



# Awareness of Tooth Brushing Techniques and Proper Oral Hygiene among Children Attending Sub District Hospital Pampore

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## Abstract:

**Aim:** To study the status of tooth brush techniques and proper oral hygiene among children at a Sub District Hospital Pampore.

**Methods:** A cross sectional questionnaire-based study was conducted at Sub District Hospital Pampore, from September to November 2017. It was administered in English and Urdu, depending on patient's comfort ability. With the permission from BMO Pampore oral hygiene questionnaire was explained to the children 550 which involved around 15 questions. Mentally retarded, physically handicapped and medically compromised children were excluded from study. Later questionnaire was given to the children at the start of the study and collected at the end of the study.

**Conclusion:** A need exists to educate public on oral hygiene care through education programs in schools and media. Preventive dental care is a neglected area that requires attention on an urgent basis.

**Keywords:** prevalence, brushing and oral hygiene

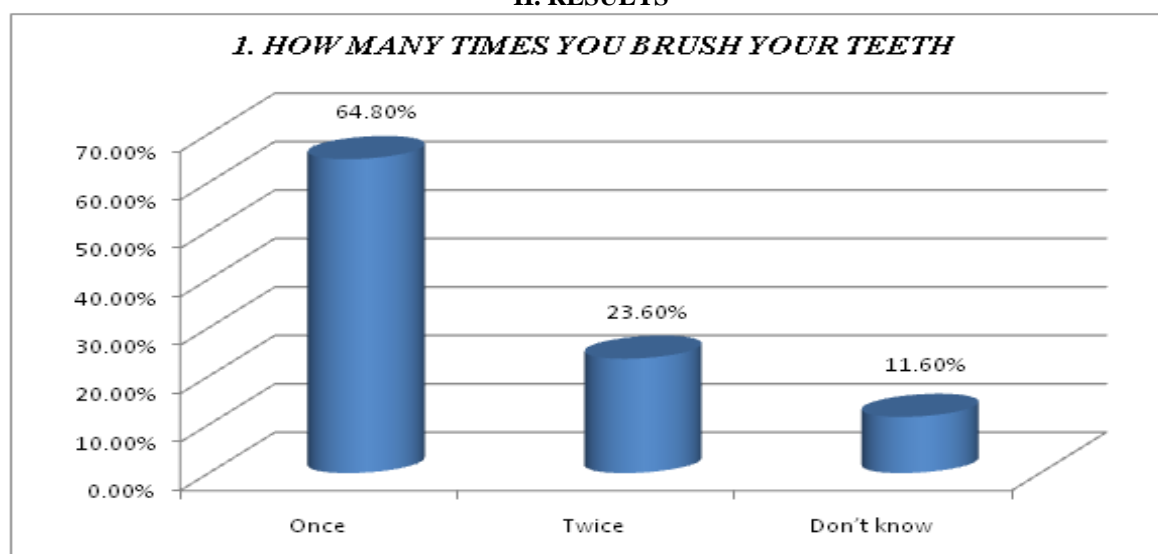
## I. INTRODUCTION

Around the world dentists and public/private sector hospitals recommends regular daily tooth brushing for an improved oral health, preventing periodontal disease and caries<sup>1</sup>. Oral health care is a mirror for general health and well-being.<sup>2</sup> The prevalence of caries is related to a low frequency of brushing and a higher consumption of sweets. Also consumption of fluoridated water coupled with a reduction in non-milk extrinsic sugar intake, is an effective means for caries prevention.<sup>3</sup> Poor oral and dental health has also been linked to heart and lung disease, diabetes, stroke, low-birth weight, and premature births. Often, diseases give their first warning signs in the form of oral problems. A majority of the Indians are unaware of the fact that good oral health not only ensures freedom from pain and suffering associated with oral health

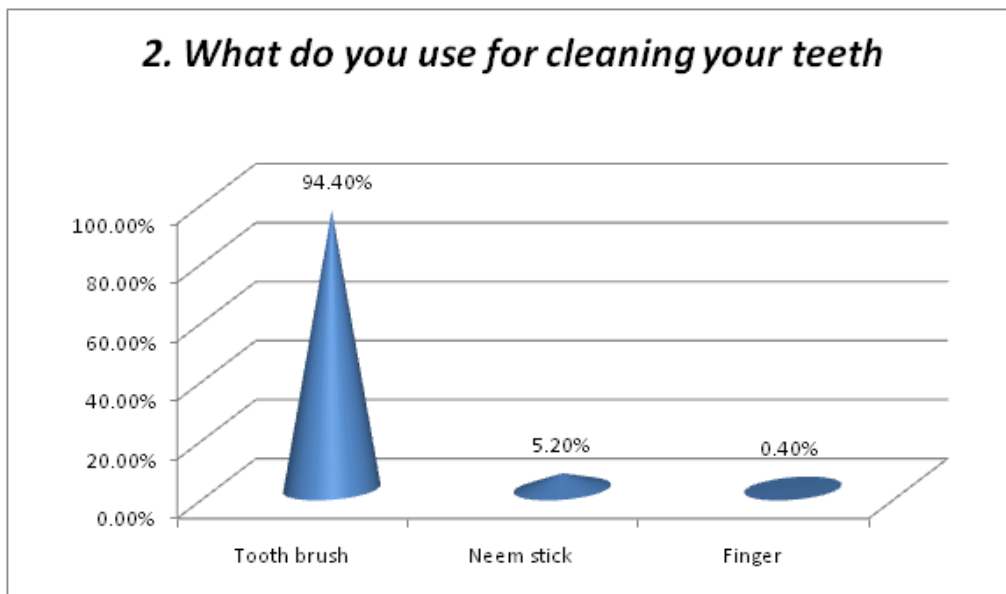
problems, but is also essential for the overall health improvement and elevation of self-esteem, quality of life, and performance at work.<sup>4</sup> Oral hygiene if adopted properly can help get rid of oral diseases. Many studies have proved that better knowledge in oral health practices and their attitude are linked to good habits with healthier oral cavity.<sup>5</sup>

