

Evaluation of the Effectiveness of a Primary Preventive Dental Health Education Programme Implemented Through School Teachers for Primary School Children in Mysore City

Jaya Naidu, B. Nandlal¹

Department of Pedodontics and Preventive Dentistry, VIDS and RC, Bengaluru, Karnataka, ¹Department of Pedodontics and Preventive Dentistry, J.S.S Dental College and Hospital, Mysore, Karnataka, India

Received : 19-07-16.

Accepted : 28-02-17.

Published : 29-03-17.

INTRODUCTION

In India, oral health is being greatly hampered by an epidemic of dental and oral diseases. With a largely privatized dental care set up, the utilization of dental services is restricted by socioeconomic realities. Traditional dental care comprising mainly of curative and rehabilitative services has had only a marginal effect on the population's oral health. India's vast population size, limited manpower, and resources make this approach unrealistic and of questionable efficacy. Combating these problems through the primary level of prevention, in contrast, would be efficient and economical, as this would lead to reduction in the need for corrective care and utilize less manpower and material.^[1-3]

ABSTRACT

Aims and Objectives: The present study was conducted with the aim of evaluating the effectiveness of a Primary Preventive Dental Health Education Programme conducted for 6–12-year-old primary school children in Mysore City.

Materials and Methods: A total of 12 schools, one each in the category of Government, Aided, and Unaided, were randomly selected per zone viz., North, South, East, and West. These 12 schools constituted the study group where the Primary Preventive School Dental Health Education Programme (PPSDHEP) was implemented. Two additional schools were selected at random from the four zones to serve as the control. A total of 926 children participated in the study. The PPSDHEP involved the second-level transfer of preventive package wherein the oral health education was imparted to the school children by schoolteachers trained by the investigator. Among the parameters for evaluating the outcome of the programme were the pre and post-programme assessment (at the baseline and at follow-up, i.e., after 6 months) of knowledge, attitude, and practice (KAP), dental caries status, oral hygiene, and gingival health status.

Results: The results suggest that the PPSDHEP resulted in bringing about an enhancement in the KAP towards oral health and also an improvement in dental caries, oral hygiene, and gingival health status of the school children in the study group.

Conclusion: The present study supports the implementation of similar programmes in schools and the contention that schoolteachers are suitable personnel for imparting dental health education to school children on a regular basis.

KEYWORDS: Attitude, knowledge, practices (KAP), school dental health education program, school teachers

Dental health education (DHE), that aims at prevention is believed to be a cost-effective method for promoting oral health.^[4] The school system has emerged as the most practical and logical setting to implement DHE programmes, providing an opportunity to reach the largest

Address for correspondence: Dr. Jaya Naidu,

Department of Pedodontics and Preventive Dentistry, VIDS, No 82
EPIP Area, Nallurahalli, Whitefield,
Bengaluru - 560 066, Karnataka, India.
E-mail: jayanaidu@hotmail.com

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How to cite this article: Naidu J, Nandlal B. Evaluation of the effectiveness of a primary preventive dental health education programme implemented through school teachers for primary school children in Mysore city. J Int Soc Prevent Communit Dent 2017;7:82-9.

Access this article online

Quick Response Code:



Website: www.jispcd.org

DOI: 10.4103/jispcd.JISPCD_326_16

number of children, during early stages of development when habit patterns are being formed and can easily be modified or changed.^[5,6] The school setting provides an environment conducive to learning and reinforcement for a considerable period of time and is suitable for disseminating DHE to even those children who do not have access to any other sources of information such as dental clinics.

According to the World Health Organization (WHO), schoolteachers occupy a privileged position as deliverers of DHE.^[7] Schoolteachers have a daily influence on children and the close relationship built in classrooms allows teachers to individualize information to suit each child. Moreover, teachers are skilled in educational psychology. Oral health concepts and practices can be augmented and reinforced by teachers, who can work closely with the dental professional, thereby bringing about significant improvement in oral health status.^[8] Utilizing the services of schoolteachers and the school infrastructure also helps to lower the overall cost for executing DHE programmes.

