

**Research Article****Awareness of Pregnant Females and Mothers Regarding Breastfeeding and its Effects on Oral Health and Occlusion among Children**Sampat SV<sup>1\*</sup>, Hegde AM<sup>2</sup><sup>1</sup>Post Graduate Student, Department of Pedodontics and Preventive Dentistry, A.B. Shetty Memorial Institute of Dental Sciences, Deralakatte, Mangalore 575 018, Karnataka, India<sup>2</sup>Senior Professor and Head of the Department, Department of Pedodontics and Preventive Dentistry, A.B. Shetty Memorial Institute of Dental Sciences, Deralakatte, Mangalore 575 018, Karnataka, India**\*Corresponding author**

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**Abstract:** The aim of the study was to evaluate the awareness of pregnant females and mothers regarding breastfeeding and its effects on oral health and occlusion among children. The study included a total of 120 females, visiting as outpatients in various wards like that of Obstetrics and Gynecology and Paediatrics, K.S. Hegde Hospital and Pedodontics and Preventive Dentistry, A.B. Shetty Dental Hospital, Mangalore. A questionnaire was designed and filled wherein all females were interviewed in detail after taking proper consent. In this study the mean age of sample was 31 years, the study shows that almost all mothers (100%) considered breastfeed to be the best for their child but (91.7%) considered 6 months to be the duration of exclusive breastfeeding. Very few were mothers (88.3%) were counseled regarding benefits of breastfeeding by doctors. 25% did bottle feeding to their child and more than half (48.3%) of them knew about the benefits of breast feeding on oral health of the child. Majority of them (66.7%) were unaware that improper breastfeeding can develop malocclusion in children. There is very little awareness regarding the benefits of exclusive breast feeding on preventing malocclusion. The proposed study strived to identify the barriers in breast feeding and reveal to the parents its effects on occlusion in order to prevent in a timely manner as malocclusion are not only very problematic to treat but also expensive.**Keywords:** Breastfeeding, occlusion, Children

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**INTRODUCTION**

The benefits of Breastfeeding rendering nutritional, immunological and psychological benefits to the child are unequivocally recognized. However breastfeeding plays a crucial role in development of cranio-facial complex which includes jaws, dental arches, facial muscles and tongue [1, 2]. Apart from general health benefits exclusive breastfeeding for first six months of life is essential for development of physiological functions like phonation, mastication and deglutition. Breastfeeding gives a sense of psychological benefit to both mother and child. The mechanism of suckling involves compression of the breast by the infant's jaw and a peristaltic action of the tongue to express milk into the mouth during breastfeeding [3]. During this mechanism it provides greater oral muscle exercise over bottle feeding [4, 5] and aids in development of facial muscles and temporomandibular joint as well.

However many a times the weaning is done early because of factors like insufficient breast milk, unfavorable breast anatomy, mother's lack of interest,

emotional problems, end of maternity leave or other health problems [6, 7]. Due to this reason the child is predisposed to bottle-feeding as the milk is obtained more easily there causing the baby to gradually reject the breast. Bottle feeding lacks the physiological suction as there is no stimulus in oral-motor-sensory area. This leads to hypotonia of perioral and lingual musculature causing deformation in dental arch and palate [6, 7] which in turn harms the function of mastication, deglutition, respiration and articulation. As the nutritive urge is not satisfied children may resort to non-nutritive sucking habits like digit sucking and pacifier sucking which has deleterious effects on developing teeth leading to malocclusion [8, 9] like anterior open bite and posterior cross bite. Breastfeeding per se doesn't have effect on occlusion directly but the habits developed as result of insufficient feeding causes malocclusion [10].

**Aim and objective**

To evaluate the awareness of pregnant females and mothers regarding breastfeeding and its effects on oral health and occlusion among children

## MATERIALS AND METHODS

120 healthy pregnant and lactating women, who attended women consultations and clinics in Department of Obstetrics and Gynecology and Paediatrics, K.S. Hegde Hospital and Pedodontics and Preventive Dentistry, A.B. Shetty Dental Hospital, Mangalore, were examined for a period of 15 days. The age of women varied from 22 to 35 years. A set of questions multiple-choice answers was personally given to these women. The respondents were asked to tick the most appropriate answer from the list of given answers. A printed questionnaire was distributed both in English and local language for their better understanding and help was also provided to few uneducated respondents to read and understand the questions.

