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## Research Article

# KNOWLEDGE, ATTITUDE AND PERSPECTIVE ON BRUSHING STATUS OF PRESCHOOL CHILDREN IN RURAL AREAS- KANCHIPURAM DISTRICT

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### ABSTRACT

**Aim:** To study the brushing status of preschoolers in rural areas- Kanchipuram district

**Introduction:** Tooth brushing habits which is learnt in the early stages of life, is deeply inculcated in the minds of children. It is expected that it leads to a good oral hygiene in their later life. This study aimed to evaluate oral hygiene practices and brushing status among pre-schoolers of Kanchipuram district.

**Materials and Method:** The survey was conducted for 50 preschool children from Kanchipuram district. The survey was conducted online through survey planet and the link was sent to their parents. The questionnaire consisted of 10 questions asking about the brushing status of their child. The results and percentage were evaluated.

**Results:** Most of the pre-schoolers do not follow proper brushing habits. Only 22% of pre-schoolers brush twice a day. 56% of pre-schoolers spend only 5 minutes in brushing. Only 78% of them use fluoridated toothpaste and the remaining 22% of them use non-fluoridated toothpaste, which is one of the reasons for prevalent dental caries. 68% of children follow horizontal system of brushing and the remaining 32% do not follow any systematic method.

**Conclusion:** Many parents were also unaware of dental caries and gingival diseases. Parents were not proactive in ensuring proper dental care to their children. Thus proper brushing technique and oral hygiene maintenance must be inculcated in pre-schoolers.

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## INTRODUCTION

Lack of oral hygiene can lead to various dental problems. Diseases affecting the teeth or oral cavity is one of the major problems which can cause a significant impact on health[1]. Studies on oral health awareness in rural areas shows the lack of awareness among them[2] School Children learning good habits will help them to follow healthy habits throughout their life time. School Children can act as a catalyst in bringing about desirable changes in the family[3]. It is the primary concern of oral health educators to impart a positive oral health knowledge and behaviour in the society. Proper brushing and flossing are practices to maintain good oral health, along with regular dental visits[4]. Inadequate tooth brushing and inappropriate oral hygiene can lead to dental caries, the most common chronic diseases of childhood with several side effects. It is a prevalent dental problem among children [5], as they consume lots of sweets and aerated drinks. Brushing and flossing are practices to maintain good dental health, along

with regular dental visits[6]. Oral health knowledge is essential for proper oral hygiene and better oral health[7]. For appropriate oral hygiene, dental flossing, tooth brushing [8], regular dental visits, and preventive dental procedures such as fissure sealant and fluoride therapy [9] are recommended. It is suggested that parents brush their children's teeth twice daily with a soft toothbrush of age-appropriate size and fluoridated toothpaste. It should be started early in life as soon as the first primary tooth erupts. Various methods are employed to maintain oral hygiene, of which the most common is toothbrushing.[10] It is an effective way of removing plaque, preventing gingivitis, and also managing dental caries.[11] However, the value of uncontrolled toothbrushing in prevention of dental caries has always been questioned.[12] Effective plaque removal depends not only on the type of toothbrush but also on the proper brushing technique.[13] Because basic information about the present oral status of the children is necessary to implement strategies to improve it, this study was designed to determine factors affecting on preschool children's

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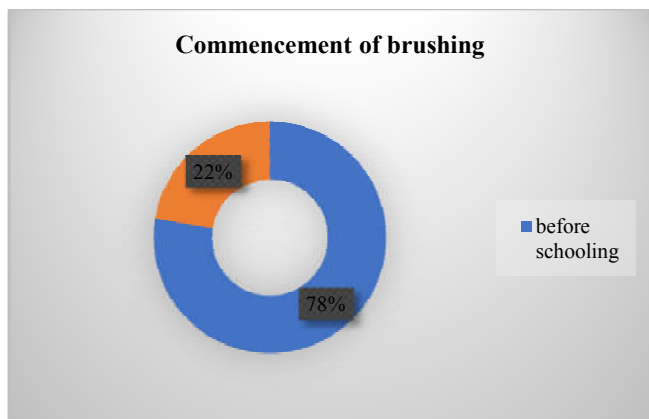
oral hygiene and tooth brushing. The prime objective of the study was to boost proper oral health through supervised brushing among pre-schoolers in Kanchipuram district.