Few studies have been carried out to demonstrate the impact and effectiveness of school-based DHE programmes in India and to evaluate the efficacy and feasibility of using schoolteachers for imparting DHE to schoolchildren.^[9-14] This study was conducted with the aim of assessing the same through the implementation of the Primary Preventive Dental Health Education Programme.

MATERIALS AND METHODS

This interventional study was conducted over a period of 6 months from September 2000 to February 2001. The study was approved and cleared by the Institutional Ethical Committee, JSS Dental College and Hospital, Mysore, Karnataka. Permission was obtained from the Block Education Officer to conduct the study following which the school authorities were approached, the purpose of the programme explained and approval obtained.

SELECTION OF SCHOOLS

A list of schools in Mysore City was obtained from the Block Education Office. One school in the category of Government, Aided, and Unaided was selected in each of 4 zones viz., North, South, East, and West using simple random sampling procedure. Twelve schools were selected in this manner, which together constituted the study group, where second-level transfer of preventive package was enforced. Two additional schools were selected at random from the 4 zones to form the control group.

SELECTION OF SAMPLE

Children in the age group of 6–12 years formed the target group. In each school, a sample of 10–20% of the children in each class (Std. I to Std. VII) were selected

at random from the Roll Call list of students without associating any bias but for sex. At the baseline, the sample comprised 972, 6–12-year-old schoolchildren of both sexes. After 6 months, 926 children were available for re-examination out of the 970 children who had initially participated in the study [Table 1]. The attrition rate was less than 5%.

INCLUSION AND EXCLUSION CRITERIA

Informed consent of parents and school authorities and no DHE programs conducted in the schools in the past were criteria under consideration for enrolling schools into the program. Children with ongoing orthodontic treatment were excluded from the study.

KNOWLEDGE, ATTITUDE, AND PRACTICE PROFORMA

A pre-prepared knowledge, attitude, and practice (KAP) Proforma, available in the department, which was based on questionnaires of previously conducted studies,^[9,15] was modified to suit the requirements of the present study and used for assessing the KAP of school children towards oral health. It was tested on a group of 6–12-year-old children to assess its suitability.

DISEASE RECORDING PROFORMA

A pre-prepared disease recording proforma available in the department was used for recording and evaluating dental caries status, oral hygiene, and gingival health status. Gingival health and oral hygiene assessment was carried out using Gingival Index of Loe and Silness (1963),^[16] and Plaque Index of Silness and Loe (1964).^[17] Dental caries was assessed according to Modified Møllers Index (1966).^[18]

ORAL HEALTH EDUCATION MATERIAL

Specially prepared standardized education material in the form of flipcharts, models for brushing demonstration, and lessons designed to be integrated into the academic curriculum were used for imparting oral health education to the children. As the level of intelligence and comprehension differs at different ages, the students were

Table 1: Distribution of sample as per age and sex

Age group in years	Sex	Group				Total
		Study group		Control group		
		No	%	No	%	
6-8 (Younger children)	Male	167	51.07	27	48.71	194
	Female	160	48.93	29	51.78	189
	Total	327	100.00	56	100.00	383
9-12 (Older children)	Male	235	50.65	40	50.63	275
	Female	229	49.35	39	49.37	268
	Total	464	100.00	79	100.00	543
Total		791		135		926

divided into two age groups viz. 6–8 years and 9–12 years, and the lessons were designed to be suitable for each age group. All the children on roll in the 12 schools constituting the study group received a copy of the lesson meant for the specific age group. Free toothbrushes and toothpaste were also distributed to the children. In addition, following oral health examination, a report on the dental status of the child was sent home to the parents.

METHODS

Procedure for recording knowledge, attitude, and practice

Children of both the study and control schools participated in personal interviews conducted by the investigator on the basis of the pretested questionnaire. The interviews were administered in the standardized manner. Each question was read to the child and the response was recorded on the questionnaire. The interview method was chosen since children constituted the target group.