The nature and purpose of the study was explained, its voluntary nature was emphasized and strict confidentiality was assured. Once the questionnaire was answered the importance of breastfeeding on occlusion of children was explained. A filled questionnaire with responses was thus collected immediately and computed. Descriptive statistical analysis of the data was performed using the Statistical Package for the Social Sciences.

## RESULTS

All the participants think that breast feeding is mandatory for infants. 88.3% of pregnant and lactating mothers had received proper medically counseling regarding the technique and benefits of breastfeeding. 91.7% knew that duration of exclusive breastfeeding should be 6 months and around 5 % of women were completely clueless about this. Around 71.7% felt that duration of breastfeeding should be around 2 years and remaining felt it should be less than that. When asked about the reason for stopping breast feeding 25% said because of their will, around 21.7% stopped because of insufficient milk whereas remaining reasons were consecutive pregnancy, lack of knowledge and minority (3.3%) were working mothers. 75% of participants did not do baby bottle feeding whereas 16.7% knew that they should start bottle feeding after 6 months and 20% agreed that they will continue bottle feeding ad libitum of child. 48.3% of them feel that breast feeding leads to development of favorable occlusion in children however 38.3% did not know about this fact. 46.7% of participants agreed that bottle feeding had harmful effect on occlusion whereas 43.3% were not sure about this. When questioned regarding specific open bite malocclusion caused due to bottle feeding 66.7% participants were not aware about this. 66.7% women didn't know that bottle feeding have deleterious effect on permanent teeth as well. None of the participants used pacifiers for the child however 30% agreed that it might cause malocclusion. 55% had no idea regarding pacifier and malocclusion. 93.3% women accepted that they needed more information regarding breastfeeding and its effect on occlusion in children.

## DISCUSSION

Breastfeeding is an important natural process that offers irreplaceable advantages to the development of physically and psychologically healthy child. Therefore, it should be encouraged in the first six months of life as the child's main source of food, followed by continued breastfeeding for at least 2 years [11]. It has been observed that weaning in the initial stage of the child's life frequently occurs. There is a need for guidance with regard to the importance of the practice of natural breastfeeding and an adequate pattern of suction, as a form of prevention against diseases in general and oral health, as well as to promote orofacial development [12].

The present study provides information awareness of pregnant females and mothers regarding breastfeeding and its effects on oral health and malocclusion among children. On evaluating the questionnaire filled by the subjects' results showed that knowledge and attitude of pregnant women and lactating mothers regarding breast feeding and its effects on occlusion in children was not satisfactory. Persistent non-nutritive sucking habits had lead to development of malocclusion like Anterior open bite and posterior crossbite [13, 14]. Lejovic and Ostric recorded a prevalence of 34.2% of malocclusion in non-breastfed children [5]. In several other studies where children done in Noudy rth America and Brazil wherein the children did not give any history of non-nutritive sucking habits the prevalence value of anterior open bite was 0% and 1 % respectively [15, 16]. Similar studies done in South Canara (India) and in USA the prevalence of anterior open bite was 5.25% and 6.1% respectively [17, 18]. We see that lack of breastfeeding causes development of non-nutritive sucking habits which in turns leads to malocclusion among children. Of the utmost importance is emphasizing the need for excellent preventive dental care. Recommendations have to be made to improve the awareness regarding breast feeding thereby contributing the better oral health of infant.

## CONCLUSION

Our study reveals that the awareness and attitude of Pregnant and lactating mothers towards breast feeding and its effects on occlusion in children is not satisfactory and they are unaware about benefits of breastfeeding on oral facial complex.

## Recommendations

- Antenatal guidance should be given to all pregnant women regarding initiation and duration of exclusive breast feeding for first 6 months.
- Bottle feeding should be discouraged and infant should be encouraged to drink from cup by age of 1 year.
- Use of pacifiers and other dummies should be minimal.

- Mass campaigning and education of pregnant and lactating mothers regarding beneficial effects of Breastfeeding on dento facial health should be done.

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