

# Effectiveness of Child to Child Teaching of Brushing Technique Practices on Oral Hygiene among Primary School Children in Selected School at Villupuram District

Karthi.R<sup>1</sup>, D.Sarankumar<sup>2</sup>, A.Sangeetha<sup>3</sup>, R.Sangeetha<sup>4</sup>, S.Sangeetha<sup>5</sup>,  
S.Sangeetha<sup>6</sup>, K.Santhi<sup>7</sup>, E.Saranya<sup>8</sup>

<sup>1</sup>Professor & HOD, Dept of MSN, E.S. College of Nursing, Villupuram, Tamilnadu

<sup>2-8</sup>Final Year B.Sc., Nursing, E.S. College of Nursing, Villupuram, Tamilnadu

Corresponding Author: Karthi.R

## ABSTRACT

**Aim:** To assess the effectiveness child to child teaching of brushing technique practices on oral hygiene among primary school children.

**Objectives:** (i) To assess the brushing technique practices among primary school children using an observational check list before and after child to child teaching program. (ii) To evaluate the effectiveness of child to child teaching of brushing technique practices on oral hygiene among primary school children (iii) Find the association between brushing technique practices on oral hygiene with selected demographic variables of primary school children in post-test.

**Methodology:** Under the experimental - Pre experimental one group pre-test post-test design will be adopted for this study. 50 samples were selected by using purposive sampling technique. The pre and post-test level of practice and effectiveness of child to child teaching was assessed by using checklist.

**Result:** Pre-test mean is 2.02 with standard deviation of 0.314 and post-test mean 7.94 with the standard deviation of 1.606. Standing error 0.293. T-value 19.453 is highly significant at  $p < 0.001$ . It indicates the level of practice of brushing technique among primary school children is improved.

**Conclusion:** The study concluded that child to child teaching program was effective and improved knowledge and practice regarding brushing technique practices on oral hygiene among primary school children

**Keys words:** Child to Child teaching, Brushing Technique Practices, Oral Hygiene

## INTRODUCTION

Oral hygiene is the practice of keeping one's mouth clean and free of disease and other problems (e.g. bad breath) by regular brushing of the teeth (dental hygiene) and cleaning between the teeth. It is important that oral hygiene be carried out on a regular basis to enable prevention of dental disease and bad breath. The most common types of dental disease are tooth decay (cavities, dental caries) and gum diseases, including gingivitis, and periodontitis. General guidelines suggest brushing twice a day: before breakfast and before going to bed, but ideally the mouth would be cleaned after every meal. Cleaning between the teeth is called interdental cleaning and is as important as tooth brushing. This is because a toothbrush cannot reach between the teeth and therefore only removes about 50% of plaque from the surface of the teeth. There are many tools to clean between the teeth, including floss and interdental brushes; it is up to each individual to choose which tool they prefer to use. Sometimes white or straight teeth are associated with oral hygiene.

However, a hygienic mouth can have stained teeth or crooked teeth. To improve the appearance of their teeth, people may

use tooth whitening treatments and orthodontic Oral health is important for general health and wellbeing. We know that poor oral health can affect someone's ability to eat, speak, smile and socialize normally. From early in life, as part of the overall health and wellbeing of a child, good oral health contributes to their 'Getting the Best Start in Life' and school readiness. Oral health is an essential component of a person's health. The Australian Healthcare and Hospital Association's (AHHA) most recent evidence brief) suggests that dental check-ups should be conducted once every 3 years for adults, and 1 every 2 years for children. It has been documented that dental professionals frequently advise for more frequent visits, but this advice is contraindicated by evidence suggesting that check-up frequency should be based on individual risk factors, or the AHHA's check-up schedule.

Poor oral health is related to significant morbidity and mortality. According to a study done in the USA, it was concluded that the frequency of emergency department visits because of Preventable dental conditions has increased by 16 percent since 2006. Poor oral hygiene has a significant impact on general health and is associated with various systemic diseases. The Systemic diseases also have an impact on oral diseases the authors attributed this to a lack of oral health self-assessment skills, which resulted in poor oral hygiene Considering the fact that medical students are more knowledgeable and aware of health Problems, we hypothesized that medical students would be able to maintain appropriate dental Hygiene. It is important to assess their oral health knowledge, attitude, and practice because they are future professionals who will be responsible for managing and preventing oral health diseases. The objectives of our study were to assess the teeth-cleaning techniques and oral hygiene practices among medical student.