**Methods:** A cross sectional questionnaire-based study was conducted at Sub District Hospital Pampore, from September to November 2017. It was administered in English and Urdu, depending on patient's comfort ability. With the permission from BMO Pampore oral hygiene questionnaire was explained to the children 550 which involved around 15 questions. Mentally retarded, physically handicapped and medically compromised children were excluded from study. Later questionnaire was given to the children at the start of the study and collected at the end of the study

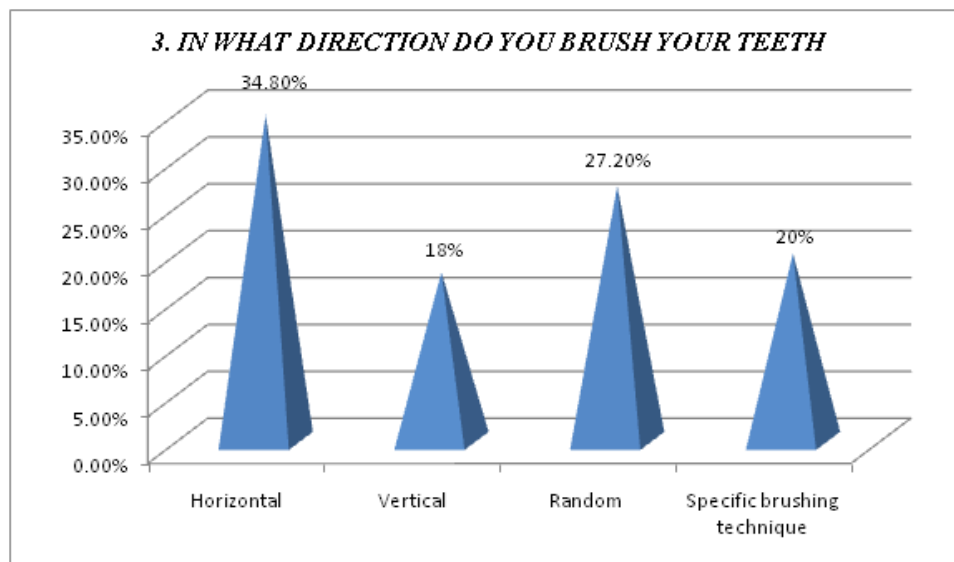
## II. RESULTS



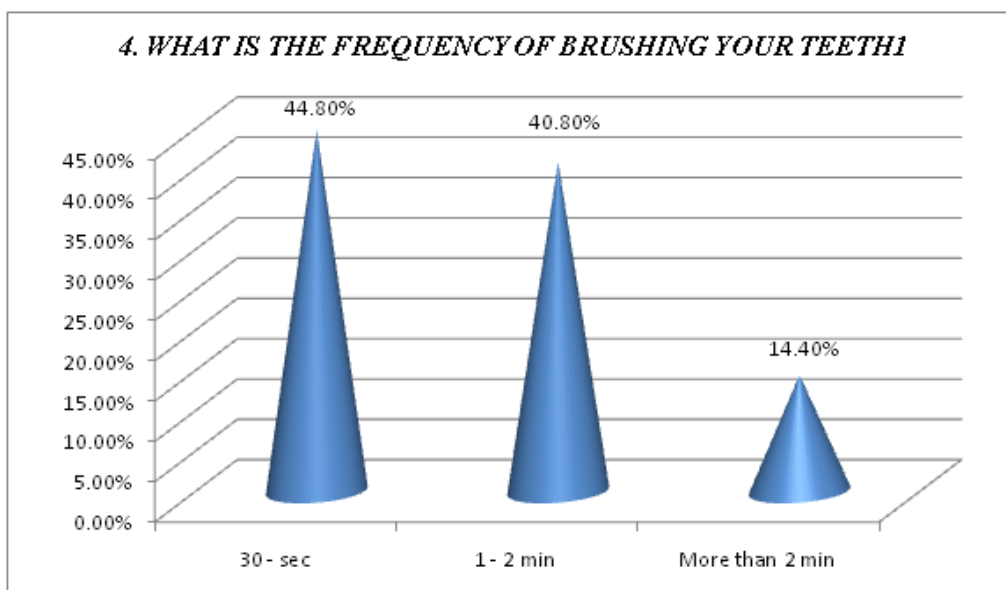
**Graph.1.** (23.60%) brush their teeth twice a day, while 64.80% brush once daily. The rest 11.60% are not sure about their brushing practice



