Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr UGC approved journal no. 63854

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805 SJIF (Impact factor) 2017= 6.261; Index Copernicus value 2016 = 76.77

Original Article

Knowledge, Attitude and Practice of School Teachers Towards Oral Health in Rishikesh, Uttarakhand

Nimrah Kawoos, Preeti Dhawan, AvantikaTuli, Shivangi Chandra, Monika Varshney, Vinita Thapa

Department of Pedodontics and Preventive Dentistry, Seema Dental College and Hospital Rishikesh, Uttarakhad, India

***ABSTRACT*:**

Background: School teachers with high calibre of their training can persuade a large number of children thereby play major role in the planning and implementation of oral health preventive programs. Hence, this study was undertaken with the objective of assessing the knowledge, attitude and practice of school teachers towards oral health. **Materials & Method**: A study was conducted in various government and private schools of Rishikesh, Uttarakhand ,India. A questionnaire containing three sections to ascertain the Knowledge about oral health among the teachers, Oral health practices among teachers and Teachers' response about oral health education. A convenient sample of 100 teachers were included in the study. Self administered validated questionnaires were distributed among the subjects and the duly filled questionnaires were collected after showing the audiovisual aids regarding various oral hygiene measures at the same day from the respondents. Data hence collected was put to statistical analysis. **Results**: The mean knowledge score increased significantly from 3.17±1.43 to 8.10±1.31, attitude score increased significantly from 1.82±1.35 to 6.32±1.02 and practice score increased significantly from 3.65±1.65 to 8.72±1.98. **Conclusion**: Although not all the teachers have attempted to give oral health education to their children, almost all of them have agreed that it benefits children. There should be an attempt made by the teachers for oral health education to the children. The respondents need to improve their knowledge of dental problems and the reasons for the same. This study highlights the need to tailor oral health counseling of teachers. There needs to be an increased oral health promotion of the teachers so that they can help in an improvement of the growing child's oral health, leading to a disease-free mouth and environment.

Key words: Knowledge, Oral health education, Attitude, School teachers, Practice.

Received: 11 August 2018 Revised: 22 September 2018 Accepted: 23 September 2018

Corresponding Author: Dr. Nimrah Kawoos, Postgraduate student, Department of Pedodontics and Preventive Dentistry, Seema Dental College and Hospital Rishikesh, Uttarakhad, India.

This article may be cited as: Kawoos N, Dhawan P, Tuli A, Chandra S, Varshney M, Thapa V. Knowledge, Attitude and Practice of School Teachers Towards Oral Health in Rishikesh, Uttarakhand. J Adv Med Dent Scie Res 2018;6(10):67-72.

INTRODUCTION

Health is closely interlinked to education and good health along with good education are not only ends in themselves, but also means which provide individuals with the tools to lead productive and satisfying lives. It is commonly believed that a child's ability to attain her or his full potential is directly related to the complimentary effect of good health, good nutrition, physical activity and quality education. To attain educational achievements, children must fully participate in educational activities.[1]Oral health is an essential part of general health. Oral health promotion is considered a priority in children because of the high caries risk at this age. The importance of prevention should be inculcated early in the life of children to have its benefits.[2]

Children who suffer from poor oral health are 12 times more likely to have restricted-activity days, including

missing school, than those who do not. Annually, more than 50 million hours are lost worldwide from schools due to oral diseases. A school is not just a place for a student to receive education, but an institute which molds the behavior, attitude and perceptions towards life.Oral disease can be considered a public health problem due to its high prevalence and significant social impact.[3]Chronic oral disease typically leads to tooth loss, and in some cases has physical, emotional and economic impacts: physical appearance and diet are often worsened, and the patterns of daily life and social relations are often negatively affected.Due to the lack of incorporation of the oral health into general health promotion, millions suffer intractable toothache and poor quality of life, and end up with few teeth.[4]

School teachers can play the foremost task in imparting knowledge of the causes and prevention of common oral diseases. In schools children attain knowledge and skills which are needed to achieve their future goals along with hidden potentials are nurtured. Key responsibility of school teachers among other are personality development during elementary education.[5]

