

# Knowledge about Periodontal Problems among Female Patients Visiting the Department of Periodontics at the Thai Moogambigai Dental College and Hospital in Chennai

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**Abstract:-** The aim of this study is to assess the awareness about periodontal problems among female patients visiting the Department of Periodontics. It is a cross sectional study. 100 patients visiting the department of periodontology were selected for the study. The subjects are asked to answer 20 questions which is multiple choice type. Comparative graphs are made and discussed.

## ➤ Objective

This study was carried to assess the awareness about periodontal problems among female patients visiting the Department of Periodontics at Thai Moogambigai Dental College and Hospital, Mogappair west, Chennai.

## ➤ Methods

A cross sectional study was carried out among the female patients who came to the Department of Periodontics of Thai Moogambigai Dental College and Hospital, Mogappair west, Chennai. A total of 100 patients were randomly selected and a self-constructed questionnaire was given to them. The responses obtained from the patients were evaluated in terms of numbers and percentage.

## ➤ Results

The results of the study show lack of awareness and limited knowledge about the periodontal problems.

## ➤ Conclusion

There is a healthy need education programs to educate them about periodontal problems among female patients during different stages of life.

**Keywords:-** Awareness, Knowledge, Practice, Periodontal Health, Puberty, Pregnancy, Menopause, Periodontal Disease.

## I. INTRODUCTION

Periodontal disease is an inflammatory process whose prevalence depends on certain risk factors like age, education, oral hygiene practices, dental awareness etc. [1]. Endocrine changes play a vital role in periodontal health during different phases of women's life like puberty, menses, pregnancy and menopause because oral cavity contains endocrine receptors. For example, hormones like estrogen and progesterone play a part in physiological changes [5].

During puberty hormonal levels may be increased and affect gingival tissues [3]. During puberty, certain microorganisms like *Prevotella intermedia* and *Capnocytophaga* may appear [7]. Due to bacterial deposits the inflamed tissue may be red and edematous with ballooning of interdental papilla [4].

During pregnancy, hormone levels are raised. This leads to gingivitis, periodontitis and localized gingival enlargements [1].

During menopause, irreversible changes occurs to steroid hormones. These changes directly affect the oral cavity [19]. Some of the changes include burning sensation, altered taste, xerostomia, atrophic gingivitis etc. [17].

This study was conducted in Thaimoogambigai Dental College and Hospital, Mogappair West, Chennai is to assess the awareness of female patients regarding periodontal problems. This result can be useful for conducting an oral health education session aimed to improve the oral health in female patients.

**II. MATERIALS AND METHODS**

This is a cross sectional study and was carried out among the female patients visiting the Department of Periodontics of Thai Moogambigai Dental College and Hospital, Mogappair West, Chennai. A total of 100 patients were selected using a sampling technique and a self-constructed questionnaire was given to them.

Patients were divided into two groups depending upon their age (Group A: 20 to 40 years and Group B: 40 to 80 years). 50 patients in each Group. The awareness was compared among groups. Ethical committee approval was obtained from university and the collected data's were confidential.

The questionnaire consists of 20 questions. The only patients who were visiting the college during the study period were selected. The questions are based on oral health practice, their knowledge and awareness about periodontal problems. The patients were briefed about the study and consent was given to them.

**III. RESULTS**

Responses obtained from question number 1  
How many times do you brush your teeth?

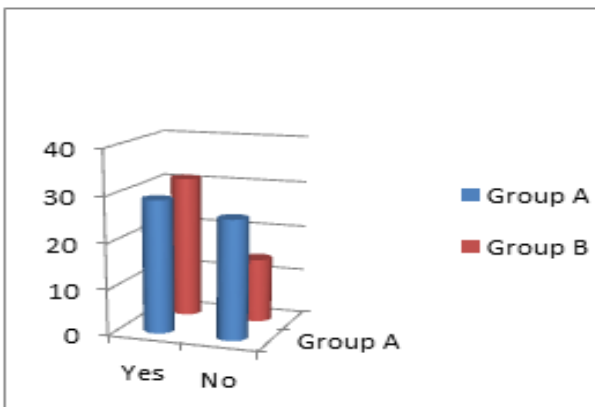


Fig 1:- 25% responded yes from Group A and 30% responded yes from group B

Responses obtained from question number 2  
Do you use any other oral hygiene aids other than toothbrush for cleaning your tooth?