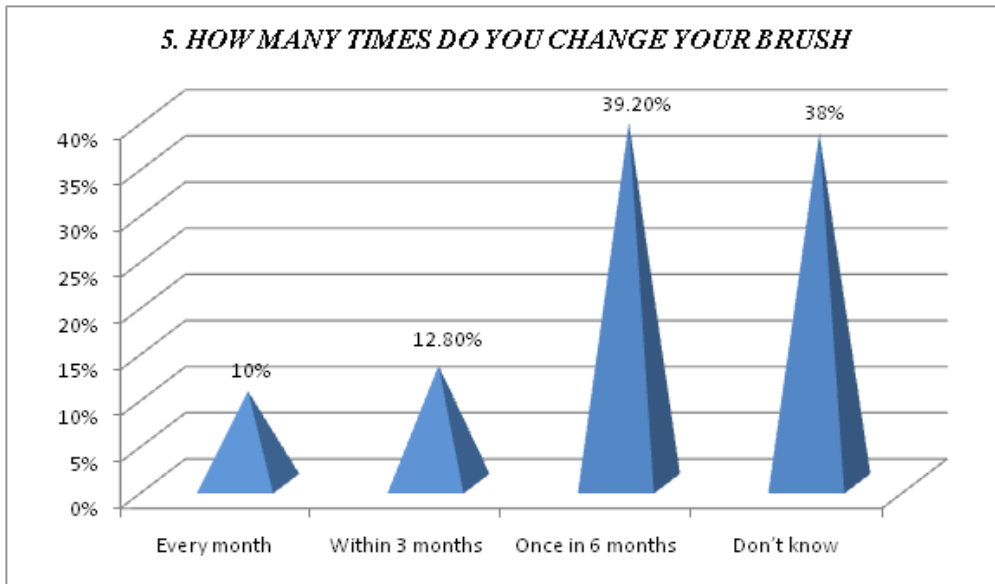
**Graph.2.** Majority of students (94.4%) practice brushing with tooth paste, only (5.20%) use neem stick for brushing their teeth. The rest 0.4% i.e. uses his hand for brushing



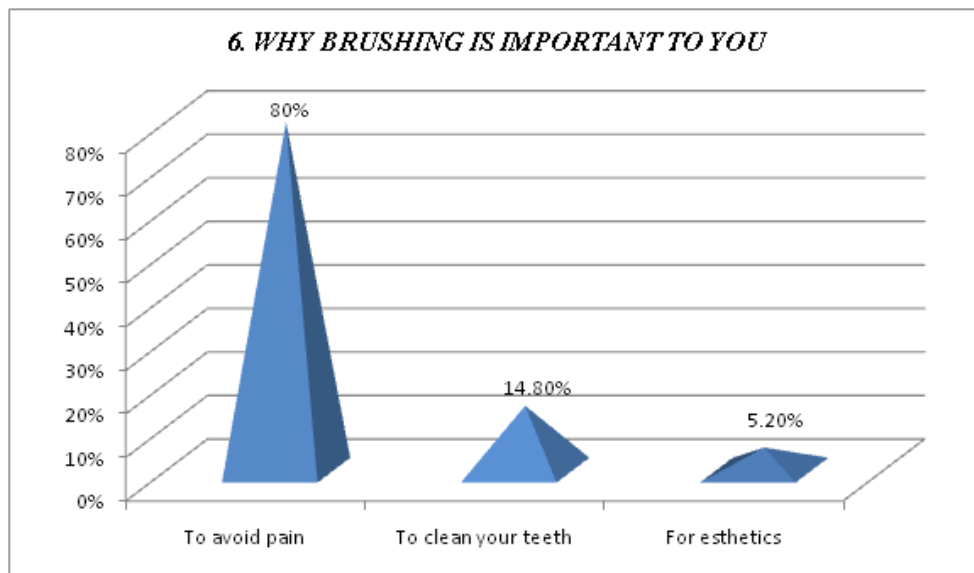
**Graph.3.** 34.80% of population use random direction method to brush their teeth, only few (i.e.) 20% follow specific tooth brushing techniques



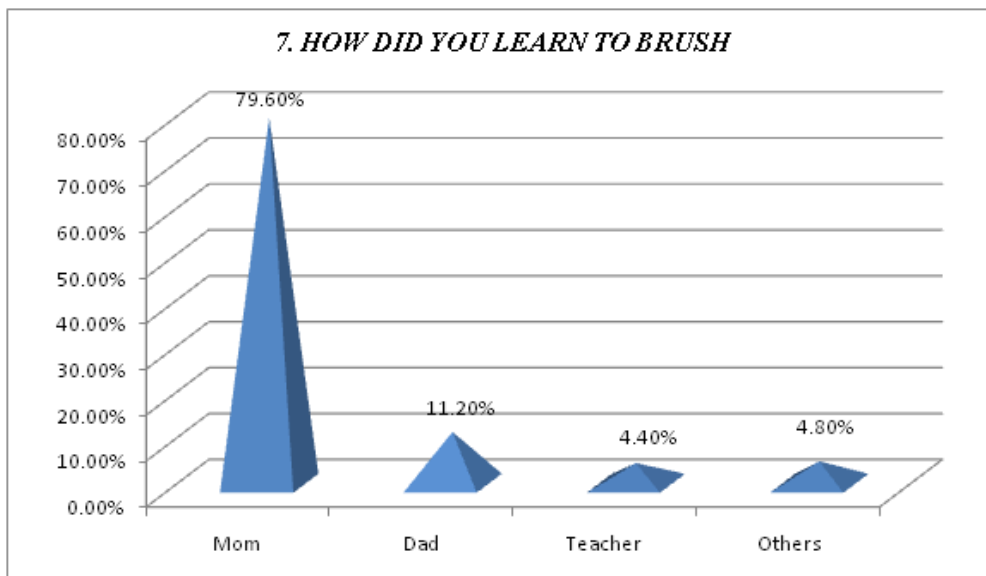
**Graph.4.** 44.80% of population said that they brush for 30 seconds and 40.80% brush 1- 2 minutes, 14.40% brush their teeth for more than 2 minutes.



