The main aim of the study was to assess the knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD.

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ABSTRACT

INTRODUCTION: Mouth is the main part of the body through which the microorganisms can enter inside the body. Nowadays, it is said that various systemic diseases are affected due to the improper care of the buccal cavity or mouth. Periodontal diseases are considered as inflammatory diseases that destroy the supporting structures, resulting in detachment of the bone which is due to the hormonal changes varying the vascular supply and tissue response in the body.The main of study is to knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD.**METHODOLOGY:** The study design was descriptive non-experimental design. The objectives of the study were knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD. 100 antenatal natal mothers was selected for the study by using Non-probability convenient sampling technique.**RESULT:** The major finding showed that the majority of 52% of them were in the age group of 26-29 years, 80% were Hindus, 44% were educated up-to graduation, 77% of them were homemaker, 60% of antenatal mothers were joint families,60% of antenatal mothers were from urban area,41% was between Rs 15001-2000, 53% completed 4-6 months, 67% of antenatal mothers were gravida 0, 70% of antenatal mothers were nulliparous ,97% of antenatal mothers did not had knowledge regarding periodontal disease and oral hygiene,33.33% each had knowledge from relative/friends, health personnel and media.Knowledge score knowledge regarding periodontal disease and oral hygiene. 51% of antenatal mothers had average level of knowledge score, 41% of antenatal mothers had good level of knowledge score, 4% of antenatal mothers had very good and poor knowledge score each However, and none of the antenatal mother had excellent level of knowledge score.**CONCLUSION**:This indicates that majority of the antenatal mothers had average level of knowledge on Periodontal Disease and oral hygiene.Hence, more collective efforts are required from dental and medical professionals to improve the oral and periodontal health outcomes during pregnancy.

KEY WORDS: Knowledge,Periodontal Disease,Oral Hygiene,antenatal mothers,attending, ANC OPD

INTRODUCTION

Mouth is the main part of the body through which the microorganisms can enter inside the body. Nowadays, it is said that various systemic diseases are affected due to the improper care of the buccal cavity or mouth. Periodontal diseases are considered as inflammatory diseases that destroy the supporting structures, resulting in detachment of the bone which is due to the hormonal changes varying the vascular supply and tissue response in the body.[1]

Pregnancy is unlike, that causes great enthusiasm and often joyful period in a woman's life, as it highlights the woman's life with great surprise, creative and nourishment powers while providing connection to the future. Though, women need to be conscious and supportive towards the unborn child, during that period she has to pay a high cost. The unborn child gets the whole nutrition from his mother. During the nine month duration the women has to take care of herself, in terms of health and lifestyle.[2]

The hormonal change that happens during the antenatal period affects the mouth or the buccal cavity. The changes can increase the bacteria in the mouth because of the changes in the dietary pattern, changes in the dental care, increased amount of salivary composition, changes in the gum and increase in the level of estrogen and progesterone hormone. [2] Periodontal disease and the hormonal changes in pregnancy leads to adverse effects like premature delivery, low birth weight, and pre-eclampsia that are major causes of maternal morbidity and mortality. These adverse outcomes can be prevented through maintenance of proper oral hygiene; thus, care of mouth and buccal cavity is an integral part in maintaining health of a pregnant women.[3]

Periodontal disease is an infection which is related to gums, tissues, bone and teeth. These are often painless and you may ignore until your gums and bone are seriously damaged and have started causing problem to you.[4]

Oral health is one of the important aspects of general health. Amongst the population, women are considered to be the home grown of oral health problems as they undergo numerous physiological changes from the beginning of the menarche to the end of menopause.[5]

Periodontal health in pregnant women is an emerging topic for research since 1960. The incidence of gingivitis and inflammation of gingival are the commonest forms of oral manifestation in pregnancy and it is has being reported from 30%-100%, though it frequently changes from 60%-70%.[6]

NEED OF THE STUDY

During the reproductive period of a woman's life , she undergoes series of hormonal and physiological changes with high levels of estrogens and progesterone .It is reported that the estradial levels is in plasma increase upto 30 times higher than during the menstrual cycle. These hormonal changes lead to increase in periodontal problems like gingivitis and low salivary pH which in turn increases the risk of developing dental caries.[7]