Procedure for recording plaque and gingival inflammation

Gingival health and oral hygiene assessment was carried out using Gingival Index of Loe and Silness (1963) and Plaque Index of Silness and Loe (1964). The evaluation was carried out only on selected teeth [modified index teeth].

Procedure for recording dental caries

The examinations were conducted under adequate daylight by seating the children away from direct sunlight. Dental caries was recorded according to Modified Møller's Index (1966), on a computerized proforma. The number of decayed and filled primary teeth and surfaces, dft and dfs, respectively, and the number of decayed, missing, and filled permanent teeth and surfaces, DMFT and DMFS, respectively, were assessed for each person. Before the start of the study, the investigator was trained to make consistent clinical judgement of dental caries using the Modified Møller's Index criteria. Calibration and standardization were carried out with an intraexaminer level of agreement of 80%.

Teachers training programme and school dental health education programme

Physical education teachers and class teachers of all the schools in the study group were invited to participate in the teachers training programme. The teachers were trained on oral health education by means of a lecture supported by slides and a practical session on plaque and brushing demonstration. The participating teachers were instructed in the methodical use of the standardized education material. In addition, the class teachers were individually instructed in the use of the dental health

lessons. The physical education teachers educated the children regularly once every fortnight during the physical training classes using the flip charts and models for brushing demonstration, while class teachers were instructed to conduct regular readings of the dental health lesson during zero/moral science period. Discussion on the content of the lessons with active involvement on part of the children was encouraged. Constant repetition, reinforcement, and practice were stressed on, as these are essential to bring about a change in behavior. A constant check was kept on the motivation level and performance of the teachers through regular visits to the school during the entire study, which lasted 6 months.

STATISTICAL ANALYSES

Data entry and analysis was conducted using Microsoft Excel and SPSS Statistical Software for Windows (SPSS Inc. Released 1997. Version 7.5. Chicago, Illinois). The data collected were analyzed using suitable statistical techniques such as z test for proportions, t-test for two means, analysis of variance, and Duncan's Multiple Range Test.

RESULTS

KNOWLEDGE

At follow-up, the increase in the percentage of children from 99.14% to 100% in the older age group who gained the knowledge that brush and paste is the best method of cleaning teeth was found to be statistically significant ($P < 0.05$). The percentage of children having the knowledge of twice daily brushing increased to 94.49% in the younger children and 97.84% in the older children of the study group ($P < 0.001$) at follow-up. In the control group, no significant changes occurred in this regard. The percentage of children having the knowledge that excessive intake of sugar causes dental decay increased in both the younger and the older children of the study group ($P < 0.001$) at follow-up with the percentage of the children having this knowledge increasing to 96.94% in the younger children and to 98.92% in the older children of the study group ($P < 0.001$). At follow-up, the changes in the knowledge regarding the etiology of dental caries were nonsignificant in the control group. Following the implementation of the oral health education programme the percentage of children having the knowledge that sugar exposures per day should not be more than three times per day increased to 72.48% and 87.71% of the younger and older children of the study group ($P < 0.001$). In the control group, no significant changes occurred in this regard. The increase in the number of children having some knowledge regarding plaque was found to be statistically significant ($P < 0.001$) in both the younger and older children of the study group at

follow-up with 59.02% and 84.48% of the younger and older children having gained some knowledge in this regard, respectively. The knowledge change regarding plaque was non-significant in the Control Group ($P > 0.05$). The increase in the number of children having correct knowledge about fluoride at follow-up was found to be statistically significant in both the younger ($P < 0.01$) and older children ($P < 0.001$) of the study group. Knowledge regarding the role of fluoride was nonexistent in the control group at follow-up.