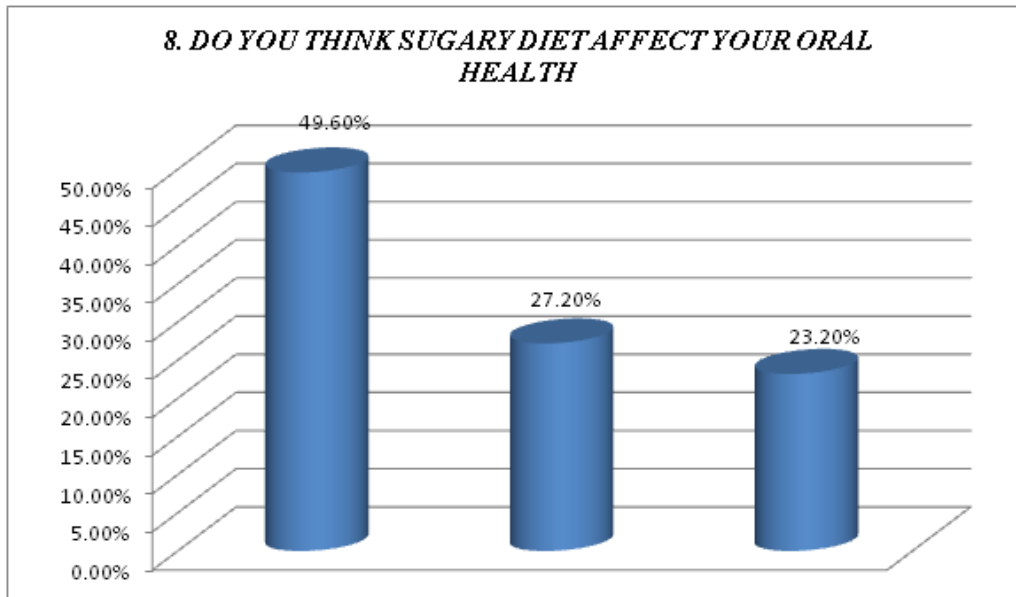
**Graph.5.** 39.20% change their brush once in 6 months and 10% change their brush every month, 38 %had no reckoning of the event ques.



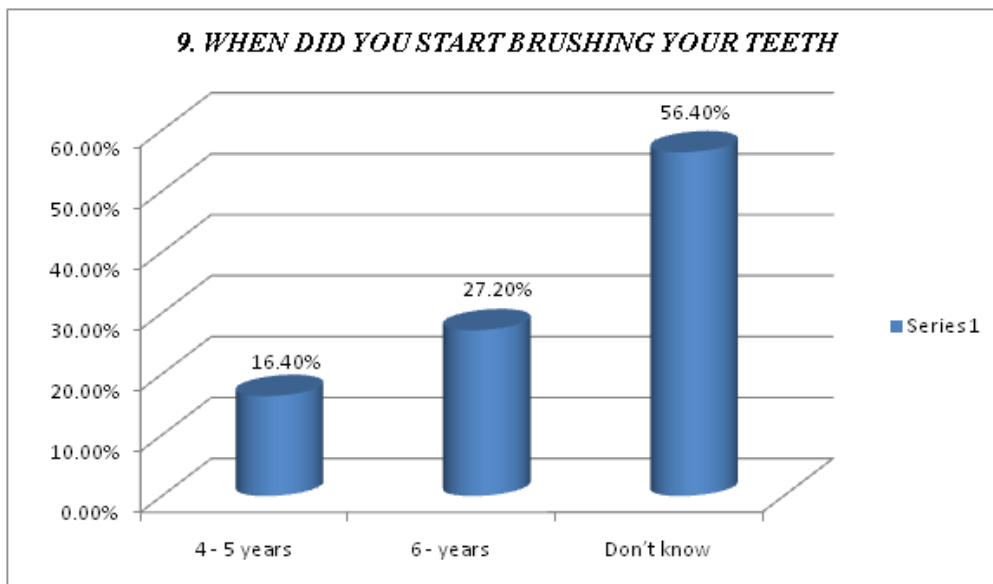
**Graph.6.** 14.80% of population brush their teeth to keep it clean, While 80% students brush to avoid pain and only few students (5.20%) said that it is important for their aesthetics