Swati Patil, RajulRanka, MinalChaudhary, AlkaHande, Preethi Sharma,2018, conducted a study on prevalence of dental caries and gingivitis among pregnant and nonpregnant women in 2018 at Wardha, Maharashtra, India. A total sample included 303 pregnant women and 238 non-pregnant women in the study. The diagnosis was made according to world health organization diagnostic criteria for dental caries and gingivitis. The result of the study revealed that dental caries was highly seen in pregnant women who were above the age of 25 years, illiterate in terms of education, and homemakers in terms of occupation. The result concluded that pregnant women were 2.2 times more likely to suffer from dental caries during pregnancy and 1.94 times more prone to develop gingivitis. Proper provision of education and knowledge awareness programme can improve oral health among the pregnant women. [8]

Ritu Gupta and Arun Kumar Acharya department of Public Health Dentistry, DJ College of Dental Sciences and Research, Modinagar, Uttar Pradesh 2016 and Department of Public Health Dentistry, Navodaya Dental College and Hospital, The total samples were 300 primigravida mothers from 5 taluks of Raichur district. The oral health status was examined by the WHO oral health assessment form. The prevalence of caries and periodontal 6 Diseases were 62.7% and 95%, respectively. In which the result showed that 89.6% of women aged 20–24 years are married, 66% of the women were of lower socioeconomic status followed by lower middle class and very small percentage of women belonged to high class status.. In this study the prevalence of periodontal diseases was high with 5.0% among the pregnant women. Moreover it was also found that more than 34.3% of the pregnant women used finger and charcoal to clean their teeth.[9]

Viewing the above incidence and prevalence of periodontal disease and the status of oral hygiene and its adverse outcome among pregnant women, the investigator felt the need to design a descriptive study to assess the knowledge regarding periodontal disease and oral hygiene among antenatal women attending ANC OPD in selected hospitals of the city and to develop and disseminate an informational booklet on periodontal disease and oral hygiene.

AIMS OF THE STUDY: The main aim of the study was to assess the knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD.

MATERIAL AND METHODS: In view of the nature of the problem selected for the study and objective to be accomplished descriptive research approach was considered. The objective of the study to assess the knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD at selected hospitals.Quantitative research approach was adopted for the study. The study was conducted selected Hospitals of the city.Population includes all antenatal mothers who are attending ANC OPD and are available at the time of data collection at selected hospitals.the sample consists of 100 antenatal mothers.Non-probabilityconvenient sampling technique was used. Even after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was filled personally by interviewing the subjects. For content validity tool was given to 20 experts for the content and construct validity and by using Guttman Split Half form method of reliability, it is found to be 0.8610 and hence tool is reliable and valid. The pilot study was done on 10 samples and found that the study was feasible for the final study.

The data obtained was analysed in terms of the objective of the study using descriptive and inferential statistics. The plan of data analysis was developed under the excellent direction of experts in the field nursing and statistics.

MAJOR FINDING OF STUDY:

Section I: Demographic Profile

It shows that 52% of them were in the age group of 26-29 years, 80% were Hindus, 44% were educated up-to graduation, 77% of them were homemaker, 60% of antenatal mothers were joint families,60% of antenatal mothers were from urban area,41% was between Rs 15001-2000, 53% completed 4-6 months, 67% of antenatal mothers were gravida 0, 70% of antenatal mothers were nulliparous ,97% of antenatal mothers did not had knowledge

regarding periodontal disease and oral hygiene,33.33% each had knowledge from relative/friends, health personnel and media.

Section II: description on assessment of knowledge score of antenatal mothers attending ancopd in selected hospitals regarding periodontal disease and oral hygiene.

Table No. -1 table showing frequency percentage wise distribution of assessment of knowledge score of antenatal mothers attending ANC OPD in selected hospitals regarding periodontal disease and oral hygiene.