PRACTICES

Following oral health education (at follow-up), brush was being employed as the oral hygiene measure by 100% of the children in the study group. This increase was found to be statistically significant ($P < 0.001$). At follow-up, the most prevalent frequency of brushing was twice daily in both the younger and the older children of the study group. This increase was found to be statistically significant ($P < 0.001$). The change in brushing frequency in the control group was found to be statistically nonsignificant. Following the implementation of the oral health programme, the most prevalent method of brushing in the study group was the circular method while in the control group it remained the horizontal method. The percentage of children following this method increased from 0.30% to 86.24% and 0.65% to 91.38% for the younger and the older age groups of the study group, respectively ($P < 0.001$). Consequently, a decline was seen in the practice of the other methods. The percentage for which decreased from 89.30% to 12.54% and 84.05% to 7.76% for the horizontal method, for the younger and older age group respectively ($P < 0.001$). The percentage of children following the vertical method decreased from 2.45% to 0.30% ($P < 0.05$) and 5.39% to 0.43% ($P < 0.001$) for the younger and older children, respectively. A statistically nonsignificant decrease was seen in the percentage of children following "both horizontal and vertical method" of brushing in the older age group. In the control group, nonsignificant changes occurred in the practice of the various methods of tooth brushing ($P > 0.05$).

After the implementation of the oral health education programme, the percentage of children in the study group practicing ≤ 3 sugar exposures per day increased to 95.72% in the younger age group. The increase was found to be statistically significant ($P < 0.001$). Consequently, the percentage of children practicing four and five times a day sugar exposure decreased from 35.17% to 4.28% ($P < 0.001$). In the older children, the percentage of those practicing ≤ 3 sugar exposures per day increased to 95.04% ($P < 0.001$). The percentage of those practicing four and five times per day sugar exposure decreased significantly to 4.52% and 0.43%, respectively ($P < 0.001$), while the

percentage of those practicing six times per day sugar exposure became 0.00% ($P < 0.05$). In the control group, nonsignificant changes occurred in the practice of various frequencies of sugar exposure ($P > 0.05$).

ATTITUDE

The increase in the number of children having positive attitude towards the treatment for dental decay was found to be statistically significant ($P < 0.001$) for both the younger and older children in the study group. In the control group, nonsignificant changes occurred in the attitude of children in this regard. Following the implementation of oral health education programme, all the children in the study group had the attitude that consumption of sugar and sweets should be controlled. This change was found to be nonsignificant in the younger age group ($P > 0.05$). In the older age group, this change was found to be significant ($P < 0.05$).

INTERGROUP ANALYSIS (STUDY VS CONTROL) OF MEAN PLAQUE SCORES

The *t*-test results showed that during baseline examination the mean plaque scores for the study group were not significantly different from the control group for both the age groups, i.e., the groups were matched in this regard. Analysis of the mean plaque scores obtained at baseline and follow-up revealed the follow-up scores to be significantly lower ($P < 0.001$) for the study group. No significant difference was seen in the mean plaque scores at baseline and follow-up examination in the control group ($P > 0.05$).

The mean plaque scores for the maxillary arch on being subjected to *t*-test were found to be significantly lower ($P < 0.01$) in the study group when compared to control group for both the age groups. For the mandibular arch and for the total mouth scores, the mean plaque scores were significantly lower ($P < 0.001$) for both the age groups, when compared to the control group [Table 2].

INTERGROUP ANALYSIS (STUDY VS CONTROL) OF MEAN GINGIVAL SCORES

The differences between the mean gingival scores for the study and the control group were found to be nonsignificant at baseline. Analysis of the mean gingival scores obtained at baseline and follow-up revealed that the follow-up scores were significantly lower ($P < 0.001$) for the study group. In the control group, nonsignificant changes occurred in the mean gingival scores at follow-up.

On being subjected to *t*-test, the mean gingival scores were found to be significantly lower in the study group compared to the control group for both the age groups [Table 3].