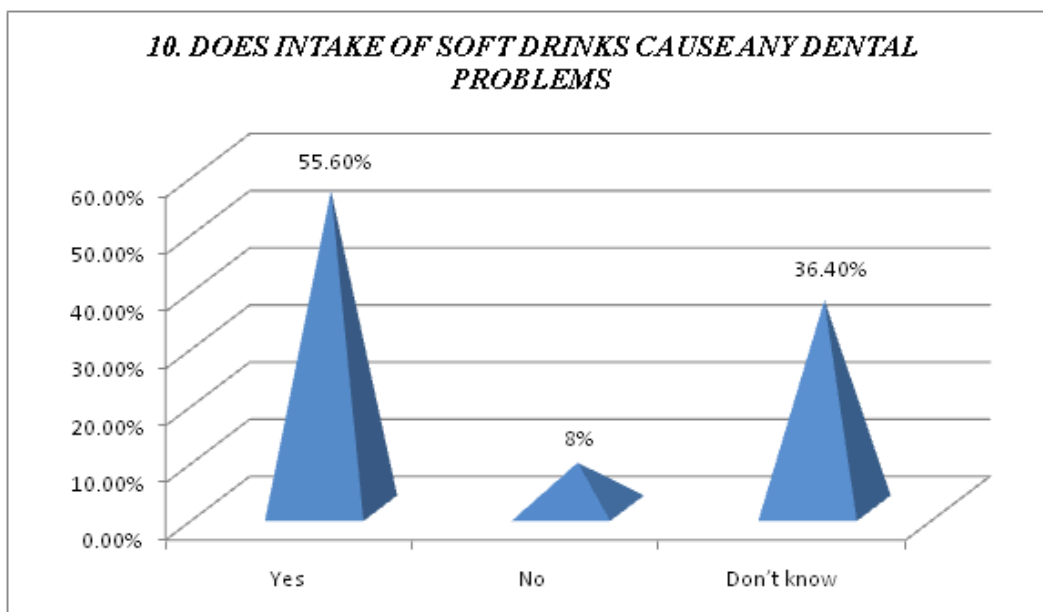
**Graph.7.** 79.60% of population said that their mom taught them to brush, whereas 11.20% said that they learnt from their dad and 4.40% of students said that their teacher taught them to brush, 4.80% were not aware how they learnt to brush.



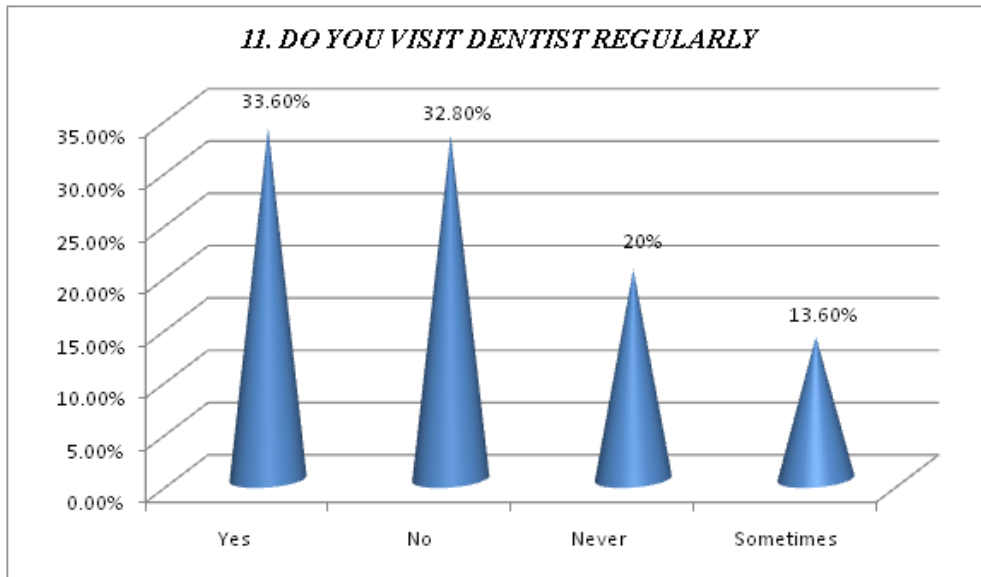
**Graph.8.** 49.60% of population know that sugary diet will affect their oral health while 27.20% said it will not cause any problems and rest 23.20% of population were not aware that sugary diet will cause them oral health problems.



**Graph.9.** Majority of population 56.40% doesn't know when they started brushing.



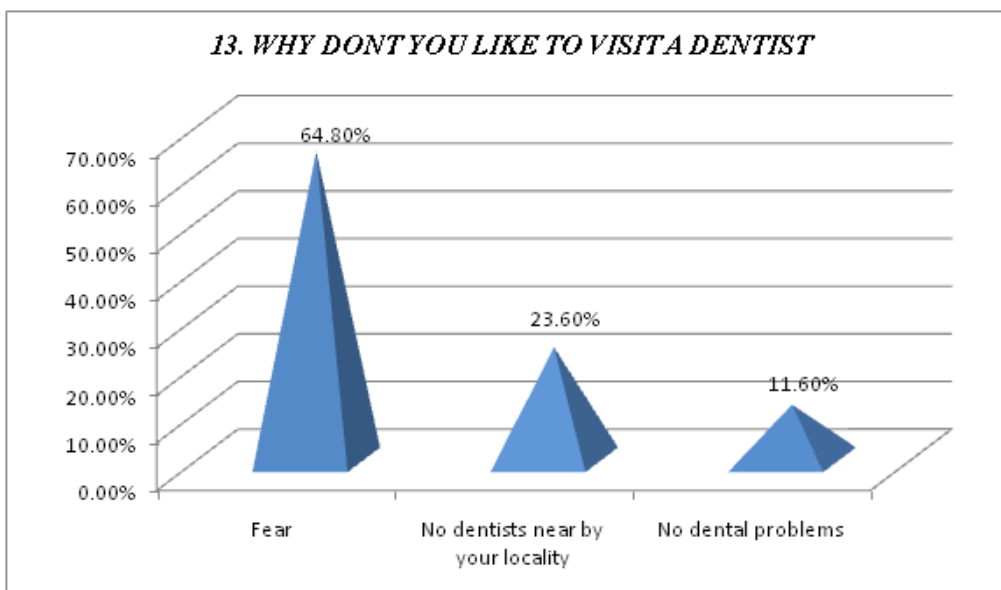
**Graph.10.** 55.60% of population know that soft drinks will cause dental problems while 36.40% said it will not cause any problems and rest 8% had no idea whether it may cause dental caries or not.



