International Journal of All Research Education and Scientific Methods (IJARESM),
ISSN: 2455-6211, Volume 13, Issue 7, July -2025, Available online at: www.ijaresm.com

A Study to Assess the Effectiveness of Interventional Teaching Program on Knowledge and Practice regarding Oral Hygiene among School Children in Selected School of Kashmir

Ms. Mubashir Bashir[1], Mr. Mohammad Azam Dar[1], Ms Suraiya Mushtaq[2], Mr Showkat Hussain[2], Ms Masrat Tariq[2], Mr Majid Hussain Wani[2], Ms Aimun Shah[2], Mr Danish Farooq[2]

[1]Faculty, Department of Nursing, Islamic university of science and Technology, Awantipora, Kashmir
[2]B.Sc. Nursing Students, SMMCN&MT, Islamic university of science and technology Awantipora, Kashmir

(**Corresponding author's name:** Mr. Mohammad Azam Dar*)

Article history: Received: 18 June. 2025, Reviewed on: 03 July 2025, Published online: 15 July, 2025

----------**********----------

ABSTRACT

Oral Hygiene is a practice of keeping the mouth clean and healthy by brushing and flossing to prevent tooth decay and gum disease. According to WHO 2012, Oral health has been defined as a state of being free of mouth and facial pain, oral infections and sores, and oral and other diseases that limit an individual's capacity in biting, chewing, smiling, speaking and psychosocial well-being. The goal of WHO, "Health for all by the year 2025" includes oral health as one among the healthy life. So, WHO had selected the theme "Oral health for healthy life, in 1994". The purpose behind this was to make the people aware about various diseases of oral cavity and to educate them in relation to prevention of these disease. Due to their higher frequency and negative consequences on a person's quality of life, oral illnesses have been a chronic public health issue around the world. Among the most common dental conditions impacting individuals, people, and the community are peri-dental disorders, dental caries, malocclusion, and oral cancer. In India, dental caries, which can affect 60–80% of youngsters, is a serious public health issue.

Aims & Objectives: To assess the pretest knowledge and practice score regarding oral hygiene among school children. To assess the posttest knowledge and practice score regarding oral hygiene among school children. To find out the association of selected socio-demographic variables with knowledge level and practice score regarding oral hygiene among school children. To assess the effectiveness of structured teaching program by comparing pretest and posttest knowledge and practice regarding oral hygiene among school children.

Material and method: A pre-experimental one group pre-post-test research design was adopted for this study. The sample for the present study comprises of 70 subjects of different age groups from rural area of Mattan. The sampling technique adopted for the selection of sample was purposive sampling technique. WHO standardized tool was utilized to collect the data. The data obtained was analysed and interpreted in terms of objectives of study. Descriptive & inferential statistics were used for data analysis and presented through tables and figures.

Results: In pre-test, majority of subjects 40% were in the age group of 6-8 years, about 28.6% were in the age group of 8-10 years and about 31.4% were in the age group of 10-12. Regarding the gender, majority of the study subjects were females 51.4% and 48.6% were males. The results of the study subjects revealed that the knowledge regarding teeth was very good in8.6%, good in 22.9%, average in 32.9%, poor in 30.0%, very poor in 5.7% and the knowledge regarding health of gums was very good in 4.3%, good in 21.4%, average in 51.4%, poor in 21.4% and very poor in 1.4%. that is 74.3% clean their teeth once a day and minimum students that is 2.9% clean their teeth several times a week. Also, the result shows 41.4% were consuming fresh fruits every day and 1.4% never consumed. Whereas in post-test 31.4% subjects were having good knowledge regarding health of teeth, 7.1% were having poor knowledge. 51.4% of the total subjects were having good knowledge regarding health of gums 2.8% were having poor knowledge.45.7% of the total subjects clean their teeth once a

day, 2.8% never cleaned. Therefore, after giving intervention the knowledge level regarding oral hygiene was increased. Also, it was found that there is significant association between gender and knowledge regarding health of teeth ($p<0.05$).

Conclusion: The school aged students in Govt Middle School Mattan and other schools of Kashmir have average knowledge regarding Oral hygiene. After structured teaching program it was found that knowledge regarding health of teeth was enhanced. The study also revealed that there is significant relation of knowledge regarding health of teeth with demographic variable such as gender. The conclusion of the study also reveals there should be more awareness regarding Oral hygiene which can be achieved by conducting awareness programmes with screening in schools at periodic intervals. More and more studies need to be carried out to know the exact Oral hygiene practices among school aged children.