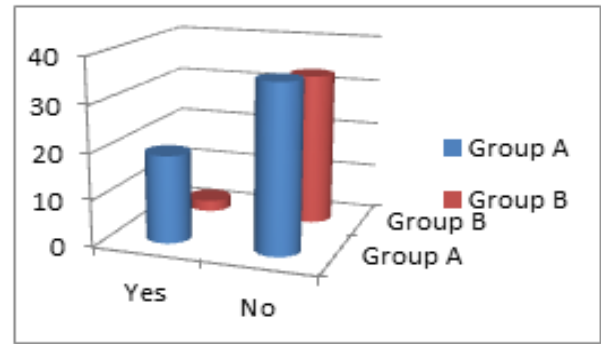


Fig 2:- 15% responded yes from Group A and less Than 5% responded yes from Group B

Responses obtained from question number 3  
Do you use mouth wash regularly?

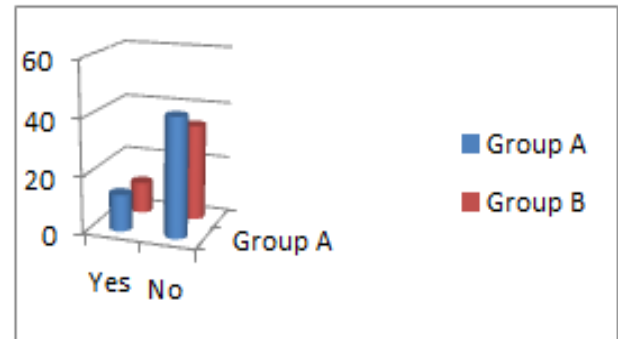


Fig 3:- 15% responded yes from Group A and 10% responded yes from Group B

Response obtained from question number 4:  
Does mouth breathing habit affect oral health?

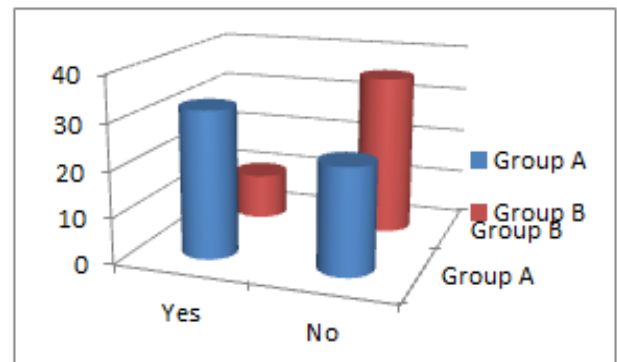


Fig 4:- 30% responded yes from Group A and 10% responded yes from Group B

Response obtained from Question number 5:  
Do you know that sex hormone play an important role in periodontal health and disease?

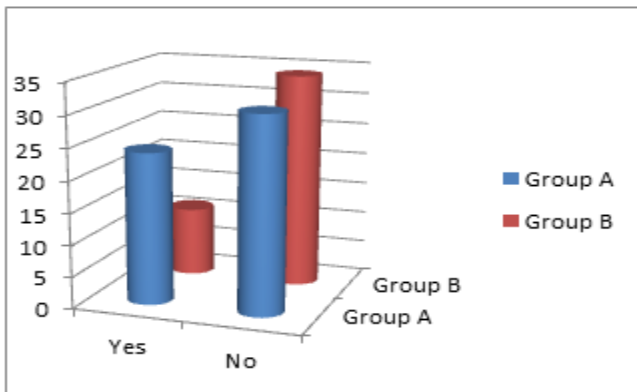


Fig 5:- 20% responded yes from group A responded correctly. 10 % responded yes from group B

Response obtained from Question number 6:  
Are you anemic?