### MATERIALS AND METHOD

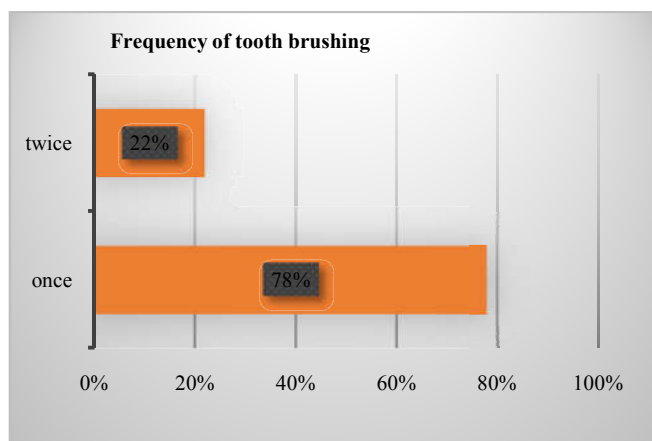
The survey was conducted for 50 preschool children from Kanchipuram district. The survey was conducted online through survey planet and the link was sent to their parents. The questionnaire consisted of 10 questions asking about the brushing status of their child. The results and percentage were evaluated.

### RESULTS AND DISCUSSION

The data obtained were statistically analysed using pie charts. 78% of pre-schoolers started brushing before schooling itself. 22% of them started brushing after schooling. Many parents said that they don't visit dentist because they don't have any dental pain. The results also showed that a majority of group are aware that sugary diet, soft drinks, chocolate can affect oral health respectively. The questionnaire also highlighted the importance of parental awareness and participation in oral hygiene practices.

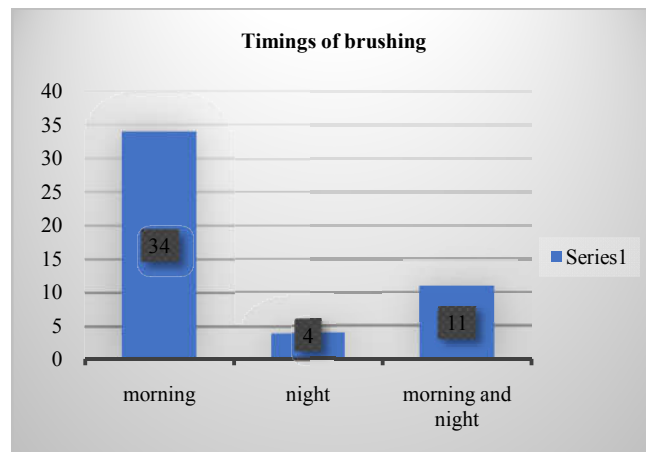


78% of pre-schoolers brush only once a day. Only 22% of them brush twice a day. This shows poor brushing habits in pre-schoolers of rural areas. Classroom was considered an ideal setting to conduct supervised toothbrushing program, especially in rural areas where oral health facilities are meagre and rarely parents are concerned of their children's toothbrushing behaviour. However, a study by Lindhe and Koch [14], concluded the impracticability of prolonged careful supervision of toothbrushing behaviour.

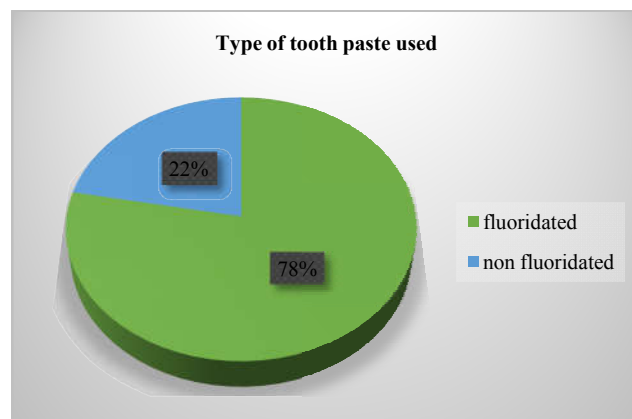


69% of them brush in the morning only. Rest 23% brush both morning and night. Around 8% of the children brush only at night. Salivary calcium levels are most minimal in the morning. Subsequently, your teeth are at a considerably higher danger of acidic harm from microorganisms and dietary acids in the morning than at whatever other time. Brushing stimulates salivary secretion that has been diminished overnight and includes fluoride to the blend which will help cushion against acids.

