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A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge on Hand Washing among School Children at Selected School

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Abstract

The study aimed to evaluate the effectiveness of structured teaching programmes on knowledge regarding hand washing techniques and their importance among school-going children at selected schools Namakkal district. electronic hand hygiene systems have emerged to not only record compliance but also to promote it among HCWs. Modifications of the hand hygiene procedure have been proposed targeting both time and technique of hand rub application. Reducing rub time from 30 to 15 s and simplifying the technique to consist of three rather than six steps encourages results in terms of microbiological efficacy and compliance. Methods. A community-based comparative cross-sectional study was conducted in Namakkal, District. The study population consisted of schoolgoers who studying in primary school. The instrument used in this study was a self-structured knowledge questionnaire. The collected data was organized tabulated, summarized and analyzed by using descriptive and inferential statistics. The data were analyzed by using the Chi-square test and were calculated to analyze the differences in pre-test and post-test scores on the level of knowledge before and after the structured teaching program. The statistical paired 't' test indicates that the mean effectiveness was found to be significant at p>0.05 revealing that the administration of a structured teaching programme was effective in improving knowledge regarding hands-washing techniques among school going children. Conclusion. There was significant improvement in post-test levels of knowledge when compared to pretest levels. The structured teaching programmes are effective in improving the knowledge about hand washing.

Keywords: *Hand Hygiene, Infection Prevention, Nursing, School Children.*

Introduction

In this part, state the purpose of the study. The following should be stated clearly:

Human hands are a major means of transferring illnesses, particularly diarrhoea and respiratory diseases, and infectious diseases continue to be the greatest cause of morbidity and death in children globally [1]. Many infections begin when disease-causing germs contaminate the hands such as water and food-borne diseases, contagious diseases, severe acute respiratory syndrome(SARS), H1N1 influenza A, norovirus, cholera, malaria, dysentery, meningitis and shigellosis [2]. infection can occur after using the restroom, coughing or blowing your nose, playing, handling trash, or contacting other contaminated surfaces. Personal hygiene is essential at all stages of life, but good hygiene habits should be established in early childhood [3]. Study by Nagar et al. (2021) revealed that hand hygiene is especially crucial for children since they are more vulnerable to illnesses spread by dirty hands. Hand washing is known to be one of the most effective and least disruptive hygiene-promoting actions and it is a useful means of preventing the spread of numerous infectious illnesses [4]. Hand

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washing is the act of washing one's hands using ordinary or antibacterial soap and water. Nagar et al. (2021) stated that hand washing, particularly before eating, is thought to be one of the initial methods of protecting children, teenagers, and adults against numerous infectious illnesses. Various studies have demonstrated that hand washing is essential in hygiene management to prevent under-five mortality. Although substantial improvements in hand hygiene practices have occurred in recent years, many health care facilities continue to encounter challenges in achieving and maintaining high levels of hand hygiene compliance. Issues of current interest include the optimum dose of alcohol-based handrub (ABHR) that should be applied, the impact of hand size and alcohol-based handrub dry times have on efficacy, and ideal hand hygiene technique. There is a need to determine which additional promotional activities can augment improvements in hand hygiene that are achieved by implementing the multimodal improvement strategy recommended by the World Health Organization. [6]. Hand hygiene is the easiest and best way to prevent infection. Limitations of the study is done with school age. After completion of the study proved that students were gained knowledge. To compare the pre-test and post-test knowledge about hand hygiene and to find out the association between the pre and post-test level. Study found structured teaching programme was effective in school children.

Materials and Methods

Study area and period: In India, Tamil Nadu state primary school going children were selected at Namakkal district government panchayat primary school total 68 students were there in that school in that 60 samples were confirmed. And period of data collection is one month. The study was planned to conduct in Panchayat union primary school at Namakkal district. Study design: A community-based comparative cross-sectional study was conducted to assess the knowledge regarding hand washing techniques and their importance in the Namakkal district. Population: The source population was all primary school children in the selected school in the Namakkal district. The study population school-going children who studying in primary school. The study unit was school children selected from the total students found in the selected school. The instrument used in this was a self-structured knowledge questionnaire to assess the level of knowledge regarding hand washing techniques among school going children at Namakkal, District. Self-structured knowledge questionnaire was used for the data collection. Section I – Selected demographic variables such as Age, Gender, Religion, Income, domicile, Type of family, Number of siblings, previous knowledge, Toilet practice, Nature of drainage system. • Section II - Self structured knowledge questionnaire (MCQ) which consists of 20 questionnaires assessing the level of knowledge. Total score was 20, every correct answer carries one mark (1), and wrong answer carries zero mark (0).

