ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 8, Issue, 10, pp.40665-40668, October, 2016

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

SCHOOL CHILDREN KNOWLEDGE AND PRACTICES REGARDING ORAL HYGIENE

[1,*]Ms. Simarjot Kaur, [2]Mrs. Meenakshi and [3]Dr. Namita Budhiraja

[1]M.Sc. (N) Student, Department Community Health Nursing, DMC & Hospital, College of Nursing Ludhiana, India
[2]Lecturer, Department of Community Health Nursing, DMC & Hospital, College of Nursing Ludhiana, India
[3]Professor and Head, Department of Dentistry, DMC and Hospital, Ludhiana, India

ARTICLE INFO

Article History:
Received 23rd July, 2016
Received in revised form
04th August, 2016
Accepted 14th September, 2016
Published online 30th October, 2016

Key words:
Oral Hygiene,
School Children,
Structured Teaching Programme.

ABSTRACT

Background of the study: School health services are an economical and powerful means of raising standard of community health, especially for the future generations. School is considered as a best setting for the positive health and prevention of diseases, awakening health consciousness in which the child grows and develops.
Objective: This study was conducted to compare pre-test and post-test knowledge and practices score of control and experimental group.
Methodology: A quasi-experimental design was used to assess the effectiveness of structured teaching programme on knowledge and practices of oral hygiene among children at selected schools of Ludhiana city, Punjab. The sample of the study was children of 6th standard and sample size was 100. Structured questionnaire to assess the knowledge and observational check list to assess the practices was used for data collection. Data was collected by self report and observational method and analyzed by using descriptive and inferential statistics.
Results: In control group pre-test knowledge score was (11.64) and post- test knowledge score was (12.12), pre-test practices score was (3.00) and post- test practices score was (3.02). The difference between pre-test and post test mean knowledge and practice score were statistically non- significant. In experimental group pre-test mean knowledge score was 9.96 and post- test knowledge score was 21.5, pre-test mean practices score was 2.54 and post- test practices score was 8.68. The difference between pre-test and post –test mean knowledge and practice score were highly significant p=0.001. It was concluded that structured teaching had impact on knowledge and practices regarding oral hygiene in school children.
Conclusion: The study findings implied that the implementation of structured teaching programme has a vital role in improving the knowledge and practices of the children regarding oral hygiene.

Citation: Ms. Simarjot Kaur, Mrs. Meenakshi and Dr. Namita Budhiraja. 2016. "School children knowledge and practices regarding oral hygiene", *International Journal of Current Research*, 8, (10), 40665-40668.

INTRODUCTION

Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity.[i] Oral health is fundamental to general health and well being, significantly impacting on quality of life. It can affect general health conditions. Oral health means more than healthy teeth. The health of the gums, oral soft tissues, chewing muscles, the palate, tongue, lips and salivary glands are also significant.

Corresponding author: Ms. Simarjot Kaur,
M.Sc. (N) student, Department Community Health Nursing, DMC & Hospital, College of Nursing, Ludhiana, India.

Oral health is an important aspect of the personal health of individual teeth is essential not only for mastication of food but also for good appearance and clear speech.[ii] A child is a precious gift which has lots of potential with-in, which can be the best resource for nation if raised and moulded in good manner. Healthy children can become healthy citizen constituting a healthy nation. Healthy children are also successful learners. School age children represent about 25% of total population, so it indicates that health care of the school children can contribute to the overall health status of the country. Children who suffer from poor oral health are 12 times more likely to have more restricted-activity days including missing school than those who do not.[iii] Premature loss of deciduous teeth may lead to mal-alignment of the permanent teeth, impacting on an individual's appearance.

The school age child has multiple problems, among them one of the most existing problems are related to oral health. The goal of World Health Organization "Health for all by the year 2025" includes oral health. The school age child has multiple problems, among them one of the most existing problems are related to oral health. Oral diseases can lead to irreversible damage and unnecessary pain, and further result in dental anxiety, general health problems, depression, low self-esteem, lost school time and poor quality of life.[iv] In India, dental caries affects more than four fifths of children in the age group of 6-19 years[v]. Regarding the prevalence of periodontal diseases, it ranges from 55% in adolescents to 80% in adults.[vi] Hence the importance of preventing oral problems is at the school age level is very essential.