Table 2: Intergroup comparison of mean plaque index scores at follow-up

Arch	Age group in years	Study group Mean±SD	Control group Mean±SD	t	P
Maxillary arch	6-8	1.39±0.33	1.53±0.37	-2.87	<0.01
	9-12	1.42±0.33	1.53±0.35	-2.71	<0.01
	Total	1.41±0.33	1.53±0.36	-3.85	<0.001
Mandibular arch	6-8	1.45±0.37	1.68±0.43	-4.18	<0.001
	9-12	1.50±0.37	1.73±0.42	-4.99	<0.001
	Total	1.48±0.37	1.71±0.42	-6.53	<0.001
Total mouth	6-8	1.42±0.35	1.60±0.41	-3.45	<0.001
	9-12	1.46±0.35	1.63±0.40	-3.90	<0.001
	Total	1.44±0.35	1.62±0.40	-5.40	<0.001

Table 3: Intergroup comparison of mean gingival index scores at follow-up

Arch	Age group in years	Study group Mean±SD	Control group Mean±SD	t	P
Maxillary arch	6-8	0.70±0.68	1.14±0.70	-4.44	<0.001
	9-12	0.89±0.73	1.24±0.69	-3.96	<0.001
	Total	0.81±0.71	1.20±0.69	-5.92	<0.001
Mandibular arch	6-8	0.74±0.70	1.20±0.73	-4.50	<0.001
	9-12	0.94±0.76	1.29±0.71	-3.81	<0.001
	Total	0.86±0.74	1.26±0.72	-5.82	<0.001
Total mouth	6-8	0.72±0.69	1.17±0.71	-4.48	<0.001
	9-12	0.91±0.74	1.27±0.70	-4.02	<0.001
	Total	0.83±0.73	1.23±0.70	-5.91	<0.001

PERCENTAGE CARIES REDUCTION DFT AND DFS

The caries prevalence in the deciduous dentition was found to be 88.38% in the younger children (6–8 year old) and 78.29% in the older children (9–12 year old) of the study group. In the control group, 83.31% of the younger children and 90.77% of the older children were affected with caries. In the younger children of the study group, the mean dft and dfs values were 4.501 ± 3.489 and 9.275 ± 8.669 , respectively. In the older children, the mean dft and dfs values were 2.639 ± 2.426 and 5.544 ± 5.921 , respectively. In the control group, the mean dft and dfs were 4.732 ± 3.821 and 9.589 ± 8.767 for the younger children and 3.231 ± 2.403 and 7.200 ± 6.298 for the older children, respectively.

At follow-up, the mean dft and dfs for the younger children in the study group was 4.486 ± 3.472 and 9.385 ± 8.726 , respectively, while in the older children the mean dft and dfs was 2.633 ± 2.36 and 5.612 ± 6.049 , respectively. In the control group, the younger children had mean dft and dfs values of 5.553 ± 4.344 and 11.41 ± 9.714 , respectively. The corresponding values of dft and dfs at follow-up for the older children were 3.338 ± 2.477 and 7.585 ± 6.597 , respectively.

The dft values in both the age groups of the study group at the follow-up examination were found to decrease as compared to the baseline values of the respective groups. The negative increments recorded were -0.015 ± 0.253 and -0.006 ± 0.109 for the younger and older children, respectively. In the control group, the dft in both the age groups increased from the baseline values showing an increment of 0.821 ± 2.739 and 0.108 ± 1.669 in the younger and older children, respectively. Intercomparison between the 6–8-year-old children of the study and control group revealed that the increments in dft and dfs recorded for the control group children were significantly higher ($P < 0.001$). The percentage caries reduction in terms of dft was 101.85% and 93.96% in terms of dfs for the younger children of the study group. In the older children, intercomparison between the study and control group revealed that the difference in the increments in dft and dfs recorded for the children of the two groups were not significantly different ($P > 0.05$). The percentage reduction in terms of dft was 105.48% and 82.32% in terms of dfs for the 9–12-year-old children of the study group.