Results

Comparison of mean pre-test and mean post test scores of structured teaching programme in the group. This shows that the difference aspect of effectiveness comparison mean scores of pre-test and post-test. The knowledge of mean pre-test score was 9.03 and mean post test score was 15.85. The obtained test value was 19.21 when compared to table value (1.96) it is high. The statistical paired 't' test indicates that the mean effectiveness found to be significant at $p > 0.05$ revealing that the administration of structured teaching programme was effective in improving knowledge regarding hand washing techniques among school going children. The study was to find out association between level of knowledge school going children and a selected demographic variable such as Age, Sex, Education, Domicile, Occupation,

Income, Type of family, Number of siblings. The group shows that there was no significant association found between pre-test score on the level of knowledge with their demographic variables namely Age 2.43, whereas table value = 2.43, Gender 1.21, whereas table value = 1.21, Religion 9.67 whereas table value = 9.67, Occupation 4.04 whereas table value =4.04, Family income 0.925 whereas table = 0.925, Domicile 0.541 whereas table value= 0.541, Type of family 3.321 whereas table value = 3.321, Number of siblings 0.976 whereas table value =0.976, Previous source of knowledge 0.259 whereas table value = 0.259, Toilet practice 0.965 whereas table value = 0.965, Nature of drainage system 1.11, whereas table value1.1 Distribution of school going children to level of knowledge regarding handwashing techniques and its management in pre-test frequency and percentage distribution of school going children according to level.

Discussion

The aim of the study was evaluated the effectiveness of structured teaching program on knowledge regarding hand washing techniques and its important among school going children's at selected school Namakkal district. Baseline characteristics of the group Regarding Age majority 22 (37%) them were in the group of 8 to 10 years, 21 (35%) them were in more than 10 years, 17 (28%) them were in 6 to 8 years(figure 1). Regarding Gender majority 36 (60%) them were in males, 24 (40%) them were in females(figure 2). Regarding Religion majority 49 (82%) them were Hindu, 6 (10%) them were Christian, 5 (8%) them were Muslim(figure 3). Regarding Occupation majority 26 (43%) them were coolie, 21 (35%) them were self-employment, 13 (22%) them were government employee (figure 4). Regarding Domicile majority 38 (63%) them were rural, 22 (37%) them were urban(figure 5). Regarding Type of family majority 36 (60%) them were nuclear family, 13 (22%) them were joint family, 11 (18%) them were blended family(figure 6). Regarding previous source of knowledge 36 (60%) them were teacher, 15 (25%) them were mass media(figure 7). Regarding Toilet practice 49 (82%) them were closed toilet, 11 (18%) them were open toilet(figure 8). The first objectives of the study were to find out to assess the level of knowledge regarding hand washing techniques among school going children's before and after structure teaching program. The frequency and percentage distribution of pre-test and post test score on the level of knowledge regarding hand washing techniques among school going children's before and after structure teaching programme. It reveals that majority 48 (80%) them were had inadequate knowledge, 12 (20%) them were had moderate knowledge. none of them were have adequate knowledge in the post test. The second objectives of the study were to implement and evaluate the effectiveness of structured teaching programme regarding hand washing techniques among school going children's. The effectiveness of structured teaching programme on improving hand washing techniques among school going children's. Children was tested by using parried 't' test and was calculated to analyse the differences in pre-test and post test scores on the level of knowledge before and after structured teaching programme on hand washing techniques among school going children's. Comparison of mean pre-test and mean post test scores of structured teaching programme in the group. This shows that the difference aspect of effectiveness comparison mean scores of pre-test and post-test. The knowledge of mean pre-test score was 9.03 and mean post test score was 15.85. The obtained test value was 19.21 when compared to table value (1.96) it is high. The statistical paired 't' test indicates that the mean effectiveness found to be significant at $p > 0.05$ revealing that the administration of structured teaching programme was effective

in improving knowledge regarding hand washing techniques among school going children. The third objectives of the study were to find out association between level of knowledge school going children and a selected demographic variables Age, Sex, Education, Domicile, Occupation, Income, Type of family, Number of siblings. The group shows that there was no significant association found between pre-test score on the level of knowledge with their demographic variables namely Age Chi square value = 2.43, whereas table value = 5.991, chi-square value = Gender Chi square value = 1.21, whereas table value = 3.841, Religion Chi square value = 9.67 whereas table value = 5.991, Occupation Chi square value = 4.04 whereas table value = 5.991, Family income Chi square value= 0.925 whereas table = 5.991, Domicile Chi square value = 0.541 whereas table value= 3.841, Type of family Chi square value = 3.321 whereas table value = 5.991, Number of siblings Chi square value = 0.976 whereas table value = 5.991, Previous source of knowledge Chi square value = 0.259 whereas table value = 5.991, Toilet practice Chi square value = 0.965 whereas table value = 3.841, Nature of drainage system Chi square value = 1.11, whereas table value 3.841