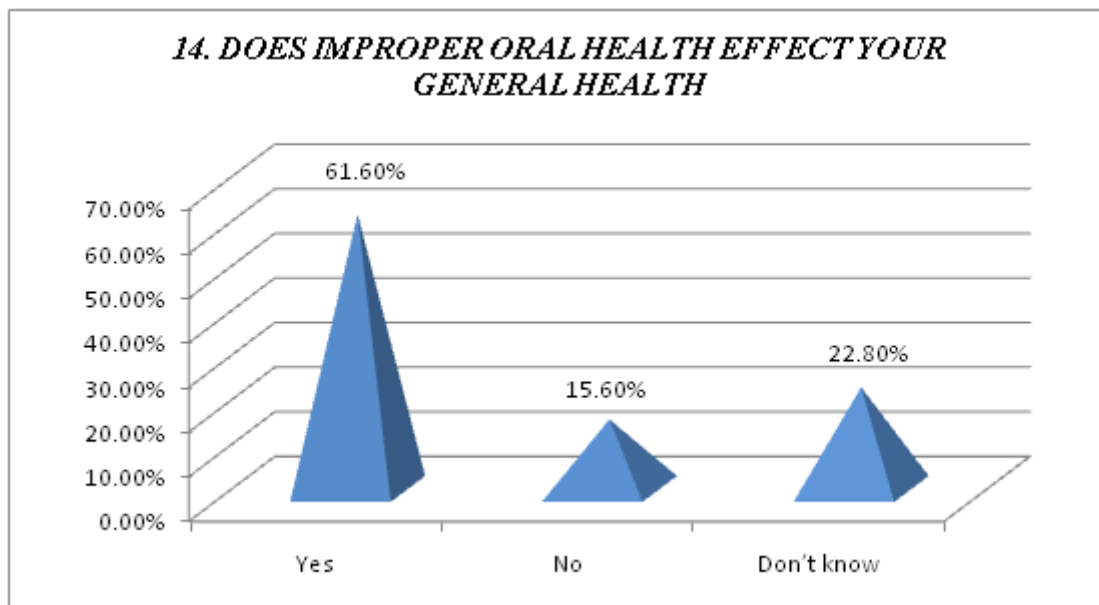
**Graph.11.** 33.6% of population visit dentist regularly while 32.80% don't visit regularly, 20% said that they had never been to a dentist and rest 13.60% said that they visit a dentist rarely.



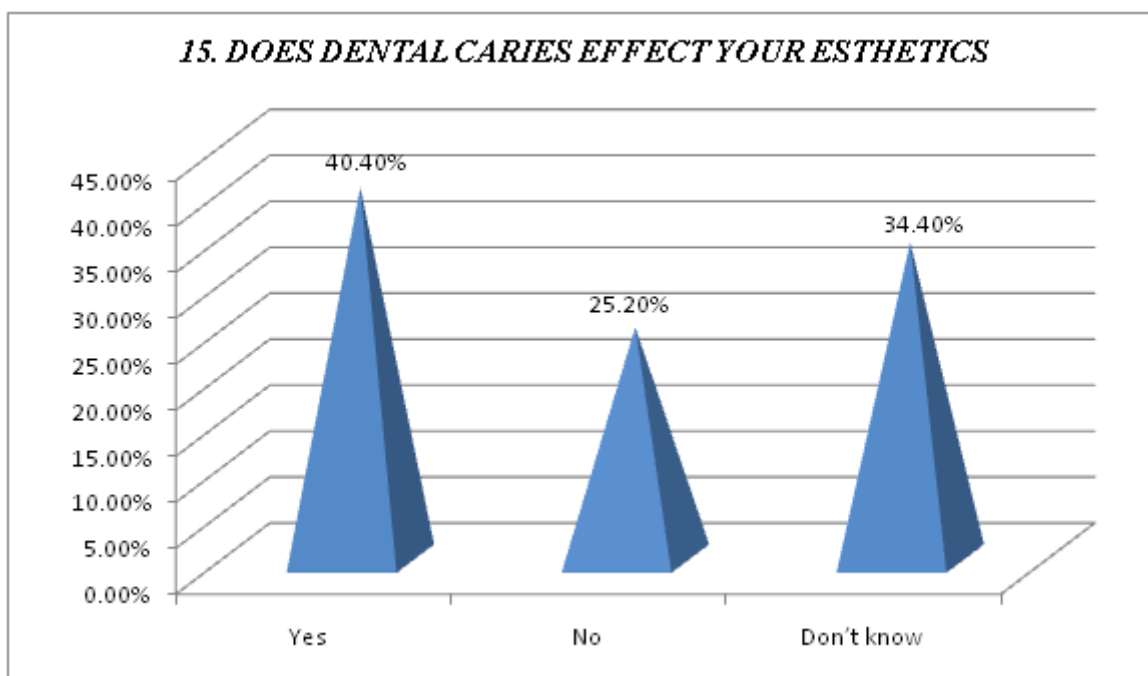
**Graph.12.** 21.2% had a dental consultation 3 months ago while 45.4% a year ago and the rest 32.4% recalled their exact visit to the dentist and few even mentioned that they didn't have a dental consultation.