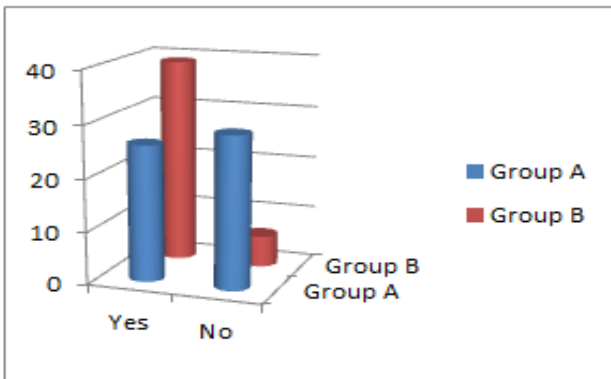


Fig 6:- 20% responded yes from Group A and 40 % are responded yes from Group B

Response to Question number 7  
Did you notice gum swelling during puberty?

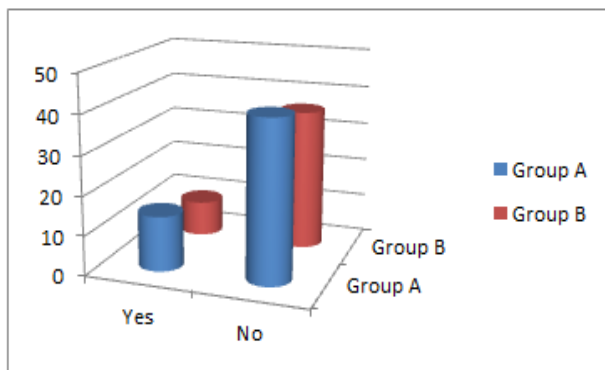


Fig 7:- 10% responded yes from Group A and 5% responded yes from Group B

Response obtained from Question Number 8:  
Did you feel pain in gums during puberty?

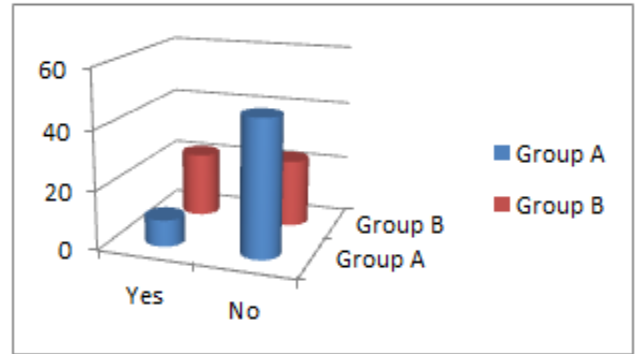


Fig 8:- 5 % responded yes from Group A and 20 % responded yes from group B

Response obtained from question number 9:  
Did you notice color changes during in gums during puberty?

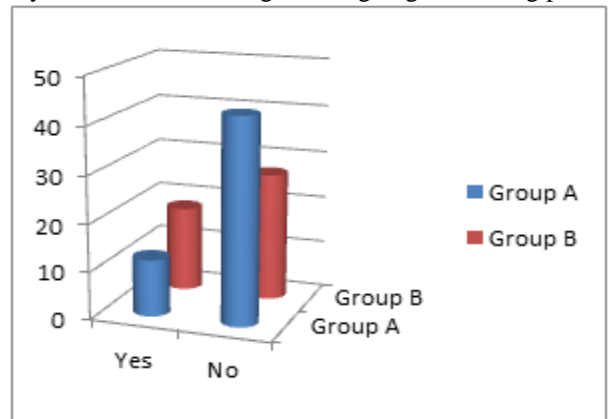


Fig 9:- 5 % responded yes from Group A, 15 % responded yes from Group B

Response obtained from Question number 10:  
Are you aware of oral health practices to be considered during pregnancy?