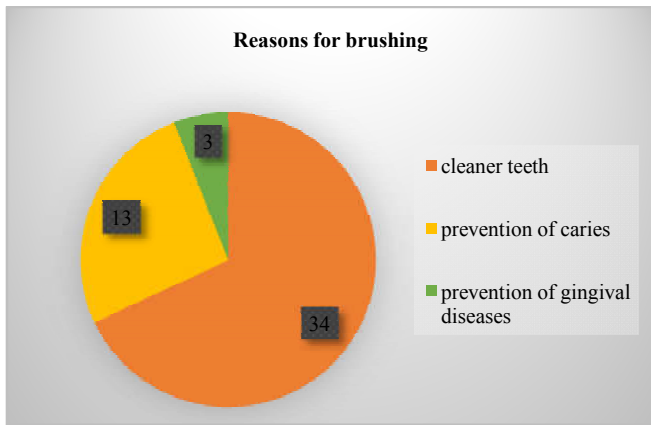
However it is advisable to brush during morning as well as night. Young children exhibit behavior that make them more vulnerable to dental caries, such as a low frequency of daily brushing.



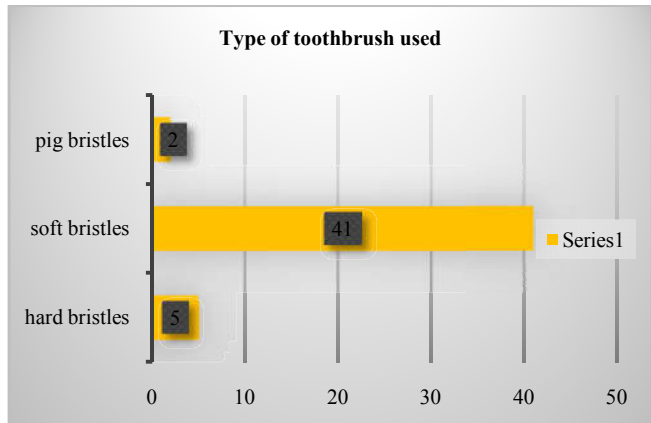
78% of pre-schoolers use fluoridated tooth paste. Fluoride is known to protect our teeth from dental caries. Remaining 22% of them use non-fluoridated toothpaste. Improper toothbrushing techniques may increase gingival recession and loss of tooth substance by mechanical abrasion, and must therefore be corrected. Fluoride ions have antimicrobial effects but it is concentration-dependent.



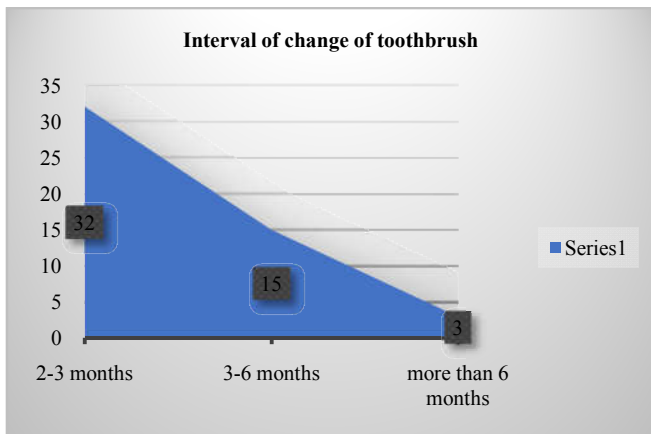
Some, being afraid of the side effects of fluoride when used in large quantities, use non-fluoridated toothpastes like herbal toothpastes. One side effect from swallowing too much fluoride is dental fluorosis. 68% of parents feel that brushing is necessary for cleaner teeth. 26% of parents think that brushing helps in prevention of dental caries. 6% of them feel that brushing helps in prevention of gingival diseases. Decaying of tooth and gingival disease are among the most widespread conditions affecting over 80% of school children [16].



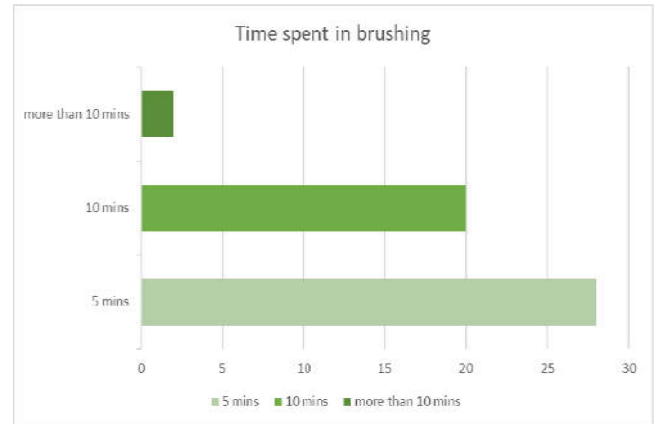
86% of parents use soft bristles tooth brush for their children. 10% of them use hard bristles and remaining 4% use pig bristles for their children. Soft-bristled or pig bristled brushes are safer for teeth as hard bristled brushes can damage the tooth enamel. Soft, rounded bristles are the best choice for removing plaque without damaging teeth. A perturbing result came out when parents were asked about various questions on dental knowledge. Only few were able to answer that plaque means soft deposits on teeth.



