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EFFECTIVENESS OF STRUCTURED NURSING INTERVENTION ON KNOWLEDGE AND PRACTICE REGARDING TECHNIQUE OF HAND WASHING AMONG 12 TO 14 YEARS OLD CHILDREN IN SELECTED SCHOOLS

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ABSTRACT

Background: it was not until the 1980s the first national hand hygiene guidelines were published by the CDC. And it was not until 1996 that antimicrobial soaps were recommended for hand washing after treating patients with multidrug-resistant pathogens. Hands are the most exposed part of the body to germs; child touch his/her eyes, mouth, nose and the food that making child's hands the riskiest transfer agent of germs more than how much you think it does. Diarrhoea and intestinal infections can occur if hand is not washed properly .Educating the children regarding proper hand washing and adaptation of it in the daily life can reduce absenteeism in children.

Objectives: The researcher aim to assess the knowledge as well as practice regarding technique of hand washing among 12 to 14 years of old children and to assess the effectiveness of structured nursing intervention on knowledge and practice regarding technique of hand washing among 12 to 14 years of old children.

Material &Methods: Quantitative approach with one group pre-test and post-test pre-experimental design was used in the study. 30 samples from Vejagam govt. primary school where recruited as sample, using random sampling technique. Structured questionnaire was used to collect demographic data and knowledge regarding hand washing. A structured checklist was used for assessment of expressed practice Data analysis was done by using descriptive and inferential statistics.

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Result: The collected data were tabulated and analysed by using descriptive and inferential statistics. The mean post-test knowledge score (11.959) was higher than the mean pre-test knowledge score (5.3) and the calculated "t" (9.99374) was greater than tabulated "t" (2.05) which was statistically significant .In the assessment of the expressed practice the pre-test score was 4 and post test score was 10.23 with calculated; value with 10.02 which was statistically significant at 0.05 level. In the Chi square test it has been shown that age as well as the source of information has significant association between pre-test knowledge at 0.05 levels.

Conclusion: It has been found out from the study that 12 to 14 years children are lacking adequate information and practice about hand washing techniques. The structured nursing intervention was found to be effective in improving the knowledge and practice of the 12 to 14 years children regarding hand washing technique.

Keywords: *Structured nursing intervention, techniques of hand washing*

INTRODUCTION

Hand washing is significantly important in children as children are vulnerable to illness since they are very playful and more exposed to dirt, soil and other source of disease causing infections Germs can be transmitted in many ways, including: touching dirty hands through contaminated water and food, through droplets released during a cough or a sneeze from contaminated surfaces and through contact with a sick person's body fluids.

Improper hand washing, it is the second most common cause of child death worldwide To put that in perspective, more children die of diarrhoea each year than the total number of people killed by terrorist attacks worldwide between 2006-13. And yet the 'war on diarrhoea' has a very simple and inexpensive solution: hand washing.

Every individual is potentially at risk of contracting hand-transmitted illnesses, especially the vulnerable population which include pregnant women, children, old people, and those with weakened immune systems . The ideas of the child to child educational and training approach aim : Children learn better by doing, they are active learners, they learn better from each other , children act as partners in promoting health and issues concerning their communities, children influence adults as well as other children e.g. sisters, brothers, siblings and playmates.

HYPOTHESIS

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H_1: The mean post- test knowledge score will be significantly higher than the mean pre-test knowledge score.

H_2: The mean post-test practice score of children regarding hand washing practice will be practice significantly higher than mean pre-test score.