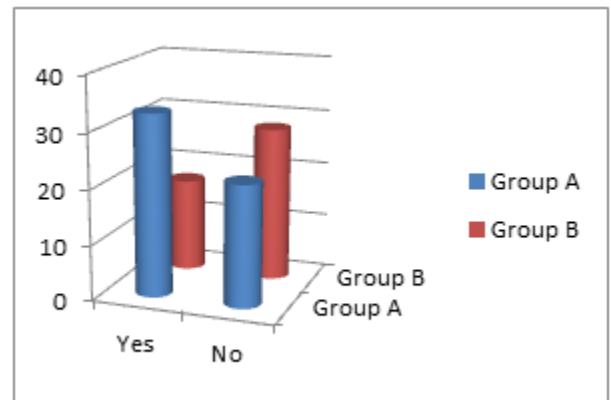


Fig 10:- 30% responded yes from Group A and 15% responded yes from Group B

Response obtained from Question number 11:  
Are you aware of the importance of dental checkup during pregnancy?

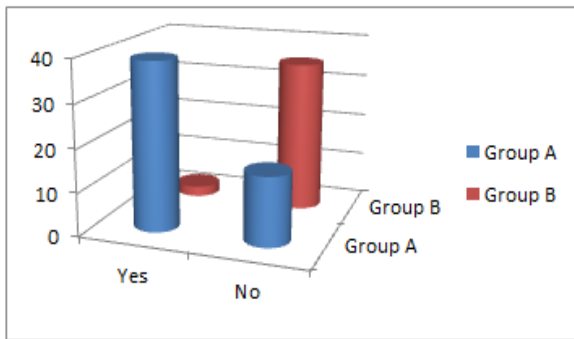


Fig 11:- 35% responded yes from Group A and 5% responded yes from Group B

Response obtained from Question number 12:  
Do you feel that dental treatment will affect the health of the new born?

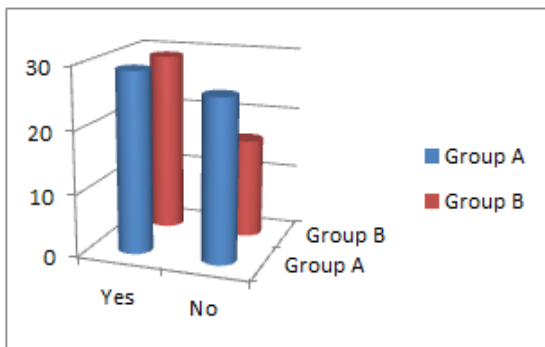


Fig 12:- 25% responded yes from Group A and 30% responded yes from Group B

Response obtained from Question number 13:  
Have you noticed any foul smell originating from your mouth during pregnancy?

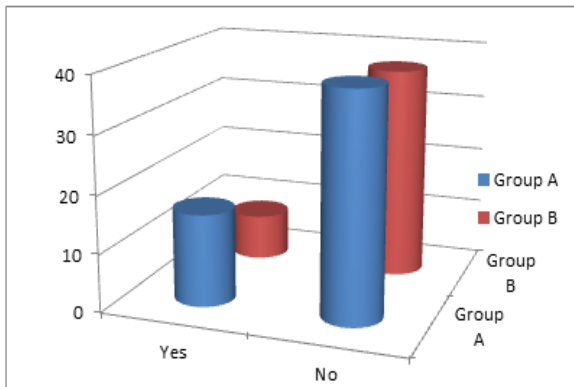


Fig 13:- 10 % responded yes from Group A and 5% responded yes from Group B

Response obtained from Question Number 14:  
Did you experiences similar gum problem during previous pregnancy?