A toothbrush is an instrument used to clean teeth, consisting of a small brush on

a handle. Toothpaste, often containing fluoride, is commonly added to a toothbrush to aid in cleaning. Toothbrushes come in manual and electric varieties. Although there is conflicting evidence as to which is more effective, most evidence points to electric toothbrushes with an oscillatory motion being more effective than manual toothbrushes, with toothbrushes lacking an oscillatory motion being equivalent. A 2014 Cochrane review found moderate evidence that electric tooth brushing reduces plaque and gingivitis more than the manual one. Overall, both manual and electric toothbrushes are effective, however, and it is often recommended that people use whichever one they feel comfortable with, determine what is affordable for them and will be more likely to regularly brush with.

### **Statement of the Problem**

A Study to assess the effectiveness child to child teaching of brushing technique practices on oral hygiene among primary school children in selected school at Villupuram district”

### **Objectives of the Study**

- ❖ To assess the brushing technique practices among primary school children using an observational check list before and after child to child teaching program.
- ❖ To evaluate the effectiveness of child to child teaching of brushing technique practices on oral hygiene among primary school children
- ❖ Find the association between brushing technique practices on oral hygiene with selected demographic variables of primary school children in posttest.

### **HYPOTHESIS**

**H1** There will be significant difference in brushing technique practices on oral hygiene among primary school children after child to child teaching method

**H2** There will be significant association between brushing technique practices on

oral hygiene among primary school children with their selected demographic variable.

## MATERIAL AND METHODS

**Methodology:** Under the experimental - Pre experimental one group pre-test post-test design will be adopted for this study. 50 samples were selected by using purposive sampling technique. The pre and post-test level of practice and effectiveness of child to child teaching was assessed by using checklist.

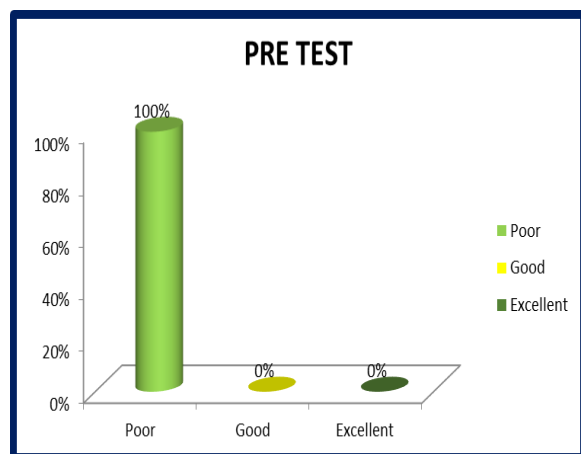
## RESULT AND DISCUSSION

Frequency and percentage distribution of pre and post-test level of practice regarding child to child teaching on oral hygiene among primary school children.

**Table: 1** Frequency and percentage distribution of pre-test level of practice regarding child to child teaching on oral hygiene among primary school children N=50

S.No	Level Of Practice	Pre-Test	
		Frequency	Percentage
1.	Poor	50	100%
2.	Good	0	0%
3.	excellent	0	0%

The above table Shows that in pretest level of practice among samples 50 (100%) had poor practice and none of them (0%) had good and excellent practice.



**Figure1:** shows Pre-Test level of knowledge among primary school children

**Table2:** Frequency and percentage distribution of post-test level of practice regarding child to child teaching on oral hygiene among primary school children N=50

S.No	Level Of Practice	Post Test	
		Frequency	Percentage
1.	Poor	-	-
2.	Good	8	16%
3.	excellent	42	84%

Shows that in post test level of practice among samples none of them (0%) had a poor practice, 8(16%) had good practice, 42 (84%) had excellent practice.

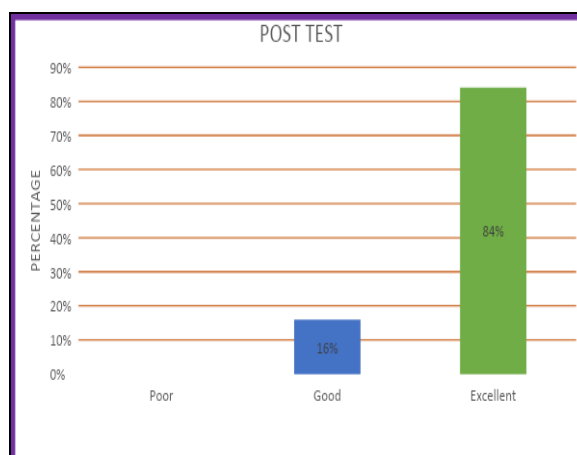


FIGURE shows Post-test level of practice regarding oral hygiene among primary school children

**Table 5:** Mean and standard deviation of level of practice among school children n=50

S.No	Level of Practice	Mean	Standard Deviation	T-Value
1.	Pretest	2.02	0.314	19.45* S
2.	Posttest	7.94	1.606	

\*Significant at  $p < 0.05$

The above table shows the pre-test mean was 2.02 with the standard deviation 0.314 and the post-test mean was 7.94 with the standard deviation 1.606 and T-value is 19.453 and it indicates that highly significant at p value 0.05.