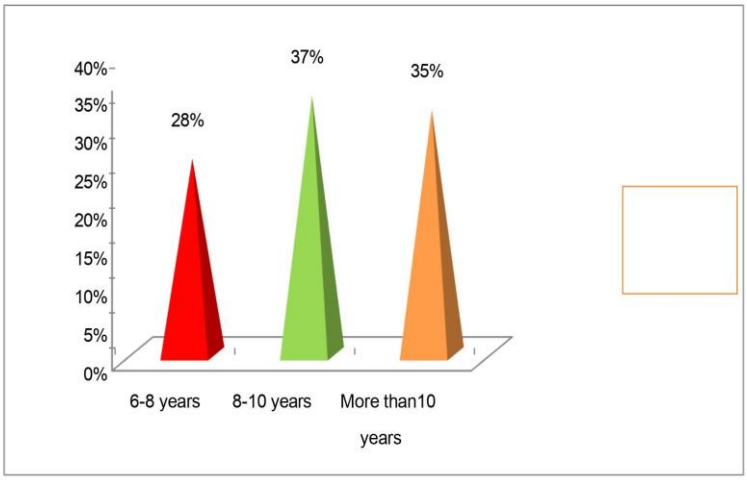

Figure 1. Distribution of School Going Children According to Age

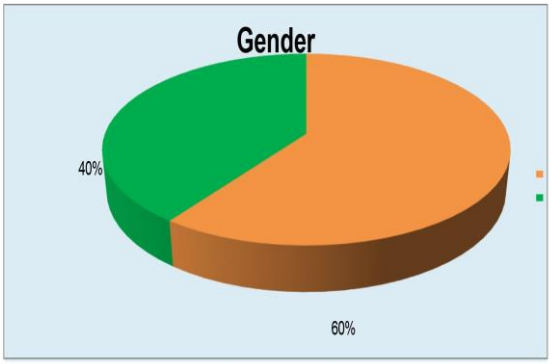

Figure 2. Shows that Distribution of School Going Children According to Gender

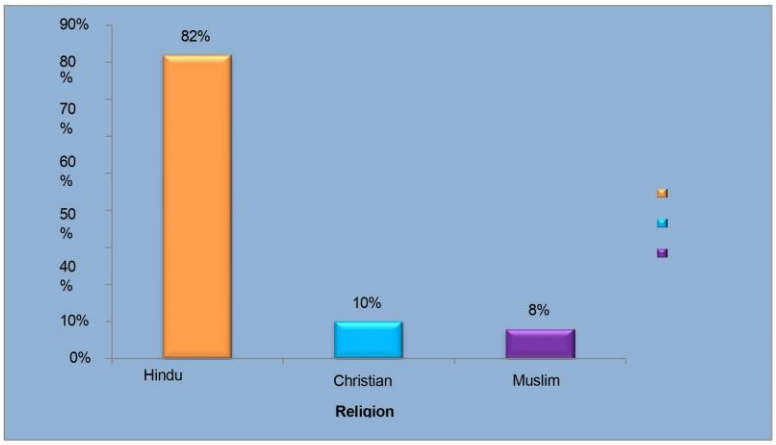

Figure 3. Shows that Distribution of School Going Children According to Religion

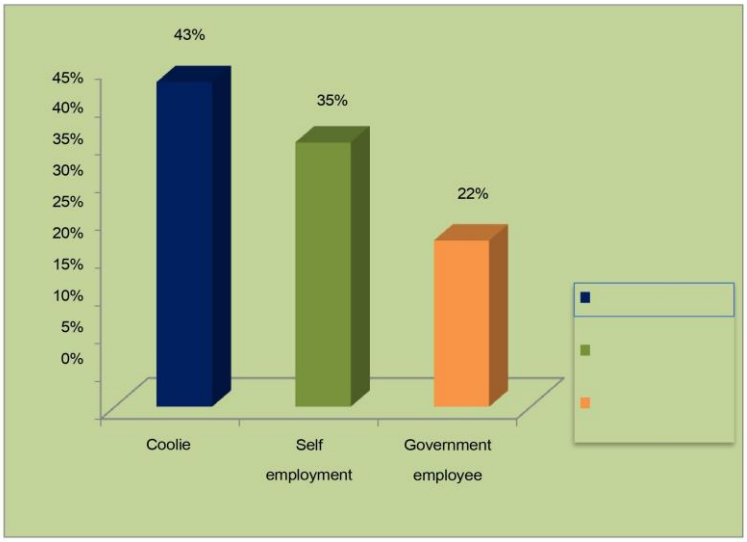

Figure 4. shows that distribution of school going children according to occupation