School teachers can play an effective role in health promotion as they interact with children on a daily basis, and also have close contacts with children's families. However, lack of training and support for teachers in this regard creates a great barrier for effective implementation of school health education programs.[6] School teachers can influence a large number of children by virtue of their training thus possess a major role and responsibility in the planning and execution of oral health preventive programs as school children spend most of their time with their teachers . Teachers are considered as role models to transmit values of life. A school-based program is most effective because children are approached at a time when their health habits are forming.[5] Even the Ministry of Health and Family Welfare, Government of India, accepted in principle National Oral health Policy in the year 1995 to be included in national health policy and launched the National Oral Health care Programme which envisaged the implementation of oral health education, preventive and curative services.[7]

Hence, this study was undertaken with the objective of assessing the knowledge, attitude and practice of school teachers towards oral health. The knowledge , attitude and practice was evaluated to the school teachers with the help the audio visual aids to increase the awareness of the oral hygiene in children.

MATERIALS AND METHOD

Sampling method and procedure:

The study was a school based descriptive study carried out in various primary, middle and secondary schools of Rishikesh, Uttarakhand. Permission to conduct the study was obtained from the concerned Schools.

Data collection method and tools:

A total of 100 of school teachers were selected for the study. Teachers were asked to sign a consent from before the start of the study. A questionnaire was devised for teachers to assess their knowledge, attitude and practice towards oral health care and involvement in these activities concerning with the promotion and prevention of oral health among the children.In the first part there were 10 questions regarding the tooth brushing and factors related to the gum diseases. The second part (attitude) consisted of 6 questions which were related to promotion and prevention of the various oral diseases. The third part (practice) consisted of 12 questions related to the behavior and implementation of the various oral hygiene measures. The questionnaire was divided into two parts before showing the audiovisual aids and after showing the audiovisual aids. The differences between the two were recorded , and eventually the results were tabulated accordingly.A video was made explaining in details about the various aids and measures which are required for the maintenance of the oral hygiene which included the correct ways for tooth brushing, various videos related to the gum diseases, knowledge about fluorides, dental floss and various other diseases related to oral health were included in the video.The questionnaire was distributed to the teachers before and immediately after the audiovisual aid. The questionnaire was scored to record a mean score for each of the three sections and a total score.

Data Management and statistical analysis:

The questionnaire were checked inorder to see if there were errors and incompleteness in the answers. Data summarization was done by presenting tables and graphs.Descriptive and analytical statistics were done. The mean and standard deviation was tabulated. The normality of data was analyzed by the Shapiro-Wilk test. As the data did not follow normal distribution the Wilcoxon Signed Rank test was used to check differences between groups.

RESULTS

The mean knowledge, attitude and practice score increased significantly after the use of the audio-visual aids. (Figure 1 and 2) The mean knowledge score increased significantly from 3.17±1.43 to 8.10±1.31, attitude score increased significantly from 1.82±1.35 to 6.32±1.02 and practice score increased significantly from 3.65±1.65 to 8.72±1.98.

Questionnaire containing three sections of knowledge, Attitude and Practice

APPENDIX I: KNOWLEDGE QUESTIONS (multiple choice questions)

1. Number of dentition sets in an individual
   i. 1 ii. 2 iii. 3 iv. Don't know
2. Total number of deciduous and permanent teeth
   i. 5 and 24 ii. 20 and 32 iii. 32 and 32 iv. Don't know
3. Main purpose of toothbrushing
   i.Prevention of tooth decay ii. Achievement of cleaner and brighter teeth. iii.To remove stains on teeth iv. Don't know
4. Meaning Of dental plaque
   i.Discolouration of teeth ii. Soft deposits on teeth iii. White patches on teeth. iv.Dont know
5. Meaning Of Gum bleeding
   i. Gum disease ii. Infection of tooth iii. Calcium deficiency iv. Don't know
6. Effect of Retention of sweet food on teeth
   i. can lead to dcecaying of teeth ii. calcium Deficiency iii. Leads to bleeding gums iv. Don't know
7. Effect of fluorides on teeth
   i. prevention of gum disease ii. Prevention of tooth decay iii. Cleaning of teeth iv. Don't know
8. Can health of teeth and mouth affect health of body
   i. yes ii. No iii. don't know
9. Reason for oral cancer
   i. calcium deficiency ii. Guthkha and tobacco chewing , smoking iii. Vitamin C deficiency iv.dont know
10. Is it possible to correct irregularly placed teeth
    i. Yes ii. No iii. Don't know

APPENDIX II: ATTITUDE QUESTIONS(YES/NO)

- Dentist should be visited regularly?
- Guthkha and tobacco chewing is a bad habit?
- Smoking in any form is a bad habit?
- Well cleaning of teeth can be done without using toothpaste?
- Hardness of bristles of toothbrush has any effect on teeth and Gums?
  Immediate replacement of missing teeth by artificial teeth is necessary?
- Dentist plays an important role only in treatment and not in prevention?