PERCENTAGE CARIES REDUCTION DMFT AND DMFS

The prevalence of caries in the permanent dentition was 39.61% in the younger children and 64.15% in the older children of the study group. In the control group, 30.43% and 65.38% of the younger and older children, respectively, had one or more DMF teeth. In the study group, the mean DMFT and DMFS was 0.946 ± 1.305 and 1.292 ± 1.913 for the younger children and 2.101 ± 2.262 and 3.017 ± 3.620 for the older children, respectively. In the control group, the younger children had mean DMFT and DMFS values of 0.630 ± 1.180 and 0.696 ± 1.314 . The mean DMFT and DMFS values in the older age group were 2.028 and 3.038 ± 2.934 , respectively. At follow-up, the DMFT value was found to decrease for both the younger and older children in the study group. The mean DMFT value in both the younger and older children of the study group at the follow-up examination was found to decrease as compared to baseline of the respective groups. The negative increments recorded were -0.004 ± 0.062 and -0.002 ± 0.046 for the younger and older children, respectively. In the control group, the DMFT in both the age groups increased from the baseline value showing an increment of 0.109 ± 0.598 and 0.102 ± 1.374 for the younger and older children, respectively. The mean DMFS values increased from the baseline value of 3.017 ± 3.620 to 3.024 ± 3.626 for the older children of the study group, showing an increment of 0.006 ± 0.104 . No increment was recorded in terms

of DMFS in the younger children of the study. In the control group, the mean DMFS values increased from the baseline values showing an increment of 0.217 ± 0.832 for the younger children and 0.270 ± 0.105 for the older children. Intercomparison between the 6–8-year-old children of the study and control group revealed that the increment in DMFT was significantly higher ($P < 0.01$) for the control group. The mean increment in DMFS was also significantly higher ($P < 0.001$). In the older age group, however, the difference in the increments recorded in DMFT for the study and control group was not statistically significant ($P > 0.05$). However, the mean increment in DMFS for the control group was significantly higher ($P < 0.001$) when compared with the DMFS increment recorded for the older children of the study group. The percentage reduction in DMFT in the study group was 103.50% for the younger children and 102.05% for the older children. The percentage reduction in DMFS was 100% for the 6–8-year-old children and 97.59% for the older children, respectively.

DISCUSSION

Over the past 25 years, interest in health promotion and disease prevention has increased significantly. Prevention should be considered as the approach of choice as it is both efficient and economical. The existing dental health services in India should be restructured to embrace the philosophy of prevention. This would reduce the need for corrective care and utilize less manpower and material.^[19,20]

Dental health education is an important and integral part of prevention and health promotion. It is a process that informs, motivates, and helps persons to adopt and maintain health practices and life styles, advocates environmental changes as needed to facilitate this goal, and conducts professional training and research to the same end. The primary objective of dental health education is to motivate individuals to seek the goal of disease prevention and tooth conservation and to have them assume responsibility for their own oral health maintenance.^[21]

Keeping these objectives in mind, the present study was an attempt at implementing a Primary Preventive School Dental Health Education Programme in randomly selected Mysore City higher primary schools and was aimed at assessing the KAP towards oral health of Mysore City primary school children before and after the implementation of the Primary Preventive School Dental Health Education Programme. It also evaluated the effect of the programme on the existing status of caries experience, oral hygiene and gingival health of primary school children.

Children in the age group of 6–12 years were selected because of the high prevalence of dental caries in this age group, which has made dental health education for them a high priority for the dental profession.^[22-24] Of special importance are the 6 and 12 year ages. The World Health Organisation (WHO) has recommended these index ages. Though 5 years of age has been recommended as the index age for primary teeth, in countries where school entry is at a later age i.e., 6 or 7 years, these ages can be used according to the WHO.^[25]

In the present study, schools were selected as the setting to provide dental health education to children, as the school system has emerged as the most practical and logical setting to implement dental health education programmes. Schools possess several inherent qualities that make them suitable for the presentation of oral health information.^[26-33]

For the present study, Mysore City was divided into four zones viz., North South, East, and West and the schools into the categories of Government, Aided, and Unaided. Children of higher income strata of society usually attend unaided schools while Government and Aided schools are attended by children of low-income strata of society. One school per category was selected in each zone using simple random sampling procedure. The selection of schools belonging to the different categories of Government, Aided and Unaided provided an opportunity to include children from both the higher and lower income strata of society.

Very few studies have been carried out to evaluate the efficacy and feasibility of using schoolteachers for imparting dental health education to schoolchildren in India.^[9-14] The results of the present study are comparable with studies that also showed that the dental health education programmes implemented through schoolteachers motivated and helped the children to adopt and maintain health practices and life styles.