MATERIALS AND METHODS

The research design used in this study was quasi- experimental in nature. The study was conducted at Govt. High School, Haibowal kalan, and Govt. Senior Secondary School, PAU of Ludhiana city, Punjab.The sample included 100 schoolchildren on the basis of inclusion and exclusion criteria were selected. Total enumerative sampling technique was used for the selection of sample this study. Structured questionnaire to assess the knowledge and observational checklist to assess the practices was used for data collection. The tool consisting of Part A (Socio demographic profile consisting of age, Age, Gender, Habitat, Education of mother, Education of father, Occupation of mother, Occupation of father, Socio-economic status) Part B (Structured Questionnaire to assess knowledge of oral hygiene consisting of 25 items related to knowledge regarding oral hygiene & Part C (Observational checklist to assess practices of oral hygiene Checklist was developed on the basis of standardised practices as prescribed by American Dental Hygienists' Association. This part consists of 10 items.) The content validity of tool was ensured by expert's of various specialties i.e. Paediatric nursing, Medical-surgical nursing, Psychiatric nursing, Gynaecological & Obstetrical nursing, Community health nursing and also from Community medicine to validate the content and language. The pilot Study was conducted on 14 school children (7 in control and 7 in experimental group) studying in selected schools. The experimental group was taken from Saini Public School, Haibowal Kalan and control group was taken from Government Senior Secondary School, Haibowal khurd. Data was collected through structured questionnaire and observational checklist. Pre-test and post-test was taken and but structured teaching programme was given only to experiment group for 1 hour. Reliability of knowledge questionnaire was determined by split half method using Karl Pearson's coefficient of correlation formula; Reliability coefficient was found to be r = 0.86. Reliability of observational checklist was determined by inter- rater method using proportion of agreements i.e. r = 0.8.

OBSERVATIONS AND RESULTS

- Findings of present study revealed that 44 % of school children of control group were of 12 years of age while 38% of school children of experimental group were of 14 years of age
- 62% males in control group while in experimental group were 58% females.
- In the control group and experimental group 86% and 68% were residing in urban habitat respectively.
- 52% of mothers of children in control group had secondary education while 50% of mothers of children in experimental group were illiterate.
- 54% and 64% of mothers of children of control group and experimental group were home maker respectively.
- 58% of fathers of children in control group had secondary education, while 54 % fathers of children in experimental group had elementary education.
- 40% of fathers of children of control group were doing service while 50% of the fathers of children of experimental group were labourer.
- 56% of children of control group were belonging to lower middle class III while 64% children of experimental group were belonging to lower class V.

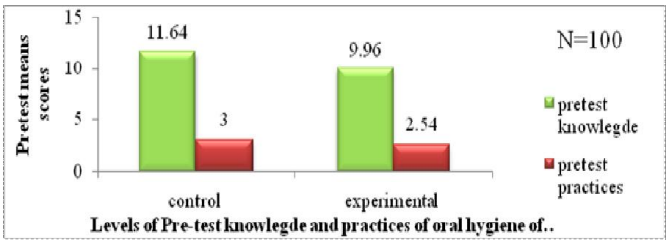

Figure 1. Pre-test knowledge and practices score of control and experimental group

Fig.1. depicts the pre-test mean knowledge and practices scores of control group and experimental group regarding oral hygiene among school children. Statistically it was found that the pre-test mean knowledge and practices scores were 11.64 and 3 in control group, while these were 9.96 and 2.54 in experimental group. The pre-test knowledge score of control group and experimental group was average while pre-test practices score was poor.