APPENDIX III: BEHAVIOUR QUESTIONS(multiple types and Yes or No)

- Brushing of teeth?(Y/N)
- Minimum brushing habit?
  i.Once in a day ii. twice in a day iii. Thrice and more
- When you rinse your mouth
  i. In the morning ii. In the morning and before going to bed iii. In morning , before going to bed and after eating sweet foods
- Ideal brushing material
  i. Toothpaste and Finger ii. Toothpaste And brush iii. Don't know
- Cleaning of tongue?
- Use of dental floss and mouthwash?
- Any other habits like guthkha, tobacco chewing, smoking?
- Bleeding from gums while Brushing teeth?
- Noticed anytime- white sticky deposits on teeth?
- presence of bad breath?
- Visit to dentist only after having toothache?
- Use of dye to check cleaning of teeth?

Comparison of mean knowledge, attitude and practice score before and after AV learning provided to the participants

Variable	Knowledge		Attitude		Practice	
	Before	After	Before	After	Before	After
N	40	40	40	40	40	40
Mean	3.17	8.10	1.82	6.32	3.65	8.72
S.D.	1.43	1.31	1.35	1.02	1.56	1.98
Median	3.00	8.00	2.00	7.00	4.00	8.00
Min.	0.00	6.00	0.00	3.00	0.00	6.00
Max.	7.00	10.00	6.00	7.00	7.00	13.00
Z-Value	-5.458		-5.438		-5.456	
			<0.001*			