**Graph.13.** 64.80% cited fear as the reason whereas 23.6% said that there was no dental clinic or hospital near their locality and the rest (11.60%) did not feel the need to .



**Graph.14.** 61.6% said that improper oral health will affect their general health, 22.80% said that it will not cause any problems and rest 15.60% had no idea about it.



**Figure.15.** 40.40% thought that dental caries would affect their aesthetics, whereas 25.20% opined that it will not and the rest (34.40%) had no idea about it

### III. DISCUSSION

This paper focuses on the knowledge, attitude and practice of school children on oral health. The school children showed very good response towards the study. The removal of plaque and debris from the teeth is a skill that can be mastered only when an individual has the dexterity to manipulate the toothbrush and understands the objectives of these activities.<sup>6</sup> In this study some positive results that were brought out were that 90% used tooth brush for cleaning purpose though a small percent of children indicate use of neem stick and finger. 79.6% of children learnt brushing from their mom and 56.4% started brushing at the age of 4 – 5yrs. In rural India, the use of toothbrush and toothpaste is considered expensive and, probably because of this reason indigenous methods of cleaning the teeth are still used. However, the majority of those who use a toothbrush are unaware of proper brushing

techniques. Other oral hygiene aids, such as dental floss, interdental cleaning aids, and mouthwashes, are not widely available and is rarely used.<sup>6</sup> According to Mohamed Ahad, majority of students (94.4%) practice brushing with tooth paste, only (5.20%) use neem stick for brushing their teeth. The rest 0.4% i.e. only one student revealed that he uses his hand for brushing.<sup>10</sup> Vishnu G Ashok et al stated that 91.9% students used toothbrush.<sup>11</sup> According to Madhurjiya 86 participants were using toothpaste for cleaning purpose and 5.2% were using tooth powder.<sup>12</sup> Oral health practices of study population were relatively good with 64.8% brushing once and only 23.60% brushing twice, in contrast to the study done by Swarnalatha J Wesley survey found that 24.17% brushed their teeth twice a day and 75.83% brush their teeth once a day, while Amitha et al survey conducted on rural population found that only 20% of children brushed their teeth twice a day. Improvement in parental and child oral health education might

explain this findings.<sup>7</sup> According to a study by Satish Vishwanathia 69.5% brushed once daily and 30.4% brushed twice.<sup>8</sup> According to Mohamed Ahad 53.20% brush their teeth twice a day, while 46% brush once daily. The rest 0.8% are not sure about their brushing Practice.<sup>10</sup> Vishnu G Ashok et al stated that 53.1% of students brushed twice daily and remaining 46.9% brushed once daily.<sup>11</sup> AfshanRahim found Regular tooth brushing was practiced by 89.8% respondents.<sup>3</sup> According to Madhurjiya, 23% were brushing daily.<sup>12</sup> Most of the children about 34.8% brush their teeth in horizontal direction along with certain children about 18% using random brushing due to lack of knowledge about proper brushing techniques. Swarnalatha J Wesley noted that 93.89% of school children brushed their teeth with horizontal strokes due to lack of knowledge about the proper brushing technique.<sup>7</sup> According to a study by Satish Vishwanathia 29.7% brushed teeth with horizontal strokes, 6.8% brushed teeth with vertical strokes and 50% of children brushed teeth with horizontal and vertical strokes.<sup>8</sup> According to Mohamed Ahad Most of the students brush their teeth in random direction(34.80%) along with a certain set of students using horizontal(27.20%) and vertical(18%) brush strokes. The students in knowledge of and practicing specific tooth brushing techniques amount to only 20%.<sup>10</sup> Also the duration of brushing for removal of the plaque is an important factor as in the present study children are not good in controlling plaque while brushing and is about 30sec in 44.8% and 1 – 2min in 40.8% of children. This is similar to the study done by Mohammad Nasir Shah.<sup>1</sup> The knowledge pertaining to oral health among the participants was good. 49.6% children were aware of the harmful effects of intake of sugary diet and 55.6% stated that it is caused due to soft drinks. The study by Satish Vishwanathia revealed that that irregular brushing can only cause decay, but they were unaware of the gum diseases and bad breath 64% of the children commented that dental problems were caused by eating ice creams only, but other problems like brushing technique, not rinsing mouth and irregular visit to the dentist were little cited by the children. 48.2% children suggested that dental problems can be prevented by avoiding sweet and sticky foods.<sup>8</sup> According to Bharathi M Purohita, Abhinav Singh as many as 84% of the children from special schools and 72.6% in the control group reported having consumed sugar twice between meals on the previous day; the difference was highly significant ( $p < 0.001$ ). According to the National Oral Health Survey in India (2002- 2003), for 12-year age groups, it was reported that only 24% to 30% of the respondents consumed sugar once on the previous day, while 14–15% had consumed sugar two or more times. The increased frequency of sugar consumption has an influence on dental caries, with a frequent fall in oral pH leading to enhanced caries activity, provided other factors also contribute.<sup>9</sup> Vishnu G Ashok et al stated that 49.4% had idea that regular brushing of teeth will prevent tooth decay and 39.4% had idea that avoiding sweets and chocolates can prevent tooth decay.<sup>11</sup> AfshanRahim found a minority of the population (8.3%) with dental caries. It shows that people are aware of dental self care but almost everyone consumes sugar in one form or the other as it includes one third of the population who take sugar in their daily routine.<sup>3</sup> In relation to visiting dentist the majority of the children were found that they visit dental clinic only when they have dental pain however few students had reported dental checkup. This might be due to the lack of parental encouragement. Pain was the main reason for visiting dentist. This study agrees with other study by Rajabeta2002, Omirietal2005 and Nagwarizketal.<sup>2</sup> According to Bharathi M Purohita, the majority of the children in both the study groups had never visited a dentist.