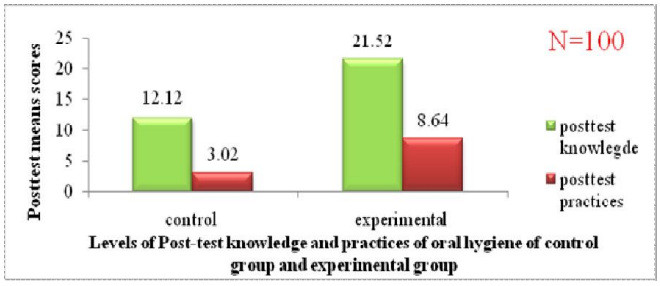

Figure 2. Levels of Post-test knowledge and practices of oral hygiene of control group and experimental group

Fig.2. depicts the post-test mean knowledge and practices scores of control group and experimental group regarding oral hygiene among school children. Statistically it was found that the post-test mean knowledge and practices scores were 12.12 and 3.02 in control group, while these were 21.52 and 8.64 in experimental group. The post-test knowledge score of control group was average of control group it was good. The post test practices score of control group was poor but of experimental group it was good.

Fig 3. interprets comparison of pre-test and post-test mean knowledge score among children regarding oral hygiene in control and experimental group. In control group pre-test knowledge score was (11.64) and post- test knowledge score was (12.12). The difference between pre-test and post test mean knowledge score was statistically non- significant at $p<0.05$ level.

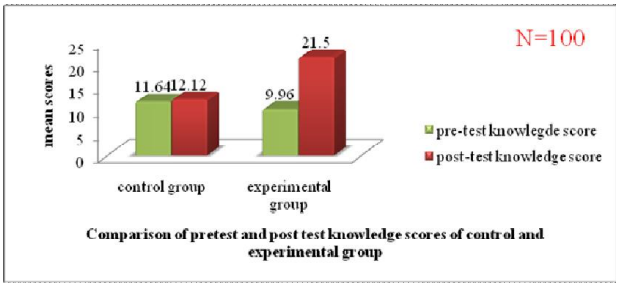

Figure 3. Comparison of pre-test and post-test knowledge scores of control and experimental group

In experimental group pre-test mean knowledge score was 9.96 and post- test knowledge score was 21.5. The difference between pre-test and post –test mean knowledge score was highly significant.

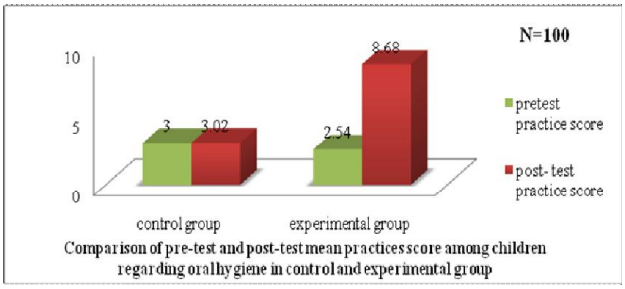

Figure 4. comparison of pre-test and post-test mean practices score among children regarding oral hygiene in control and experimental group

Fig 4 interprets comparison of pre-test and post-test mean practices score among children regarding oral hygiene in control and experimental group. In control group pre-test practices score was (3.00) and post- test practices score was (3.02). The difference between pre-test and post test mean practices score was statistically non- significant at $p<0.05$ level. In experimental group pre-test mean practices score was 2.54 and post- test practices score was 8.68. The difference between pre-test and post –test mean practices score was highly significant.

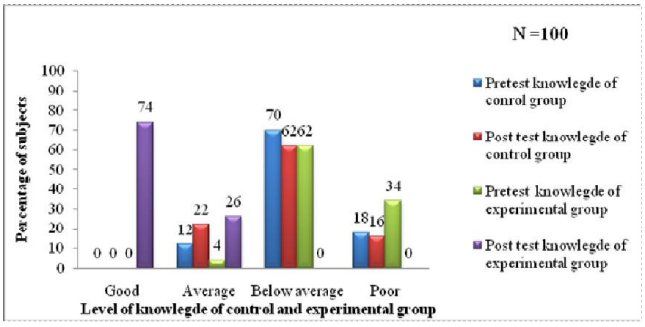

Fig. 5 Distribution of school children in control and experimental group as per level of knowledge

Fig. 5 depicts the pre-test and post- test level of knowledge of the school children of control and experimental group In experimental group pre-test, 4% of subjects had average knowledge, 62 % of subjects had below average knowledge followed by 34% poor and none of subject had good knowledge. In post-test, after the implementation of structured teaching programme, 74% subjects had good knowledge, 26% average knowledge.