Figure 1

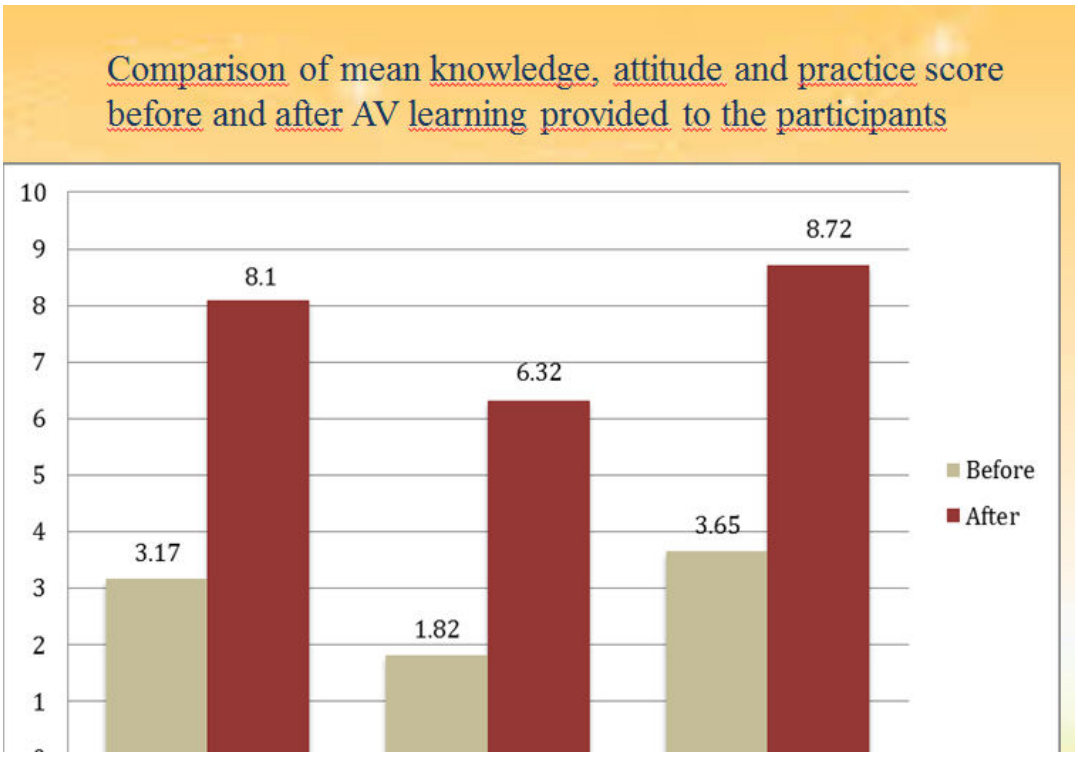

Figure 2

DISCUSSION

Knowledge attitude and practice plays an important role in the awareness of oral health, and it contributes to good oral hygiene, but unless attitude and habits are developed and put into practice , little will be gained. It is important to review the knowledge , attitude and practices of oral health of adolescents ,even though they are educated, with the objectives of inculcating healthy lifestyle practices to last for a lifetime.

In India dental awareness among various strata of society is still a farfetched dream. Hence, we have done audio-visual study regarding awareness toward oral hygiene due to lack of oral hygiene knowledge in,Rishikesh, Uttarakhanad which is first of its kind.

As the results, the study showed that most of the teachers did not have knowledge about caries, proper toothbrushing and gum diseases.

The teachers included in the study had the knowledge that most of the tooth decay was due to chocolate and sticky food which was in accordance with the study conducted by Tangade et al.[8] The teachers were aware that if the mouth is cleaned every day it could be well protected from gum diseases but they were not aware of the signs of gingival diseases. Teachers were also not aware about the role of fluoride tooth pastes in protecting the teeth from decay which was in contrast to the studies conducted by V Ramroop et al.[9].This shows the lack of knowledge regarding gingival diseases and some aspects of prevention of tooth decay among the school teachers.

Similar studies have been done by Nyandini et al.[10]that have showed deficient knowledge of the teachers about the oral health and diseases. These responses reveal that there is a need of oral health promotions through different oral health programs. In a similar study done by San-San Htway revealed that high practice score was achieved by (223,56.03%) of teachers (mean reported practice score of 11.4 with SD 4.5), and that there was statistically significant difference in practice between the age groups, but no statistically significant difference between different service durations.Win Naing's.[8] study revealed that 245 (63.63%) of the teachers achieved high level of practice scores (mean reported practice score of 23.44 with SD 3.7)11; that the urban teachers were higher in their levels of practice than the rural teachers, and this association was statistically significant; and statistically significant association between attitude scores of teachers and practice scores.

Undoubtedly, teachers are most important personnel to be involved in any school oral health activities. It is also important for a teacher to have adequate background knowledge about oral health and a supportive attitude toward extra-curricular activities. The majority (95%) teachers in the present study had an overall good oral health knowledge (under "very good" and "average" categories).Nearly, all of them recognized the importance of primary teeth, etiology, management, and preventive aspects of dental caries and periodontal disease. The figure was much higher than those reported in the previous studies.[13]It becomes very interesting to note that in spite of lack of training, primary school teachers in the region are well informed about oral health. The high oral health knowledge could be attributed to multiple information sources available such as internet, newspapers, television, and radio. The participant teachers of the present study had a positive attitude toward school oral health programs. In contrast, some studies have shown "lack of interest" and "unfavorable attitude" of school teachers in conducting school oral health programs.[14]

In the present study, majority of the respondents believed that oral diseases to a large extent are preventable. They also believed that they have a significant role in the prevention and that dental health education should be included in the primary school curriculum. Nearly, all the teachers agreed to participate in dental health training if conducted in future. In addition, "staff attitude" was least perceived as a barrier to school oral health programs. Such well-informed teachers with positive attitude regarding oral health provide an ideal setting for any school-based oral health programs.

Schools have a great potential for influencing the health behavior of the child.[15.]During this period, the child goes through active developmental stages. The role of teachers during these developmental stages of the child is very important. Hence, school teachers can play a major role in oral health education programs at school levels. Schools have tremendous capacity to be supportive of programs involving preventive dentistry for children[16.]

It was found that teachers traditionally have educated children regarding oral health and often participated in schoolbased prevention programs.[17].