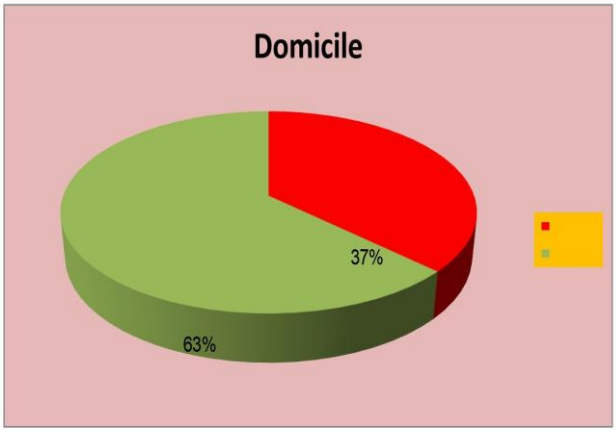

Figure 5. Shows that Distribution of School Going Children According to Domicile

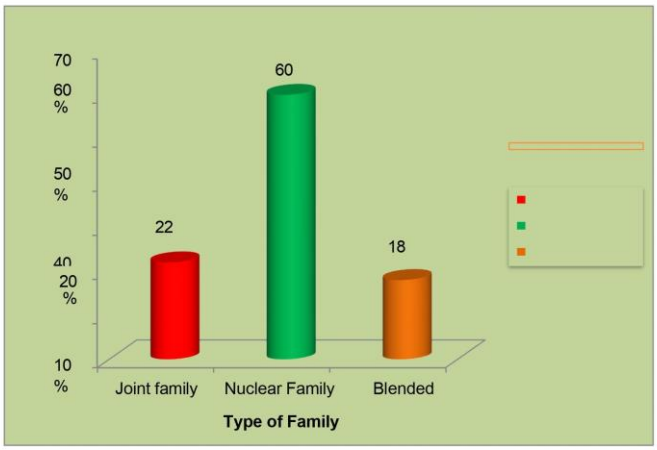

Figure 6. Shows that Distribution of School Going Children According to Type of Family

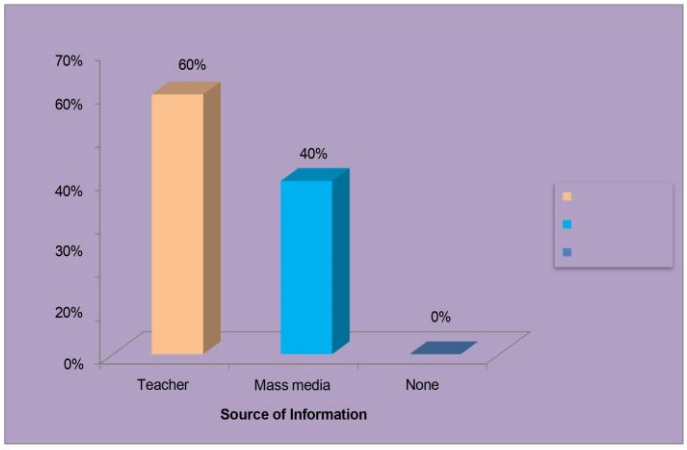

Figure 7. shows that distribution of school going children according to source of information

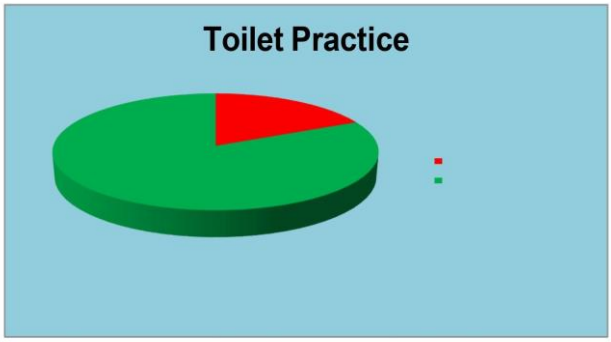

Figure 8. Shows that Distribution of School Going Children According to Toilet Practice

Conclusion

The study was conducted to assess the effectiveness of structured teaching programme regarding hand washing techniques among school going children's. There was significant improvement in post-test level of knowledge when compared to pre-test level of knowledge regarding hand washing techniques among school regarding hand washing techniques among school going children's. The comparison between pre-test and post-test was found to be significant at p,0.05 so the structured teaching programme is

effective in improving knowledge regarding hand washing techniques among school going children's. There was no significant association exist between the pre-test and post-test level of knowledge of school going children's and their selected demographic variables such as Age, Sex, Education, Domicile, Occupation, Income, Type of family, Number of siblings. The structured teaching programme was found to be effective to improve the knowledge regarding hand washing techniques among school going children's. The findings of the study provided evidence that the administration of structured teaching programme was effective in improving knowledge.

Conflict of Interest

There is no conflict of interest.

Acknowledgement

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