While in control group pre-test, 12% of subjects had average knowledge followed by 70% of subjects had below average knowledge, 18% had poor, and none of subject had good knowledge. In post-test, 22% of subjects had average knowledge followed by 62% of subjects had below average knowledge, 16% had poor, and none of subject had good knowledge.

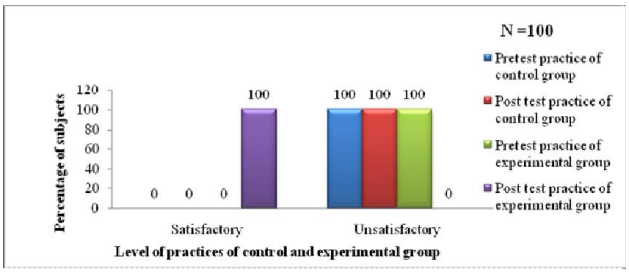

Fig 6. Distribution of school children in control and experimental group as per level of practices

Fig.6 depicts the pre-test and post- test level of practices of the school children of control and experimental group. In experimental group pre-test, 100% subjects had unsatisfactory practices while none of subjects had satisfactory practices regarding oral hygiene. While in post-test, 100% subjects had satisfactory practices while none of subjects had unsatisfactory practices regarding oral hygiene among school children. In control group both pre-test and post-test, 100% subjects had unsatisfactory practices while none of subjects had satisfactory practices regarding oral hygiene.

DISCUSSION

The mouth is regarded as the mirror of body and gateway to good health.[vii] Children who suffer from poor oral health are 12 times more likely to have more restricted activity days, including missing schools, than those who do not. Annually more than 50 million hours are lost from school due to oral diseases.[viii] The present study revealed that the pre-test mean knowledge and practices score was found to be 11.64 and 3 respectively in control group, while these were 9.96 and 2.54 in experimental group respectively. It is supported by a similar study by Kaur M, Kumari L (2012) revealed in a pre-experimental study that knowledge mean score of pre-test was 14.91 which depicted that school children had poor level of knowledge scores.[11] In the present study a structured teaching programme was prepared about knowledge and practices of oral hygiene and delivered with the help of charts, flash cards and demonstration. It is supported by D'Cruz and Aradhya (2012) who investigated the effectiveness of an oral health education (OHE) programme on oral hygiene knowledge, practices, plaque control and gingival health of 13- to 15-year-old school children in Bangalore city .[ix] The present study revealed that the post-test mean knowledge and practices score was found to be 12.12 and 3.02 respectively in control group, while these were 21.52 and 8.64 in experimental group. These results were supported by a similar study by Kaur and Kumari (2012) revealed that knowledge mean score of post-test was 23.01 which depicted that schoolchildren had average level of knowledge scores regarding dental hygiene. Findings of the present study revealed there was a significant change in the knowledge and practices score of the subjects (p value= 0.01 and p value=0.02 respectively) from the pre- test to the post-test of the experimental group.

It was concluded that structured teaching had impact on knowledge of school children regarding oral hygiene. Similarly Bellen RC(2008) revealed in a quasiexpertimenatl study that there was a significant change in the knowledge scores of the respondents (p value= 0.00) from the pre- intervention to the post-intervention exam . It concluded that the intervention was effective in increasing the knowledge of the respondents regarding dental health. The study also showed an improvement on the skills of the respondents in the proper way of tooth brushing. [12] Findings of the present study revealed that the association of difference in the knowledge and practices score with these socio-demographic characteristics is found to be statistically non-significant except Socio-economic status with knowledge score found to be significant at p=0.02 & p=0.01 in the control group and experimental group respectively. Similarly Sogi G.M Bhaskar D.J revealed that the caries experience deteriorated with socio-economic status[x]

