

## The Oral Health Knowledge and Hygiene Practices among Primary School Children: A Literature Review

Praful Damor<sup>1</sup>, Abhay Pattan<sup>2</sup>, Milan Chauhan<sup>3</sup>

### How to cite this article:

Praful Damor, Abhay Pattan, Milan Chauhan/The Oral Health knowledge and Hygiene Practices Among Primary School Children: A Literature Review/Indian Journal of Forensic Odontology. 2021;14(1):9–13

### Abstract

Review literature is a part of the study that the paper from selected journal. This paper aims at determining the oral health knowledge and oral hygiene practices among school children in the study region. This was a descriptive cross sectional study carried out among primary school children. A research administered questionnaire was used to determine the oral health knowledge and practices in a random sample of 401 students in the period March to June, 2002. 92% of the students claimed they brushed their teeth, about 48% brushed at least twice daily. More students (59.1%) reported using chewing stick compared to those using commercial toothbrushes ( $p = 0.000$ ). Female students brushed more frequently than their male counterparts ( $p = 0.000$ ,  $z = 24.65$ ). 39.9% of the students knew the cause of tooth decay, 48.2% could state at least one method of prevention, while 16.5% knew the importance of teeth. Use of toothpaste was reported by 38.9% of the students. Less than half of the students knew the causes of tooth decay and how to prevent it. Only about half of the students brushed their teeth twice daily with the chewing stick being more frequently used. Therefore, it was recommended that there is need to increase the oral health knowledge through well planned school based oral health education programmes in the primary schools. This would hopefully lead to improvement on the oral hygiene practices.

**Keywords:** Oral health knowledge; Oral hygiene practices; School children.

### Introduction

According to the World Health Organization (WHO), oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, tooth decay, tooth loss and other diseases and disorders that affect the oral cavity.<sup>1</sup> Oral health remains a very sensitive and vital indicator of the general health and well-being of a person.<sup>2</sup>

The concept of oral health may seem trivial to us but, in reality, it is the most common problem that affects all the age groups.<sup>3</sup> It has some serious implications causing pain, discomfort, disfigurement and even death in some cases. The global burden of disease 2016 enlightens us about the fact that half of the world population accounting for 3.58 billion people suffer from oral diseases, out of which 2.4 billion suffer from caries of permanent teeth and 486 million children suffer from caries of primary teeth.<sup>4</sup> High sugary food, fizzy drinks, food habits, parental literacy and socio economic status have all been associated with increased incidence of dental caries.<sup>5</sup>

**Design:** A literature review

**Material and method:** Pub Med, Research gate, Google scholar database were used to search the literature, Studies were included only if the data on prevalence of oral hygiene were available. Studies

**Author Affiliation:** <sup>1-3</sup>Assistant Professor, Department of Community Health Nursing, Parul Institute of Nursing, Parul University, Vadodara 391760 Gujarat, India.

**Corresponding Author:** Abhay Pattan, Assistant Professor, Department of Community Health Nursing, Parul Institute of Nursing, Parul University, Vadodara 391760 Gujarat, India.

**E-mail:** [abhay.pattan@gmail.com](mailto:abhay.pattan@gmail.com)

**Received on:** 08/02/2022

**Accepted on:** 15/02/2022

used physical examination and confirmatory test for conforming oral hygiene were included.

**Result**

Six full text articles met the inclusion criteria are involved in the literature review’s The literature review revealed that the children’s who belongs to age group of 12-16 years and who has work experience of more than 30 years in clinical side has higher prevalence among oral hygiene.

**Conclusion**

Literature review reveals that riskthe oral health knowledge and hygiene practices among primary school children.

**Objectives**

The Objectives of this study was to systematically review the literature to

- To estimate the overall oral hygiene among the student
- To identify pros an corns among the children

**Inclusion and exclusion criteria**

Studies were included only if the data on oral self-care among students were available. Studies used rapid test and physical examination for conforming were included and studies publish from January 2005 to November 2021 were considered, the studies which were revealing prevalence differences in

gender were included. The conferences articles, abstract, case report were excluded.

**Method**

*Data and Sources of Data*

*Literature search*

A literature review search was carried out in the following electronic bibliographic databanks: Medline/PubMed and the Google Scholar, included all publications up to September 2019. Search words collected of prevalence and affected by the oral hygiene for all years. Restriction based on 2005 Jan to September 2019 publication year.