The above table shows there is significant association between level of practice with mother education and monthly income at  $P < 0.05$  and there is no significant association between level of practice with age of children, gender, residence, father education, father occupation, type of family, religion, water facility.

**Table 3: Association between posttest levels of practice with select socio demographic variable** N=50

S.no	Demographic variable	Level of practice			Chi Square Test	P- value
		Poor	Good	Excellent		
1.	<b>Age</b>	0	8	24	5.34 DF - 6	0.501002 [NS]
	a)8years					
	b)9years	0	0	18		
	c)10years	0	0	0		
2.	<b>Gender</b>	0	3	24	1.11 DF-4	0.892682 [NS]
	a) Male					
	b) Female	0	5	18		
	c)Others	0	0	0		
3.	<b>Residence</b>	0	0	0	0 DF-6	0.842129 [NS]
	a) Urban					
	b) Rural	0	8	42		
	c)Semi urban	0	0	0		
4.	<b>Father Education</b>	0	3	12	2.728 DF-4	0.8421 [NS]
	a) Illiterate					
	b) Primary	0	3	8		
	c)Secondary	0	2	21		
5.	<b>Mother Education</b>	0	5	13	304.87 DF-6	<0.0001* [S]
	a) Illiterate					
	b) Primary	0	1	9		
	c)Secondary	0	2	18		
6.	<b>Father Occupation</b>	0	0	0	0.328 DF-6	0.99965 [NS]
	a) Profession					
	b) Business	0	1	9		
	c)Farmer	0	7	33		
7.	<b>Monthly Income</b>	0	0	0	20.93 DF-6	0.001889* [S]
	a) <Rs.2000					
	b) Rs.2000-5000	0	0	3		
	c)Rs5000-10000	0	4	26		
8.	<b>Type Of Family</b>	0	1	10	0.728 DF-4	0.947832 [NS]
	a) Joint family					
	b) Nuclear family	0	7	31		
	c)Extended family	0	0	1		
9.	<b>Religion</b>	0	8	40	3.48 DF-4	0.480926 [NS]
	a) Hindu					
	b) Muslim	0	0	2		
	c)Christian	0	0	0		
10.	<b>Water Facility</b>	0	8	42	0 DF-4	1 [NS]
	a) Municipality					
	b) Well water	0	0	0		
	c)River water	0	0	0		

\*Significant at p<0.05

## DISCUSSION

The first objectives of the study are to assess the brushing practices among primary school children using an observational check list before and after child to child teaching programme.

- In assessing pre-test level of practice knowledge regarding brushing techniques among 50 samples 50(100%) of children had a poor practice.
- In assessing post-test level of practice regarding on brushing techniques among 50 samples 8(16%) had good practice, 42(84%) had excellent practice (0%) had poor practice.

Krishnaprasad. C et.al (2016) A Study on Oral Hygiene among School Children in A Rural Area of Tamilnadu. The study group comprised of 160 students who were in the age group of 12 to 15 years. Study was conducted in a school which comes under the service area of rural health center. The present study aimed to know the attitude and practice about oral hygiene among school children. Study showed 53.1% of students were brushing twice daily and remaining 46.9% brushed once daily. Majority of the study subjects (92.5%) were using tooth paste for brushing. Finding of current study showed that the knowledge

attitude practice about oral hygiene among school children were not satisfactory and had to improved significantly. Community based health promotion for oral hygiene is a must for improving oral health among school children.

**The second objective of the study is to evaluate the effectiveness of child to child teaching of brushing techniques practices on oral hygiene among primary school children**

- The pre-test mean was 2.02 with the standard deviation 0.314. And the post-test mean was 7.94 with the standard deviation 1.606 And T-value 19.453 and it indicates that highly significant at p value 0.05. Hence Hypothesis H1 is accepted.

**The third objective of the study is to find association between brushing technique practices on oral hygiene with selected demographic variables of primary school children in post-test.**

- The finding shows that there is significant between level of practice with mother education and monthly income at  $P < 0.05$  and there is no significant association between level of practice with age of children, gender, residence, father education, father occupation, type of family, religion, water facility. Hence Hypothesis H2 is accepted.