Conclusion

- In control group pre-test, subjects had below average knowledge and unsatisfactory practices In post-test, subjects had below average knowledge, had unsatisfactory practices
- In experimental group pre-test, subjects had below average knowledge unsatisfactory practices In post-test, after the implementation of structured teaching programme, subjects had good knowledge and satisfactory practices
- This study also depicted that there is no association of knowledge and practices score with selected socio-demographic characteristics except socio-economic status with post-test knowledge score in both control and experimental group.

Acknowledgement

I am very grateful to my Guide Mrs. Meenakshi, Lecturer, CON, DMC &Hospital, Ludhiana for her expert guidance and precious time given for study which enabled me to comprehend the intricacies of my research project. I feel glad to thank my Co- Guide esteemed Dr. Namita Budhiraja, Professor and head, Department of Dentistry, DMC & Hospital, Ludhiana, who despite of his busy schedule guided and encouraged me at each step. I am sincerely grateful to Dr. RK Soni, Associate professor, DMC&H, Ludhiana for his invaluable advice and mature guidance in the statistical work during the project.

It gives me an immense pleasure to heartily acknowledge the constant prayers, ever encouraging moral support and selfless sacrifices rendered by my parents. All may not have been mentioned but none is forgotten.

REFERENCES

[i] WHO. Oral health facts sheets, 2013. Assessed on http://www.who.int/topics/oral_health/en

[ii] K Park, Essential of Community Health Nursing, M/s Banarsidas Bhanot Publishers, third ed; 2000:32.

[iii] US General Accounting Office's. Oral health: Dental Disease Is a Chronic Problem among Low-Income Populations. Report to Congressional Requesters. Washington, 2000.

[iv] WHO. Oral health facts sheets, 2013: 318. Available at http://www.who.int/topics/oral_health/en/

[v] Lin S, Mauk A. Diseases in Rural India. Implementing Public Health Interventions in Developing Countries. 105-129.

[vi] Broadbent JM, Thomson WM, Boyens JV, Poulton R. Dental plaque and oral health during the first 32 years of life. Journal of the American Dental Association. 2011; 142: 415-426.

[vii] Grewal Navneet, Kaur Manpreet. Status of oral health awareness in Indian Children as compared to western children:A thought provoking situation. Journal of Indian Society of Paedodontics and Preventive Dentistry 2007;25(1):15-9.

[viii] World health Organization. Oral Health Promotion: An Esssential Element of a Health–promoting School. Geneva: WHO; 2003.

[ix] D'Cruz A Aradhya S. Impact of oral health education on oral hygiene knowledge, practices, plaque control and gingival health of 13- to 15-year-old school children in Bangalore city, *I nt J Dent Hyg*., 2012 Jun 30

[x] Sogi G.M, Bhaskar D.J. Dental caries and Oral Hygiene Status of school children in Davangere related to their Socio - Economic levels : An Epidemiological study. *J Indian Soc Pedo Prev Dent*, December (2002) 20 (4) : 152-157 reviewed on http://medind.nic.in/jao/t02/i4/jaot02i4p152o.pdf

[xi] Kaur M, Kumari L, A pre-experimental study on the effectiveness of structured teaching programme on knowledge regarding Dental hygiene among middle school children in selected schools of Jalandhar district, Punjab, 2012. *International Journal of Advancements in Research & Technology*, Volume 2, Issue 3, March-2013 reveiwed on 26-3-12 http://www.ijoart.org/docs/School-children-knowledge-REGARING-Dental-hygiene.pdf

[xii] Harikiran AG, Pallavi SK, Hariprakash S, Ashutosh, Nagesh KS, Oral health-related KAP among 11- to 12-year-old school children in a government-aided missionary school of Bangalore city, *Indian Journal Dental Research*, 2008 Jul-Sep;19(3):236-42

****