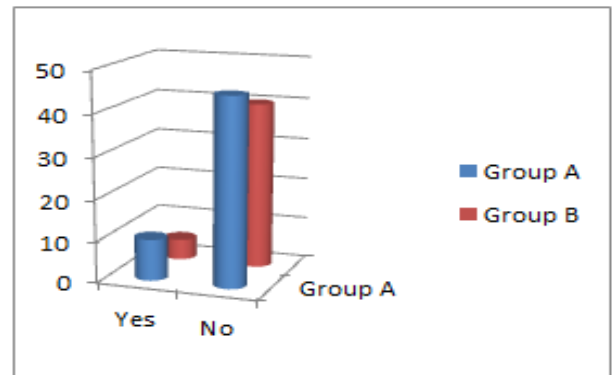


Fig 14:- 5%responded yes from Group A and less than 5% from Group B.

Response obtained from Question number 15:  
Did you find any difficulty in oral hygiene maintenance during pregnancy ?

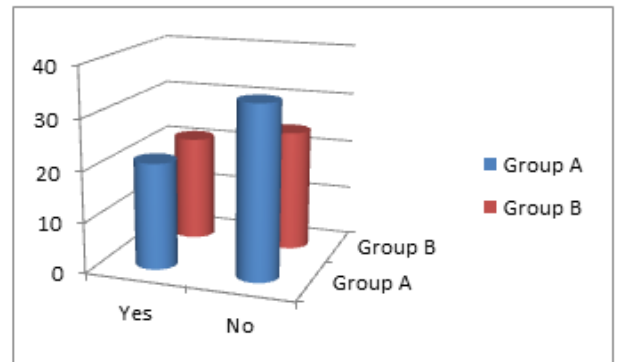


Fig 15:- 17% responded yes from Group A and 20% responded yes from Group B

Response obtained from Question number 16:  
Have you felt loosening of teeth during pregnancy?

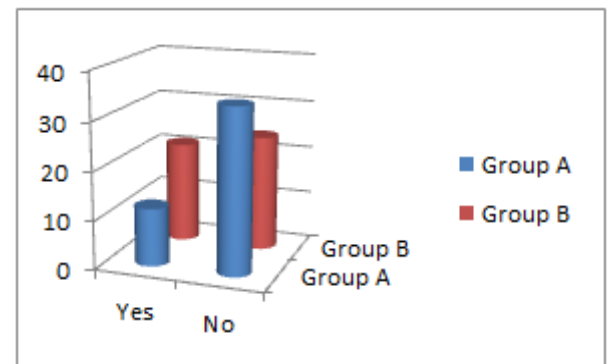


Fig 16:- 10% responded yes from Group A and 20 % responded yes from Group B

Response obtained from Question number 17:  
Did your gynecologist recommend oral checkup during pregnancy?

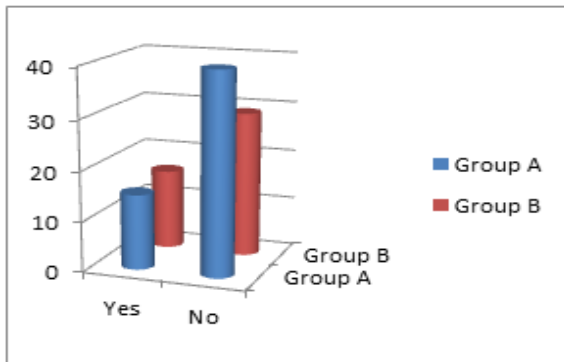


Fig 17:- 15% responded yes from group A and 10% responded yes from Group B

Response to Question number 18:  
Did you feel any taste alteration in menopause?