n=100

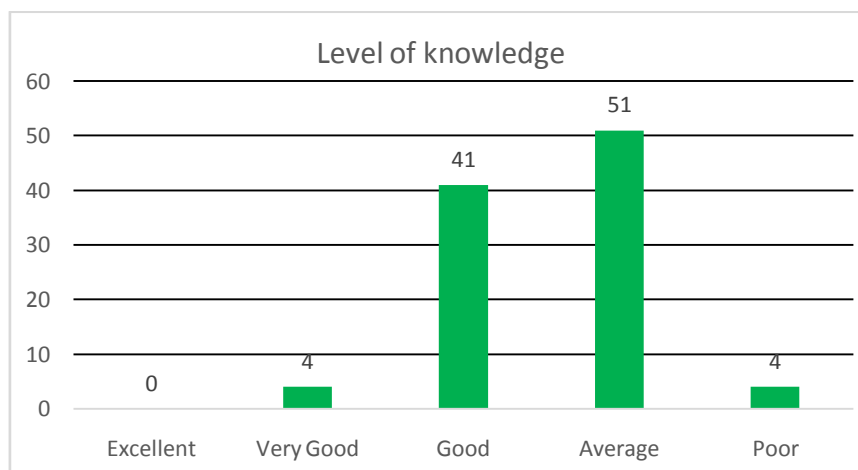| Level ofknowledge	ScoreRange	LevelofKnowledgeScore	
		Frequency(f)	Percentage
Excellent	81-100%(21-25)	0	0
VeryGood	61-80%(16-20)	4	4
Good	41-60%(11-15)	41	41
Average	21-40%(6-10)	51	51
Poor	0-20%(0-5)	4	4
Minimum score		4	
Maximumscore		17	
Meanknowledgescore		10.29 ± 2.67	
Mean%KnowledgeScore		41.16 ± 10.70	

Figure No- 1 Bar diagram representing percentage wise distribution of antenatalmothers attending ANC OPD in selected hospitals with regard to assessment ofknowledgescoreregarding periodontal disease and Oralhygiene.

The level of knowledge score knowledge regarding periodontal disease and oral hygiene. 51% of antenatal mothers had average level of knowledge score, 41% of antenatal mothers had good level of knowledge score, 4% of antenatal mothers had very good and poor knowledge score each However, and none of the antenatal mother had excellent level of knowledge score.

Section III:distribution of area wise assessment of knowledge score of antenatal mothers attending ancopd in selected hospitals of the city regarding periodontal disease and oral hygiene.

Table 2: Table showing Area wise mean, SD and mean percentage of knowledgescore among antenatal mothers attending ANC OPD in selected hospitals regardingperiodontal disease andoral hygiene.

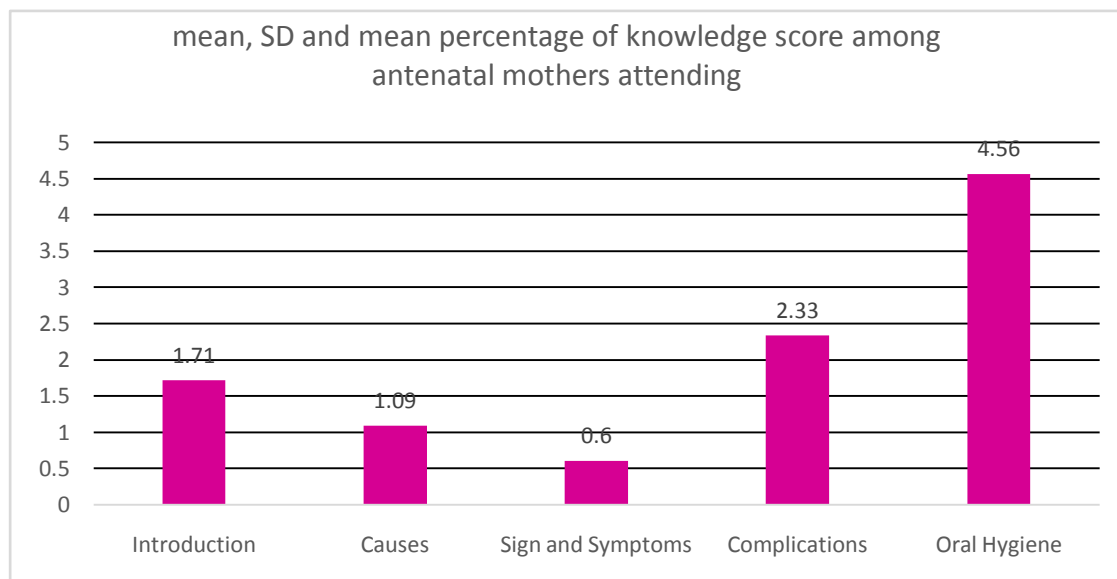|	No.of questions	Mean	SD	Mean%
Introduction	3	1.71	0.76	57
Causes	3	1.09	0.81	36.33
SignandSymptoms	2	0.60	0.55	30
Complications	5	2.33	0.97	46.60
OralHygiene	12	4.56	1.66	38

Figure No-2: Bar diagram representing Area wise mean, SD and mean percentageof knowledge score among antenatal mothers attending ANC OPD in selected hospitalsof thecity regarding periodontaldiseaseand oral hygiene.