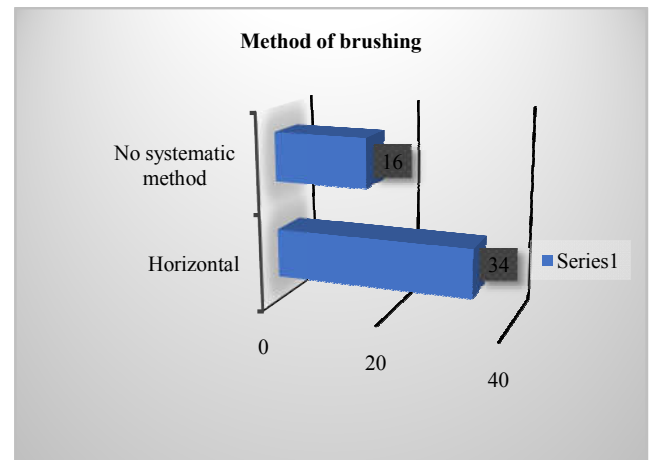
64% of parents change their child's toothbrush in an interval of 2-3 months. 30% of them change their brush in an interval of 6 months. 6 % of them change their toothbrush in an interval of 6 months or more. Dentists recommend changing children's toothbrush about every three months, the American Dental Association (ADA) recommends replacing our toothbrush approximately every three to four months, or sooner if the bristles are frayed.



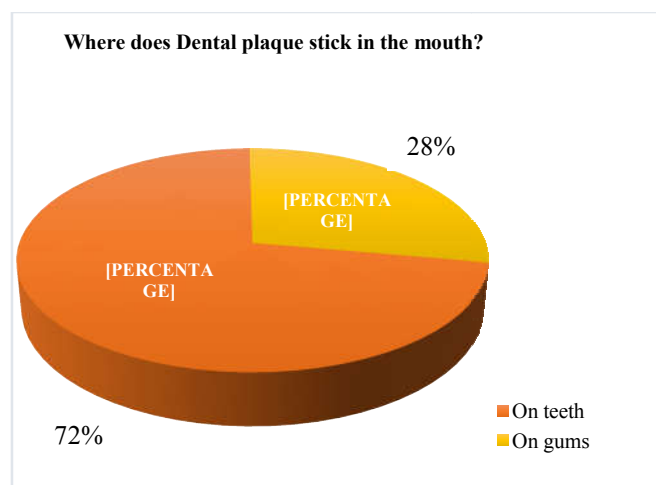
56% of pre-schoolers spend only 5 mins in brushing. 40% of children spend 10 mins and only 4% of them spend more than 10 mins in brushing. Duration of toothbrushing is known to produce the strongest effect on plaque removal and should be emphasized in dental health education [15]. Hence, children were advised to brush twice daily for 2 min with bass method, thereby controlling the type of toothbrush and dentifrice, and the frequency and method of toothbrushing.



68% of children follow horizontal method of brushing. 32% of them do not follow any systematic method in brushing. Effective plaque removal depends not only on the type of toothbrush but also on the proper brushing technique. The appropriate brushing technique for preschool children is the Fones Brushing Technique. It involves making big circles which are reduced in diameter until very small circles are made in front of the mouth.



72% of parents felt that Dental plaque sticks on the teeth of their children. 28% of them said it sticks on the gums. Improvement in oral hygiene is a result of proper brushing habits and the frequency. A well-balanced diet is also essential for proper oral hygiene. Frequent snacking and consumption of aerated beverages can have a detrimental effect on teeth. All these can form a conducive environment for dental caries.



## CONCLUSION

Many parents were also unaware of dental caries and gingival diseases. Parents were not proactive in ensuring proper dental care to their children. Dental caries and other oral diseases are prevalent in pre-schoolers of Kanchipuram district. Thus proper brushing technique and oral hygiene maintenance must be inculcated in pre-schoolers.

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