Keywords: Knowledge, oral hygiene, school children.

INTRODUCTION

A state of oral and related tissue health that allows someone to eat, speak, and interact socially without experiencing active disease, discomfort, or humiliation and that also contributes to overall health is known as oral health. The mouth is regarded as the window to good health and the mirror of the body.[1]

The goal of WHO, "Health for all by the year 2025" includes oral health as one among the healthy life. So, WHO had selected the theme "Oral health for healthy life, in 1994". The purpose behind this was to make the people aware about various diseases of oral cavity and to educate them in relation to prevention of these disease.[2]Due to their higher frequency and negative consequences on a person's quality of life, oral illnesses have been a chronic public health issue around the world. Among the most common dental conditions impacting individuals, people, and the community are peri-dental disorders, dental caries, malocclusion, and oral cancer.[3]In India, dental caries, which can affect 60–80% of youngsters, is a serious public health issue.

High sugar intake, a switch to a westernized diet, socioeconomic class, and the mother's educational level has all been linked to an increase in the occurrence of dental caries.[4]In India, oral cancer has also been a significant issue.[5] These oral disorders may have a hereditary predisposition, developmental issues, poor oral hygiene, and traumatic events as its etiological causes.[6]Knowledge of oral health is regarded as a crucial component in determining an individual's general health. According to surveys, there is still a knowledge gap about oral health, particularly among rural Indians, who make up more than 70% of the country's population.[7] In addition, despite having easy access to dental treatment, people who live in cities might still develop oral illnesses as a result of poor eating habits and an unhealthy way of life.[8]

According to the Indian Dental Association's (IDA) 2005 National Oral Health Survey, 95% of the population in India has gum disease, only 50% of people use toothbrushes, and just 2% of people go to the dentist.[9]A cost-effective way to lessen the burden of oral diseases, preserve oral cleanliness, and improve quality of life is to promote oral health, according to the WHO. [10] Therefore, the WHO has established the Recommended Oral Self Care (ROSC) targets for the year 2020, which include regular use of fluoride-containing toothpaste, brushing teeth more than once per day, and consuming sugar-containing snacks less frequently than once per day.[11] The National Oral Health Care Program was established in 1999 to combat the nation's rising morbidity from dental issues. This program's major goal is primary prevention through the development of awareness campaigns.[12] In addition to these measures, the National Cancer Control Program addresses the issue of mouth cancer nationally.[13]

Need of the study

Oral diseases, are largely preventable, but have a major health burden for many countries and affected people throughout their lifetime, causing pain, discomfort, irritability and stress. The Global Burden of Disease Study (2019) estimated that oral diseases affect close to 3.5 billion People worldwide, with caries of Permanent teeth being the most common condition. Globally, it is estimated that 2 billion people suffer from caries of Permanent teeth and 520 million children suffer from caries of Primary teeth.

In most low and middle economic countries, the Prevalence of oral diseases continues to increase with growing urbanization and changing Lifestyle. This is mostly due to insufficient exposure to fluoride (in the water supply and oral hygiene products such as toothpaste), availability and accessibility of food with high sugar content and poor access to oral hygiene services in the community.Production of food and beverages with high in sugar and tobacco and alcohol have led to a growing consumption of products that contribute to oral health conditions and other non-communicable diseases. Until now there have been only 2 national health surveys in India.

First national level epidemiological oral health survey in India was conducted by Dental Council of India in 2004. The next survey was published in 2007.In the year 2016 the first attempt was made to assess the state wise global disease burden (GDB) of India. Oral health which is an integral part of general health was totally failed to notice and not recorded in this survey. The aim of this study was to check Prevalence patterns of oral disease in the various states and union Territories of India from year 2001-2004.The survey was conducted as per WHO guidelines.

After critical analysis of previous studies we observed that there is inadequate knowledge regarding oral hygiene among students. So, for the above purpose, we are conducting the study in selected schools of Kashmir for improving knowledge and awareness regarding oral hygiene

RESEARCH METHODOLOGY

A quantitative research approach and a pre-experimental, one group pre test-post-test design was performed among a sample size of 70 students of Govt middle school Mattan Kashmir, using the purposive sampling technique. A standardized tool (approved by WHO) was used to collect the data after the approval of Institutional Ethics Committee of IUST.