CONCLUSION

The school teachers need to be motivated to increase the awareness among themselves that oral health does play an important role in general health. The respondents need to improve their knowledge of dental problems and the reasons for the same. There is a need to improve their oral hygiene practices through promotion of other oral hygiene practices like floss apart from the regular methods for maintenance of a clean mouth. Although not all the teachers have attempted to give oral health education to their children, almost all of them have agreed that it benefits children. There should be an attempt made by the teachers for oral health education to the children.

Oral health education programs could be included in the school curriculum for the children to emphasis a positive attitude toward oral health. In order to positively influence and improve the oral hygiene practices among children: Community dental health carnivals, costumed characters and oral health booths and children's dental health shows could be arranged. Dental professionals should seize the opportunity to educate the public and children in order to

enhance the awareness among children and impart a positive attitude toward oral health.

For communication to be effective, the message must be understood and remembered, therefore future research should focus on methods of improving communication with lay people and patients.

REFERENCES

1.Htun YM, Lwin KT, Oo NN, Soe K, Sein TT.Knowledge, attitude and reported practice of primary school teachers on specified school health activities in Danuphyu Township, Ayeyarwaddy Region, Myanmar. SEAJPH 2013;3(1):24-29.

2. Nagdev P, Murali R, Shamala A, Yalamalli M. Oral Health Status and Knowledge, Attitude, Practice towards Dental Caries and Periodontal Diseases Prevention among School teachers in Bangalore North-4. Arch of Dent and Med Res 2016;2(2):11-17.

3. Amith HV, D'CruzAM, Shrirahatti RV. Knowledge, Attitude and Practice Regarding Oral Health Among the Rural Government Primary School Teachers of Mangalore, India. J Dent Hyg 2013; 87(6):362-369.

4. Sheiham A. Oral health, general health and quality of life. Bull World Health Organ. 2005;83(9):64.

5. Ain TS. Knowledge, Attitude and Practice of School Teachers Towards Oral Health In Srinagar, Kashmir. IOSR-JDMS 2016;15(10):88-90.

6. Tikare S, AlQahtani NA. Oral health knowledge and attitudes of primary school teachers toward school-based oral health programs in Abha-Khamis, Saudi Arabia. Saudi J Oral Sci 2017;4:72-7.

7. World Health Organisation Regional Office for Europe, European Commission and Council of Europe. Introduction to the European Network of Health Promoting Schools.WHO, Public 1999.

8. Tangade PS, Jain M, Mathur A, Prasad S, Natashekara M. Knowledge, Attitude and Practice of Dental Caries and Periodontal Disease Prevention among Primary School Teachers in Belgaum City, India. PesquisaBrasileiraemOdontopediatria e ClínicaIntegrada 2011;11(1):77-83.

9. Ramroop V, Wright D, Naidu R. Dental Health Knowledge and Attitudes of Primary School Teachers toward Developing Dental Health Education. West Indian Med J 2011;60(5):577-80.

10. Nyandindi U, Palin-Palokas T, Milen A, Robison V, KombeN,Mwakasagude S. Participation, willingness and abilities of school teacher in oral health education in Tanzania. Community Dent health. 1994;11:101-04.

11. San-San-Htway. Perspective of School Teachers on School Health in Yangon Division. [thesis]. MMedSc (Public Health). Yangon: University of Medicine , 1998.

12. Win-Naing. Role of teachers in School Health in Mingladon Township, Yangon Division in 2008. [thesis] MMedSc (Public Health). Yangon: Defence Services Medical Academy, 2008.

13. Petersen PE, Mzee MO. Oral health profile of schoolchildren, mothers and schoolteachers in Zanzibar. Community Dent Health 1998;15:256-62.

14. Vanka A, Yadav NS, Saxena V, Sahana S, Shanti G, Shivakumar GC. Oral health acquaintance, approach and practices among school teachers in Bhopal, central India. J Orofac Res 2012;2:15-9.

15. Tones BK. Socialisation, health career and the health education of the schoolchild. J Inst Health Educ 1979;17(1):23-28.

16. Kenney JB. The role and responsibility of schools in affecting dental health status – a potential yet unrealized. J Public Health Dent 1979 Fall;39(4):262-267.

17. Mullins R, Sprouse W. Dental health knowledge of elementary school teachers in Bowling Green, Kentucky, 1972. J Am SocPrev Dent 1973 Jan-Feb;3(1):60-65.

Source of support: Nil **Conflict of interest:** None declared