Gitumoni Konwar et.al (2019) A descriptive study done to assess the knowledge of oral hygiene among middle school students in selected school of Ranchi, Jharkhand. In the present study a quantitative research approach was found to be suitable to assess the knowledge of oral hygiene among middle school children. The sample in this study is the selected students of middle school of standard VI-VIII. The sample size for the present study is 100. The data was collected and it was interpreted using descriptive and inferential statistics. The findings of the study that there is no significant association between the knowledge and socio demographic variables

regarding oral hygiene among middle school students.

## CONCLUSION

The findings of the study reveal that the level of pre-test mean is 2.02 with the standard deviation of 0.314 and post-test mean is 7.94 with the standard deviation of 1.606. The t value of 19.453 is highly significant at  $P < 0.05$ . The study concluded that the child to child teaching program was effective and improved knowledge and practice regarding brushing technique practices on oral hygiene among primary school children.

## REFERENCE

1. Rimple Sharma (2019) the text book of essential of pediatric nursing, 2<sup>nd</sup> edition, published by Jaypee brother's medical publisher (p) ltd New Delhi.
2. Parul dalta (2019) the text book of pediatric nursing, 4<sup>th</sup> edition published by Jaypee brother's medical publisher.
3. Padmaja. A (2016) the text book of child health nursing, 1<sup>st</sup> edition, published by Jaypee brothers.
4. BT Basavanthappa (2015) the book of child health nursing, 1<sup>st</sup> edition published by Jaypee brothers.
5. Suresh K Sharma text book of nursing research and statistics, 3<sup>rd</sup> edition published by Elsevier publishers.
6. P AKP, Shankar S, Sowmya J, Priyaa C V. Oral health Knowledge Attitude Practice of School students of KSR Matriculation School, Thiruchengode. 2010; 5-11.
7. Al-Omiri MK, Al-Wahadni AM, Saeed KN. Oral health attitudes, knowledge, and behaviour among school children in North Jordan. J Dent Educ. 2006;179-87.
8. Al-Darwish M, El Ansari W, Bener A. Prevalence of dental caries among 12-14-year-old children in Qatar. Saudi Dent J. 2014; 26:115-25.
9. Al-Omiri MK, Al-Wahadni AM, Saeed KN. Oral health attitudes, knowledge, and behaviour among school children in North Jordan. J Dent Educ. 2006; 70:179-87.
10. Priya M, Devdas K, Amarlal D, Venkatachalapathy A. Oral health attitudes, knowledge and practice among school

- children in Chennai, India. *J Educ Ethics Dent*. 2013; 3(1):26-33.
11. F. H. Quadri, A. Pramono , and M. Jafer, "Knowledge, attitudes and practices of sweet food and beverage consumption and its association with dental caries among schoolchildren in Jazan, Saudi Arabia," *Eastern Mediterranean Health Journal*, vol. 21, no. 6, pp. 403-411, 2015.
  12. Lateefat S, et al. Determinants of Oral Hygiene Status among Junior Secondary School Students in Ilorin West Local Government Area of Nigeria. *IOSR Journal of Pharmacy and Biological Sciences*. 2012; 1:44-48.
  13. Dakhili S, O Nooralsuwaidi, Saeed S, Murad S, Mohammad D, Muttappallymyalil J et al. Knowledge on Oral Hygiene among school children in AJMAN, UAE. *Int J Curr Res* 2014; 6(9).
  14. Subait A, Alousaimi M, Gaverghese A, Ali A, Metwally A. Oral health knowledge, attitude and behaviour among students of age 10-18 years old attending Jenadriyah festival Riyadh; a cross sectional study. *Saudi J Dental Res* 2016; 7:45-50.

**Online References:**

1. [www.jeed.in/articles.asp](http://www.jeed.in/articles.asp)
2. [www.jsirjournal.com](http://www.jsirjournal.com)
3. [www.dentalhealth.ie/causes/dentalxaries.html](http://www.dentalhealth.ie/causes/dentalxaries.html)
4. [www.joadms.org](http://www.joadms.org)

How to cite this article: Karthi.R, D.Sarankumar, A.Sangeetha et.al. Effectiveness of child to child teaching of brushing technique practices on oral hygiene among primary school children in selected school at Villupuram district. *International Journal of Science & Healthcare Research*. 2020; 5(4): 358-363.

\*\*\*\*\*