This may be due to their socioeconomic backgrounds, including family income, parental education, and area of residence along with cost of dental care, which might have influenced dental service utilization.<sup>9</sup> According to Mohamed Ahad many participants 64.80% said that they don't visit dentist because they don't have any dental pain.<sup>10</sup> Vishnu G Ashok et al stated that the majority 60.6% had never visited a dentist. According to Madhurjiya, 83.6% visited dentist only if they had a problem, 11.35% visited once in 3 months and 3.2% visited once in 6 months and 1.9% visited between 1 to 2 years.<sup>12</sup> A perturbing result came out that 38% of children did not know about changing their brush and 39.2% of children changed their brush in 6 months, but according to a study by Vishnu G Ashok et al stated that in that only 35.6% changed their toothbrush in 3-6 months as recommended.<sup>11</sup> According to Satish Vishwanathia 43.4% of the children changed their brush in 6 months, 30.8% of the children changed their brush in 3 months, 0.5% changed their brush once in a year, 22.1% changed their brush when the bristles frayed up and only 3% were unaware of time of changing the toothbrush.<sup>8</sup> It is undeniable that oral health is an integral part of general health. Socioeconomic status has direct influence on health and lower end individuals having markedly worse status compared to higher end. In this study 61.6% children were aware of the fact that oral health affects the general health. Recommendation: In view of socioeconomic status and oral hygiene practices, central and state government should implement concept of appointing more dental surgeons in all the PHC and SDH Hospitals, so that they educate public on oral hygiene care through education programs in schools and media. Preventive dental care is a neglected area that requires attention on an urgent basis.

#### IV. CONCLUSION:

A need exists to educate public on oral hygiene care through education programs in schools and media. Preventive dental care is a neglected area that requires attention on an urgent basis.

#### V. REFERENCES

- [1]. Mohammad Nasir Shah, Shamim Akhtar, Manzar Anwar Khan, Faridullah Shah, tooth brushing habits and knowledge among patients visiting Khyber College of Dentistry, JKCD June 2015, Vol. 5, No. 2
- [2]. Nagwar Rizk Mohammed Abu-Elenen1, Nabila Hassan Ali Abdella2, Rehab Hani Elkazaz, Effect of an Oral Care Educational Program on the Knowledge, Practice and Self-Efficacy Among School Age Children, International journal of research studies in biosciences (IJRSB) Volume 3, Issue 12, December 2015, PP 53-61.
- [3]. Afshan Rahim Khan, Waris Quidwai, Dental Care (Prevention and Status) Among Family Practice Patients at a Teaching Hospital in Karachi, Pakistan, volume No. 18 (1), June 2013
- [4]. Nagarajappa R, Sahare P, Shukla N, Tuteja JS, Bhalla A, Knowledge, Attitude and Practices Regarding Oral Health among Out Patients at Rama Dental College, Kanpur, Rama Univ J Dent Sci 2015 Mar;2(1):8-14
- [5]. Vinod S. Kamble1\*, Santosh M Biradar1, Aparna Takpere2, Shrinivas Reddy1, Evaluation of oral hygiene awareness and practices among medical students, International

Journal of Community Medicine and Public Health, Kamble VS et al. Int J Community Med Public Health. 2016 Jan; 3(1):83-85

[6]. Dinesh Rao, Hedge Amitha, water KishanMunshi, Oral hygiene status of disabled children and adolescents attending special schools of South Canara, India, Hong Kong Dental Journal 2005;2:107-13.

[7]. Swarnalatha J Wesley, Oral hygiene status and oral health practices of primary school children in rural india, Journal of dental clinics, 2015, vol – 7, issue – 1.

[8]. Satish Vishwanathia, Knowledge, attitude and oral health practices of the school children in Davangere, International Journal of clinical pediatriccentistry, 2016, 9(2), 172 – 176.

[9]. Bharathi M Purohita, AbhinavSingh , Oral health status of 12-year-old children with disabilities and controls in Southern India.

[10]. Mohammed Ahad,Gheena, Awareness of Tooth Brushing Techniques and Proper Oral Hygiene among School Children, J. Pharm. Sci. & Res. Vol. 7(6), 2015, 367-372

[11]. Vishnu G Ashok1, Krishnaprasad, a study on oral hygiene among school children in a rural area of Tamilnadu, International journal of contemporary medical research, volume 3, issue 9, September 2016

[12]. Afshan Rahim Khan1, WarisQidwai, Dental Care (Prevention and Status) Among Family Practice Patients at a Teaching Hospital in Karachi, Pakistan Volume No. 18 (1), June 2013