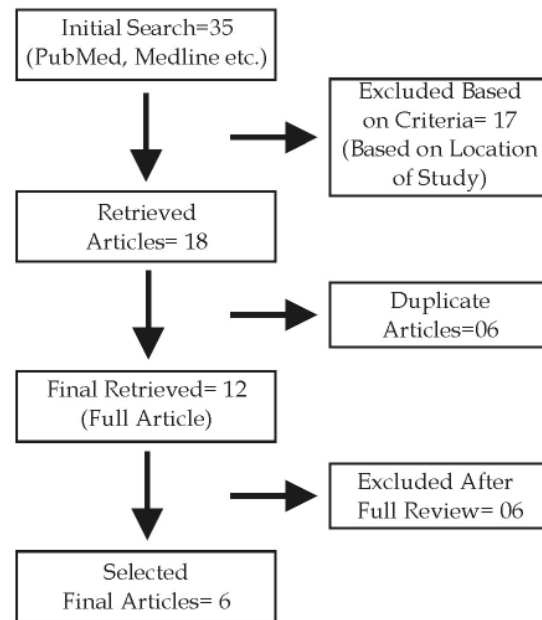


Fig. 1: Flow Chart Study Selection Process.

Table: 1

Author detail with year of publication	Region of study	Study design	Study sample	Period	Gender	Major findings
K. A. Okemwa1*, P. M. Gatongi2 and J. K. Rotich2	Uasin Gishu district situated in the northern part of the Rift Valley province of Kenya.	Cross sectional study	401 students	20 weeks	M-170(85.4) F-150(87.7)	A research administered questionnaire was used to determine the oral health knowledge and practices in a random sample of 401 students in the period March to June, 2002. 92% of the students claimed they brushed their teeth, about 48% brushed at least twice daily. More students (59.1%) reported using chewing stick compared to those using commercial toothbrushes (p = 0.000). Female students brushed more frequently than their male counter parts (p = 0.000, 2 = 24.65). 39.9% of the students knew the cause of tooth decay, 48.2% could state at least one method of prevention, while 16.5% knew the importance of teeth. Use of toothpaste was reported by 38.9% of the students.

Saad Masood Al-Qahtani 1,*, Pervez Abdul Razak 2 and Siraj DAA Khan	Inter-mediate school children in Abha, Saudi Arabia.	Cross sectional study	540 school children	24 December 2019	M-540 school children	Most (82.3%) of the school children were aware that good oral health is important for general health. The priority for oral health information was given to dentists (31.6%), where as teachers were given the least priority (19.1%). About half (53.5%) of the school children reported that sweets are the cause of dental caries, and 47.1% of them related pain with dental caries. More than half (58.8%) took sweets between meals. Most of them (69.6%) visited a dentist because of pain. Two thirds (66.9%) of the children did not brush their teeth daily, and most (78%) did not use dental floss.
Carlos A. Munoz-Viveros	Misungwi District, Tanzania	Cross sectional study	388 adults	23 July 2018;	M-197(50.8) F-191( 49.2)	Many more participants were males (n 197;50.8%) and of younger age group (n=215;55.4%) and having seven years of education (n 257;66.2%). Higher numbered participants reported owning a mobile phone (n 289; 74.5%) and a radio (n 298; 76.8%), while few (n = 45; 11.6%) had their houses connected to electricity. Study participants who were males (n 101; 51.3%), had more than seven years of schooling (n=67; 72.3%), who owned a mobile phone (n 143; 49%), owned a radio (n=144; 48.3%), and resided in houses having electricity (37;82.2%) werest atistically significantly more knowledge able on period on tal health when compared to thei rcounter parts. A statistical significant dierence was seen in oral health practices conducive to periodontal health among those who were males (n 133; 67.0%), having more than seven years of education (n = 78; 83.0%), owning a mobile phone (n 189; 65.4%), owning aradio (n 195; 65.4%), and residing house having electricity (n = 35;77.8%).
Jitender Solanki*, Sarika Gupta†, Gee ka Arora‡, Sumit Bhateja	Children of Jodhpur city.	A Comparative Study	704 childre	May - august 2013	354 (175 females and 179 males) from school for blind and 350 (175 females and 175 males)	The study showed that the prevalence of dental caries was 60% and 31.5% in visually impaired and normal children respectively. The oral hygiene status showed that the mean value in good category was found to be 0.19 and 0.67, in fair category was 0.22 and 0.1 and in poor category was 0.40 and 0.23 in visually impaired children and normal children respectively. <i>Conclusion:</i> If dental health awareness can be instituted to the parents, including brushing techniques and diet counseling at a very early age, the incidence of dental caries can be kept to minimum, and can reduce the probability of complicated dental treatment needs. The oral hygiene habits of individuals with disabilities can be improved by close monitoring and periodic dental check-ups.