Permission was granted from Zonal Educational Officer Mattan and the Headmistress of Govt Boys Middle School Mattan for data collection. Dentist and other health care professionals were involved in the structured teaching program of assessing the oral hygiene of children and providing interventions regarding maintenance of good oral hygiene. The subjects were assured anonymity and confidentiality of the information provided by them and written informed consent was obtained.

Sampling criteria:

Inclusion criteria:

- School children aged 6_12who were willing to participate.

Exclusion criteria:

- Students who were not willing to participate
- School students who were not available at the time of data collection.

RESULTS

The findings revealed that, majority of subjects 40% were in the age group of 6-8 years, about 28.6% were in the age group of 8-10 years and about 31.4% were in the age group of 10-12. Regarding the gender, majority of the study subjects were females 51.4% and 48.6% were males. In pre-test the results of the study subjects revealed that the knowledge regarding teeth was very good in 8.6%, good in 22.9%, average in 32.9%, poor in 30.0%, very poor in 5.7% and the knowledge regarding health of gums was very good in 4.3%, good in 21.4%, average in 51.4%, poor in 21.4% and very poor in 1.4%, i.e. 74.3% clean their teeth once a day and minimum students, 2.9% clean their teeth several times a week.

Also, the result shows 41.4% were consuming fresh fruits every day and 1.4% never consumed. Whereas in post-test 31.4% subjects were having good knowledge regarding health of teeth, 7.1% were having poor knowledge. 51.4% of the total subjects were having good knowledge regarding health of gums,2.8% were having poor knowledge.45.7% of the total subjects clean their teeth once a day, 2.8% never cleaned. Therefore, after giving intervention the knowledge level regarding oral hygiene was increased. Also, it was found that there is significant association between gender and knowledge regarding health of teeth ($p<0.05$).

Table no. 1: Showing percentage distribution of pre and post-test knowledge regarding teeth.

How would you describe the health of your teeth or gums?	Pre-Test (%)	Post-Test (%)
Excellent	0	7.1
Very good	8.6	24.2
Good	22.9	31.4
Average	32.9	30
Poor	30	7.1
Very poor	5.7	0
Don't know	0	0

Table no. 2: Showing percentage and frequency of dental visits.

How often did you go to the dentist during the past 12 months?	Frequency	Percent
Once	10	14.3
Twice	10	14.3
Three times	4	5.7
Four times	1	1.4
More than four times	1	1.4
I had no visit to dentist during the past 12 months	7	10.0
I have never received dental cure/visited a dentist	31	44.3
I don't know/don't remember	6	8.6
Total	70	100.0

Table no. 3: Showing association between age and knowledge regarding health of teeth.

Age		How would you describe the health of your teeth?					P-Value
		Very good	Good	Average	Poor	Very poor	
6-8 Years	Count (%)	3(10.7)	8(28.6)	11(39.3)	5(17.9)	1(3.6)	0.103
8-10 Years	Count (%)	3(15.0)	2(10.0)	6(30.0)	6(30.))	3(15.0)	
10-12 Years	Count (%)	0(0.0)	6(27.3)	6(27.3)	10(45.5)	0(0.0)	
Total	Count (%)	6(8.60)	16(22.90)	23(32.90)	21(30)	4(5.70)	

Table no.4: Showing association between gender and knowledge regarding health of gums.

		How would you describe the health of your gums?					P-Value
		Excellent	Very good	Good	Average	Poor	
Boy	Count (%)	2(5.9)	9(26.5)	18(52.9)	5(14.7)	0(0.0)	0.471
Girl	Count	1(2.8)	6(16.7)	18(50.0)	10(27.8)	1(2.8)	
Total	Count	3(4.3)	15(21.4)	36(51.4)	15(21.4)	1(1.4)	70

CONCLUSION

The school aged students in Govt Middle School Mattan and other schools of Kashmir have average knowledge regarding Oral hygiene. After structured teaching interventional program, it was found that knowledge regarding oral hygiene was enhanced. Study also revealed that there is significant relation of knowledge regarding health of teeth with demographic variable such as gender. The conclusion of the study also reveals there should be more awareness regarding Oral hygiene which can be achieved by conducting awareness programs with screening in schools at periodic intervals.

Recommendation

Based on findings of the study following recommendations were put forward for further research:

1. To generalize the results a similar study might be repeated on a large sample.
2. It is possible to perform a study by including more demographic information.
3. Control group can be used to carry out similar study.