Mean knowledge score of antenatal mothers for the area of introduction was 1.71 ± 0.76, forthe area of causes it was 1.09 ± 0.81, for the area of sign and symptoms it was 0.60 ± 0.55, forthe area of complications it was 2.33 ± 0.97 and for the area of oral hygiene mean knowledgescorewas 4.56 ± 1.66.

SECTIONI: Description on association of knowledge score with selecteddemographicvariables.

Data reveals that there is association of knowledge score with Religion, Occupationand Monthly family income and none ofthe other demographic variableswere associatedwithknowledgescore.

DISCUSSION: The study aimed at determining the study was to assess the knowledge regarding Periodontal Disease and oral hygiene among antenatal mothers attending ANC OPD at selected hospitals. Population includes all antenatal mothers who are attending ANC OPD and are available at the time of data collection at selected hospitals. the sample consists of 100 antenatal mothers. Non-probability convenient   sampling technique was used after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was filled personally. Study tool was filled personally by interviewing the subjects. The study result was showed that demographic characteristics of study 52% of them were in the age group of 26-29 years, 80% were Hindus, 44% were educated up-to graduation, 77% of them were homemaker, 60% of antenatal mothers were joint families,60% of antenatal mothers were from urban area,41% was between Rs 15001-2000, 53% completed 4-6 months, 67% of antenatal mothers were gravida 0, 70% of antenatal mothers were nulliparous , 97% of antenatal mothers did not had knowledge regarding periodontal disease and oral hygiene, 33.33% each had knowledge from relative/friends, health personnel and media.The level of

knowledge score knowledge regarding periodontal disease and oral hygiene. 51% of antenatal mothers had average level of knowledge score, 41% of antenatal mothers had good level of knowledge score, 4% of antenatal mothers had very good and poor knowledge score each However, and none of the antenatal mother had excellent level of knowledge score.there is association of knowledge score with Religion, Occupation and Monthly family income and none of the other demographic variables were associated with knowledge score.

The present study supported by ShimaaAbdelrahimKhalaf(2018) on Knowledge, attitude and practice of oral healthcare among pregnant women in Assiut, Egypt. . The study aimed to assess oral health knowledge, attitude and reported practices among pregnant women in Assiut Governorate. Methods: A descriptive cross-sectional study design was used. A structured interview questionnaire was used; included two tools: Tool (I); part (1) personal data, part (2): assessment of knowledge about oral health, part (3): reported practices of oral health and tool (II): included pregnant women attitude toward oral health. Results: the study revealed that: 79.7% of the interviewed women were aged ≤30 years, 82.5% of them were from rural area. Illiterate women represented 33.2% of the studied group. 85.5% of the pregnant women were housewives. Positive attitude toward oral hygiene was significantly higher among urban, educated, working and primigravidae (p=0.007, 0.03, <0.0001 and 0.04 respectively). Practices of daily cleaning of the teeth was higher among urban than rural residents (79.7% versus 46.8% respectively), university educated (89.3%) than other groups, and working women than housewives (84.9% versus 47.1%)with statistical significant difference while neither age nor number of pregnancies affected daily teeth cleaning. Conclusions: Being highly educated, working and of urban residence positively affected both the oral hygiene attitude and practices among interviewed pregnant women.[10]

CONCLUSION: Periodontal problems" encompass several conditions that include gingival and periodontal diseases . Periodontal diseases always start as gingivitis which denotes an inflammation of gingival tissue due to microbial challenge.In view of the ever growing evidence that periodontal diseases are associated with various systemic conditions including adverse pregnancy outcomes, it is recommended that oral health be integrated into general health care of pregnant women in all reproductive and child health clinics in the country.

After the detailed analysis, this study leads to the following conclusion:The study reveals mean knowledge score 10.29 ± 2.67 and the mean knowledge percentage score was 41.16 ± 10.70. Analysis also reveals that there is association of knowledge score Religion, Occupation and Monthly family income while none of the others demographic variables were associated with knowledge score. Thus it was concluded that assessment of knowledge regarding periodontal disease and oral hygiene among antenatal mother attending ANC OPD in selected hospital of the city was average. Antenatal mothers were having good knowledge in the area of Oral hygiene.

Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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