In the present study, at follow-up, the increase in the percentage of children using brush as the measure of oral hygiene in the study group was noted because the practice of finger cleaning became nonexistent following the dental health education programme. The knowledge of brushing being the best method to clean the teeth was gained by all the children in the study group. Positive attitude towards brushing was shown by all the children in both the Study and the control groups. The practice of brushing was found to coincide with the correct knowledge and the positive attitude towards brushing.

At baseline, the most prevalent frequency of brushing was once daily in both the study and the control groups. At follow-up, the most prevalent frequency in the study

group was twice daily. The baseline results of the present study revealed a gap between knowledge and practice as regards to frequency of brushing. This gap was found to reduce in the study group while it remained unchanged in the control group following the education programme. These results suggest that the oral health programme was successful in educating the children as regards the best oral hygiene measure and in motivating the children to start using brush. It also was successful in motivating the children to practice twice daily frequency of brushing.

To be kept in mind is the fact that free brushes were distributed among the children during the programme, and that this might have helped the children to overcome the reasons viz. cost factor, due to which they were using substitutes.

Baseline assessment revealed that the percentage of children in the study group naturally practicing less than or equal to 3 times sugar exposures per day increased significantly at follow-up. The percentage of children practicing 4 and 5 times a day sugar exposure decreased consequently.

The percentage of children in the study group having the correct knowledge about the aetiology of dental caries and knowledge about plaque and positive attitude towards treatment for dental caries increased. None of the children at baseline had any knowledge regarding fluoride. At follow-up, an increase was observed in the percentage of children in the study group having the correct knowledge in this regard which was found to be statistically significant.

The improvement in KAP following oral health education has also been reported by other studies.^[9-11]

Following the oral health education programme, the children in the study group improved their brushing efficiency. Consequently, the oral hygiene improved leading to enhanced gingival health. Majority of studies with short follow-up periods showed significant improvements in plaque levels. The evidence from the studies suggested that simple instruction in oral hygiene could alter peoples' behaviour in the short term.^[10-14,22]

With regard to the dental caries status at follow up, negative increments were recorded in dft and dfs of the study group. Though small, these negative increments gain significance in view of the fact that in the control group the dft and dfs in both the age group increased from the baseline values. The mean DMFT value in both the younger and older children of the study group had decreased when compared to baseline of the respective groups. These negative increments are

important in view of the fact that in the control group, the DMFT in both the age groups increased from the baseline value. In the present study, the factor which may have led to the caries reduction could be the use of fluoridated toothpaste with improved tooth brushing efficiency being a contributing factor.

LIMITATIONS

KAP towards oral health was assessed through personal interviews conducted by the investigator. This method of data collection has certain limitations. With respect to dental knowledge, oral hygiene habits and consumption of healthy foods, over reporting has to be assumed whereas under reporting has to be considered as regards the consumption of sugar, sweets, and sugary drinks. Overall, the interview method gives an overview of the KAP at the population level. The education programme of the present study did not include parents; it is believed the parental involvement in future programmes aimed at establishing or altering dental health behaviour would positively influence the outcome of the programme. Long-term follow-up of the programme needs to be conducted to evaluate the long-term impact of the programme on oral health practices. The effects of culture and socioeconomic status on the oral health knowledge and practices should also be investigated in future.

CONCLUSION

This programme aimed at making children aware and responsible for their own dental health and at enabling the children to develop appropriate skills and practices to prevent dental disease. Instillation of positive values and attitudes about dental health in the children was also attempted. The results of the present study support implementation of similar programmes in schools and the contention that schoolteachers are suitable personnel for imparting dental health education to school children on a regular basis. In India and other developing countries, with limited manpower and resources, this skilled and competent workforce offers a viable and economical alternative which has till date been underutilized. In conclusion, it is recommended that age appropriate dental health education material for imparting oral health education to children should be integrated into the academic curriculum in schools and dental health education in schools should be made compulsory.

FINANCIAL SUPPORT AND SPONSORSHIP

Nil.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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