REFERENCES

[1]. Kay E, Locker D. Effectiveness of oral health promotion; A Review London UK: Health Education Authority; 1997
[2]. Lin S & Mauk A Disease in Rural India implementing public health interventions in developing countries 105-129

[3]. WHO Health: Action plan for promotion & integrated disease prevention. New York, WHO 2006.
[4]. Agarwal V, khetri M, Singh G, Gupta G, Marya CM Kumar V, prevalence of periodontal Diseases in India. J Oral health community Dent.2010;4:7-16
[5]. Damle SG pediatric dentistry. New Delhi Arya Publishing house; 2002 Epidemiology of dental caries in India; pp75-96.
[6]. Gupta PC, Mouth cancer in India: A new epidemic J Indian Med Assoc. 1999; 97;370- 3[PubMed]
[7]. Bhat PK, Kumar A, Aruna CN. Preventive Oral health knowledge, practice and behaviour of patients attending dental institution in Bangalore, India. J Int Oral Health 2010; 2:1-6.
[8]. Patil AV, Somasundarum KV, Goyal RC. Current health scenario in rural India. Aust J Rural Health. 2002; 10:129-35
[9]. Prakash H, Mathur VP. National Oral Health care program. Indian pediatr. 2002; 39: 1001- 5.
[10]. Butt AM, Ahmad B, Parveen N, Yazdanie N, Oral health related quality of life in complete dentures. Pak oral Dent. J 2009; 29; 397-402.
[11]. Gopinath V. Oral hygiene practices & habits among dental professionals in Chennai Indian J Dent Res 2010 Apr- Jun 21(2): 195-200.
[12]. Indian Dental Association, National Oral Health program. Bombay Mutual Terrace 2012. (Last assessed on 2013 July 24)
[13]. Pandve HT. Recent advances in oral health care in India (last assessed on 2010 Jan 15)
[14]. Soumya SG, Shashibhushan KK, Pradeep MC, Babaji P, Reddy VR. Evaluation of oral health status among 5-15-Year-old School Children in Shimoga City, Karnataka, India: a cross- sectional study. Journal of clinical and diagnostic research: JCDR. 2017 Jul; 11(7): ZC42. https://doi.org/10.7860/jcdr/2017/24879.10185
[15]. Shah AF, Batra M, Kabasi S, Dany SS, Rajput P, Ishrat A. Dental caries experience among 6–12-year-old school children of Budgam district, Jammu. and Kashmir state, India. Asian Pac J Health Sci. 2015; 2:55-9. https://doi.org/10.21276/apjhs.2015.2.1.9
[16]. Shakir Hussain Rather, Dr Abhaya Agarwal, Dr Neeraj Kant Panwar, Dr Neeraj Solanki, Dr Himanshu Tomar, Dr Pema Tshering Lepcha, "Oral Health Attitude, Knowledge and Practice among 8-14 Years Old, School Going Children in Shopian, Jammu & Kashmir, India", International Journal of Science and Research (IJSR), Volume 8 Issue 1, January 2019, pp. 1482-1487, https://www.ijsr.net/get_abstract.php?paper_id=ART20194573
[17]. Al-Darwish MS. Oral health knowledge, behaviour and practices among school children in Qatar. Dent Res J (Isfahan). 2016 Jul-Aug;13(4):342-53. doi: 10.4103/1735-3327.187885.PMID: 27605993; PMCID: PMC4993063.
[18]. Al-Qahtani SM, Razak PA, Khan SD. Knowledge and practice of preventive measures for oral health care among male intermediate schoolchildren in Abha, Saudi Arabia. International journal of environmental research and public health. 2020 Feb;17(3):703.doi: 10.3390/ijerph17030703
[19]. MK JS, VM AE. Knowledge, attitude and practice on oral hygiene among primary school children in an urban area of Kancheepuram district, Tamil Nadu.
[20]. Gopikrishna V, Bhaskar NN, Kulkarni SB, Jacob J, Sourabha KG. Knowledge, attitude, and practices of oral hygiene among college students in Bengaluru city. Journal of Indian Association of Public Health Dentistry. 2016 Jan 1;14(1):75.
[21]. Scaglia P, Niknamdeh A. Assessment of current oral health knowledge attitude and oral hygiene practices among 12-year-old school children and patients attending the dental facility at Vezo Hospital in the rural village of Andavadoaka, Madagascar. Malmo University. 2017.
[22]. Mehta A, Kaur G. Oral health-related knowledge, attitude, and practices among 12-year- old schoolchildren studying in rural areas of Panchkula, India. Indian J Dent Res. 2012 Mar- Apr;23(2):293. doi: 10.4103/0970-9290.100446. PMID: 22945729.