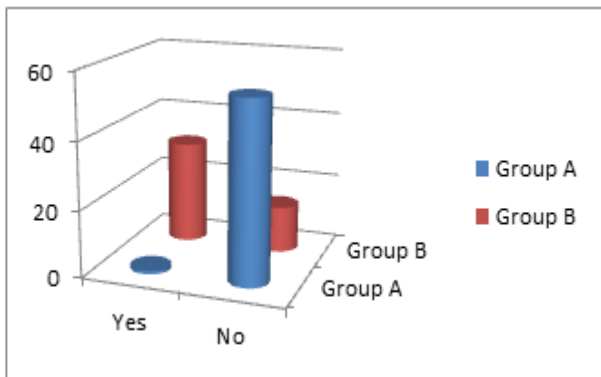


Fig 18:- 30% responded yes from Group B

Response obtained from question number 19:  
Are you aware of changes in oral health during menopause?

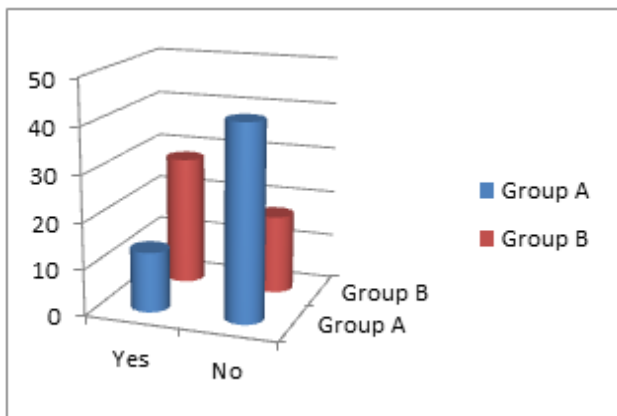


Fig 19:- 5% responded yes from Group A and 25 people responded yes from Group B

Response obtained from Question number 20:  
Are you experiencing any oral discomfort in this menopause period?

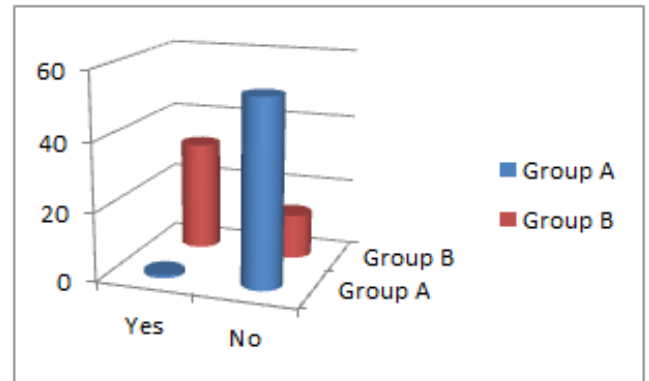


Fig 20:- 30% responded yes from Group B

#### IV. DISCUSSION

The current study was conducted to document the awareness of periodontal problems among female patients.

##### ➤ *Brushing and oral hygiene aids:*

Brushing twice daily and use of oral hygiene aids like mouth wash and dental floss are ideal for maintaining good oral health. Mouth wash prevents bad breath and decreases microbial flora, Using Dental floss reduces the chances of interdental food lodgement[4]. 25% from Group A brush twice daily and 30% from Group B brush twice daily. In contrast, 20% from Group A and 15% from Group B brush once daily. 15% from Group A and 10% from Group B use oral hygiene aids. In contrast, 30% from Group A and 35% from Group B do not use any other oral hygiene aids. Regarding the oral hygiene maintenance both age groups showed comparable results. Only a percentile of females were aware about the other dental aids apart from brushing which has to be improved. (Graph 1 2 3).

