al¹¹ where most of the women could not recall to have received any dental information during prenatal visits. The most common oral condition found in this study was gum bleeding which is in accordance with the findings of Bassey et al¹².

Generally, difference in socioeconomic status affects oral health seeking behaviour. It is seen that prevalence of both periodontal disease and caries is more in low income women¹³. In this study bleeding gums, swelling of gums and dental pain significantly occurred in women with primary education or less compared to those with secondary education or more. This could be due to the fact that women with primary education or less were of lower socioeconomic status and thus were less likely to seek dental care. They also tend to have poor oral hygiene. Poor oral hygiene leads to gingival inflammation in pregnant women.

One of the most important limitation of the present study is its reliance on self reported data which is inherent to biases especially recall bias. However, within the limitations of the study it can be concluded that quite a number of pregnant women experience oral health problems during pregnancy and do not utilize dental services. The non-utilization of dental services is mainly due to lack of oral health awareness and due to lack of information on the impact of oral health on pregnancy outcomes. Routine oral screening and oral health education is necessary to improve oral health status of pregnant women. Proper guidelines that will promote referral and routine visits of pregnant women for dental consultation should be developed.

Conflicts of Interest: The authors report no conflicts of interest in the study.

References

- [1]. Murphey C, Fowles E. Dental health, acidogenic meal and snack patterns among low- income women during early pregnancy: A pilot study. *J Midwifery Womens Health* 2010;55:587-92.
- [2]. Patil S N, Kalburgi N B, Koregol A C, Warad S B, Patil S, Ugale M S. Female sex hormones and periodontal health- awareness among gynaecologists- A questionnaire survey. *Saudi Dent J*.2012;24:99-104.
- [3]. Ressler – Maerlender J, Krishna R, Robison V. Oral health during pregnancy: Current research. *J Womens Health (Larchmt)*2005;14:880-2.
- [4]. Dasanayake A P, Gennaro S, Hendricks- Munoz K D, Chhun N. Maternal periodontal disease, pregnancy, and neonatal outcomes. *MCN Am J Matern Child Nurs* 2008;33:45-9.
- [5]. Offenbacher S, Katz V, Fertik G et al. Periodontal infection as a possible risk factor for preterm low birth weight. *J Periodontol* 1996;67:1103-13.
- [6]. Chacko V, Shenoy R, Prasy HE, Agarwal S. Self reported awareness of oral health and infant oral health among pregnant women in Mangalore, India – A prenatal survey. *Int J Health Rehabil Sci*. 2013;2:109-15.
- [7]. Avula H, Mishra A, Arora N, Avula J. KAP assessment of oral health and adverse pregnancy outcomes among pregnant women in Hyderabad, India. *Oral Health Prev Dent*. 2013;11:261-70.
- [8]. Mangskau KA, Arrindell B. Pregnancy and oral health: Utilization of the oral health care system by pregnant women in North Dakota. *Northwest Dent* 1996;75:23-8.
- [9]. Obuna JA, Ugboma HA, Igbinedion H et al. Awareness of pregnancy related oral diseases in women attending ante-natal clinic in a University Teaching Hospital in Nigeria. *Int J Trop Med* 2012;7:61-3.
- [10]. Nwangosi IE, Kiango MM. Oral health experience during pregnancy and dental service utilization in Bariadi District, Tanzania. *Tanzania J Health Res* 2012;4:1-7.
- [11]. Detman LA, Cottrell BH, Denis – Luque MF. Exploring dental care misconceptions and barriers in pregnancy. *Birth* 2010;37:318-24.
- [12]. Bassey GO, Anyanechi CE, Ekabua JE. Oral health among ante-natal care attendees in Calabar, Nigeria. *J Obstet Gynaecol* 2010;30:143-6.
- [13]. Bashiru BO, Anthony IN. Oral health awareness and experience among pregnant women in a Nigerian tertiary health institution. *J Dent Res Rev* 2014;1:66-9.

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