Rodrigo Jiménez, Miguel Angel Tapias-Ledesma, Carmen Gallardo-Pino, Pilar Carrasco and Ángel Gil de Miguel Madrid, Spain	Spanish children.	Descriptive cross-sectional study	1676	Jan-2014	M-853 F-823	Total of 60% of the study children had not visited a dental professional in the preceding 12 months. Children having parents or guardians with the lowest educational level were 1.592 times more likely to have received no dental care than those with the highest educational level. The likelihood of not having made use of such dental services rose 2.232 fold in cases where income was <600 versus >1200 per month. Overall prevalence of self reported caries for the sample as a whole was 34.4%. Subjects in the lowest income bracket (<600 per month) were 1.497 times more likely to have caries than those in the highest income bracket. In all, 68.5% brushed their teeth every night, but the percentage rose significantly with age, size of town or city, and income.
Nida Mubeen* and Nighat Nisar	Civil Hospital, Karachi	Cross sectional study	281	28 Oct 2015	F-281	Majority (91.1%) of mothers had inadequate knowledge. Half (55.5%) of the mothers had positive attitude and 65% of mothers had improper practices. After adjusting socio demographic variables, the odds of inadequate knowledge among illiterate mothers were eight times (AOR=8.34, 95% CI 3.98-27.8) more as compared to literate mothers. The other factors showed significant association in multivariate analysis were negative attitude of mothers, household income <10,000 Pakistani rupees, improper practice of divorced/separated mothers as compared to married women.

## Results and Discussion

Jitender Solanki\*, Saad Masood Al-Qahtani 1,\*, Carlos A. Munoz Viveros, Jitender Solanki\*, Rodrigo Jiménez, Nida Mubeen shows Majority of the students i.e. 58.6% brushed twice a day. This was parallel to studies where students brushed twice a day. Total of 60% of the study children had not visited a dental professional in the preceding 12 months. Children having parents or guardians with the lowest educational level were 1.592 times more likely to have received no dental care than those with the highest educational level.

## Conclusion

Literature review reveals that shows that in our study it is evident that the younger age group and the female participants had better practice and knowledge than their respective counterparts. It is evident that though one can assume that the knowledge and practice would improve as one ages, it might not be true. Thus, oral education must be tailor made based on the calibre of that particular age group instead of 'one for all' method. Nearly half of the students (52.9%) took about 2

minutes to brush their teeth. Our findings were in contrast to studies where the majority of them brushed more than two minutes. 1 Nida Mubeen shows that the Majority (91.1%) of mothers had inadequate knowledge. Half (55.5%) of the mothers had positive attitude and 65% of mothers had improper practices.

### Implication to Nursing Practice

Nursing care includes preventive, promotive, curative and rehabilitative services. There are many new initiative would be taken in prevention of hepatitis B infections, which would help in improving health among the individuals and health care professionals and prevalence would identify the cases and help to cure and prevent further infection among the health care personnel's.

## References

1. Al-otaibi M (2004).The miswak (chewing stick) and oral health. Studies on oral hygiene practices of urban Saudi Arabians. Swed. Dent. J. suppl.
2. Lembarati BS (2001). Challenges of plaque control in the millennium. Afr. J. Oral. Health Sci., 3:

3. Petersen, P.E. Continuous improvement of oral health in the 21st century: The approach of the WHO Global Oral Health Programme. *Zhonghua Kouqiang Yi Xue Za Zhi* 2004,
4. Togoo, R.A.; Yaseen, S.; Zakirulla, M.; Nasim, V.S.; Al Zamzami, M. Oral hygiene knowledge and practices among school children in a rural area of southern Saudi Arabia. *Int. J. Contemp. Dent.* 2012
5. R. G. Watt and P. E. Petersen, "Periodontal health through public health-the case for oral health promotion," *Periodontology* 2000,
6. Y. A. Aljehani, "Risk factors of periodontal disease: review of the literature," *International Journal of Dentistry*, vol. 2014, Article ID 182513,
7. Fiske J, Davis DM, Frances C, Gelbier S. The emotional effects of tooth loss in edentulous people. *Br Dent J* 1998
8. Zusman SP, Ramon T, Natapov L, Kooby E. Dental health of 12-year-olds in Israel-2002. *Community Dent Health* 2005;22:175-9. 31. Lukacs JR, Largaespada LL. Explaining sex differences in dental caries prevalence: Saliva, hormones, and "life-history" etiologies. *Am J Hum Biol* 2006
9. Petersen PE (2003) Improvement of oral health in the 21st century-the approach of the WHO Global Oral Health Programme. *Community Dent Oral Epidemiol*
10. Adams SH, Hyde S, Gansky SA (2009) Caregiver Acceptability and Preferences for Early Childhood Caries Preventive Treatment for Hispanic Children. *J Public Health Dent* 69.