##### ➤ *Mouth breathing habit:*

Mouth breathing habit affect oral health. Mouth breathing habit leads to bad breath(halitosis) and dryness of mouth[6]. Dryness of mouth increases the chances of dental caries and gum disease[4]. 30% from Group A and 10% from Group B are aware that mouth breathing habit affects oral health. 20% from Group A, 40% from Group B are unaware of the affect of mouth breathing habit on oral health. In the present study, older age group females showed greater unawareness when compared to younger age group. The etiology of halitosis and its treatment is one aspect, we Dentist should concentrate on More awareness programme on these aspects could pave way for a better oral hygiene in a long run[3].(Graph 4)

➤ *Hormones:*

Hormonal fluctuations during different phases of women's life directly affect periodontal health[3]. 20% Group A and 10% from Group B are aware of affect of hormonal changes on periodontal health. 25% from Group A and 35% from Group B are not aware of affect of hormonal changes on periodontal health. There was a generalized decreased awareness among both the groups. Females should be educated about the various hormones, which play a major role in their life cycle and its impact on oral health[5]. They should be educated about the maintenance of hygiene to decrease periodontal diseases [18].(Graph 5)

➤ *Anemia:*

Anemia refers to reduced hemoglobin levels which leads to paleness of gingiva, tongue and mucosa, depapillation of tongue etc[4]. 25% from Group A and 40% from Group B are anemic. 25% from Group A and 10% from Group B are not anemic. 10% of anemic patients noticed paleness of gums. Anemia is one of the prevalent disease affecting the Indian women, oral findings give a better clinical diagnosis [9]. (Graph 6).

➤ *Puberty:*

Enhanced level of gingivitis occurs during puberty due to increased level of steroid hormones[3]. Gingiva appears to be the target organ for steroid hormones[5]. During puberty, *Prevotella intermedia* and *capnocytophaga* are common organisms seen in oral cavity[7]. Due to bacterial deposits and increased level of sex hormones, females may experience some gingival disturbances like swelling, color changes and pain[9]. 15% from Group A and 10% from Group B experienced these changes. In contrast, 30% from Group A and 35% from Group B did not experience these changes. Female patients should be briefed about changes in the gingival features during menstrual cycle and should be taught to maintain their hygiene[11]. (Graph 7 8 9)

➤ *Pregnancy:*

Pregnant women experience gingivitis and periodontitis due to elevation in the level of steroid hormones like estrogen and progesterone [6]. These hormones increase the blood flow to the tissues which exaggerates the reaction of gingival tissues towards plaque and deposits [7]. They may experience some problems like foul smell and loosening of teeth, localized gingival enlargements like pregnancy tumor during this period[2]. Thus Gynaecologists should advice patients regarding maintaining good oral hygiene and regular dental checkups during pregnancy [1]. 35% from Group A and 15% from Group B are aware of maintaining good oral hygiene and importance of dental check up during pregnancy. In contrast, 15% from Group A and 35% from Group B are not aware of maintaining good oral hygiene and importance of dental check up during pregnancy. 25% from Group A and 30% from Group B felt that dental treatment may affect new born, in contrast, 25% from Group A and 10% from Group B did not feel that dental treatment may affect new born. 17% from

Group A and 20% from Group B felt difficulty in maintaining good oral hygiene. 10% from Group A and 20% from Group B felt loosening of teeth. 10% from Group A and 15% from Group B were asked by gynecologists to visit dentist. Pregnant women should be briefed about the importance of dental checkup[15]. They should be explained that dental treatment is safer during second trimester[16] (Graph 10 11 12 13 14 15 16 17)

➤ *Menopause:*

During menopause, hormonal levels decline which leads to discomfort in oral health like dryness of mouth, burning sensation, taste alteration[17]. 30% from Group B experienced these changes in oral cavity. Atrophic gingivitis is one prevalent gingival disease which can be controlled, if patients were briefed about the changes in gingiva and taught to maintain good oral hygiene[4]. (Graph 18 19 20)

## V. CONCLUSION

The present study shows that there is no awareness about periodontal problems among female patients. Comparatively most of the patients from Group A have more awareness than Group B. We recommend that patients should attend several oral health education programs arranged by dentists and gain knowledge about several changes occurs during their different stages of life.

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