MATERIAL &METHODS

The researchers have adopted one group pre-test and post –test research design to attain the objectives of the study. Out of the entire population using inclusion and exclusion criteria selected 30 children who were between 12-14years .The sample was collected from Vejagam govt. school using random sampling method. The investigator collected the data by approaching the sample individually. Structured questionnaire was used to collect the demographic data, knowledge level and structure checklist to monitor the practice. After pre-test treatment was given in the form of planned teaching program on hand washing. The tool was validated by the experts in that particular field for its feasibility and reliability. The demographic questionnaire consists of the following information such age, standard of education , parents education, parents occupation , order of the child and source of information .The knowledge questionnaire consists of questions related to definition,reasons ,disease gets by following improper hand washing , scope of hand washing ,steps of handwashing and important facts about hand washing. The score was interpreted as 1-7 inadequate knowledge, 8-14 moderate knowledge and 15 and above adequate knowledge. In expert practice check list total score is 14, 1-7 score is considered inadequate and 8-14 score considered adequate .After obtaining formal administrative approval from the concerned authorities and informed consent from the samples the investigator collected the data.

FINDINGS

Frequency and percentage distribution of the sample's demographic data was done in the initial stage. Out of the 30 samples 50% the sample were aged 12 .Almost half of the sample from 6thstandard. More than half of the children's parents are labourer .47 % of the sample has birth order of 2nd in the family and almost same number has gain knowledge about handwasing through technology.

During pre-test assessment of the knowledge the average score was 5.30 with only 17.7% and in post – test it increased to 11.95

Task	Knowledge Scores of Respondents on hand washing	Mean % Gain	Mean Difference

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	Pre Test			Post Test				
	Mean Score	%	SD	Mean Score	%	SD		
Introduction	0.77	2.55	0.430	1.366	4.55	0.556	2	0.596
Definition	0.37	1.2	0.490	1.433	4.77	0.679	3.57	1.063
Reasons	1.57	5.23	0.89	3.66	12.22	0.922	6.99	2.09
Diseases	0.76	2.55	0.77	1.9	6.33	1.296	3.38	1.14
Steps	1.1	3.66	0.80	2.13	7.11	0.937	3.45	1.03
Important facts	0.733	2.44	0.79	1.47	4.88	1.042	2.44	0.737
Total	**5.3**	**17.7**	**2.18**	**11.959**	**39.86**	**5.41**	**21.83**	**6.656**

The difference between the mean pre-test knowledge and post-test knowledge score was analysed using paired‘t’ test

Knowledge	Mean	Mean Difference	SE_M	S.D	Calculated ‘t’ test
Pre test	5.3	6.65	0.627	2.18	9.99374
Post test	11.959			5.41	
(*P < 0.05 , df = 29), tabled t value is 2.05 (one tail)					

This table denotes mean, meandifference,calculated’value, degree of freedom and table‘t’ value at 0.05 level of significance. This indicates that there is a significant difference between pre and post-test knowledge score .Calculated ‘t’ value (9.99) is greater than the table ‘t’ value (2.05) .therefore, H_1 is accepted and the planned nursing intervention was found to be effective in improving the knowledge level.

Pre Test and Post Test expressed Practice Scores of Samples on hand washing.

Expressed Practice	Mean	Mean Difference	SE_M	S.D	Calculated ‘t’ test
Pre test	4	6.233	0.236	0.947	10.026
Post test	10.233			1.223	
(*P < 0.05 , df = 29), tabled t value is 2.05 (one tail)					

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The table shows that the calculated' value is 10.026 and which is greater than table't' value 2.05 at <0.05 level of significance . Hence the H_2 hypothesis is accepted and it showed that teaching programme is effective in improving expressed practice

The investigator also found the association between pre-test score with selected demographic variables of the sample. The obtained χ^2 value: 24.62 of age of the sample is greater than the table't' value and the source of information χ2value is 15.75. Both the values are greater than the table value at 0.05 level of significance with degree of freedom 6. Therefore the obtained χ^2 value is found to be significant. It also concluded that there is no significant association between other demographic variables.

DISCUSSION

The Same result has been shown by **Patel, H. D. (2014),** a pre experimental study that the significant findings of the study were the subject gained significantly higher knowledge and practice score regarding hand washing after planned teaching programme.

Hence it was significant that the structured nursing intervention on hand washing was effective in increasing knowledge and expressed practice of children who are 12 to 14 years of knowledge.

CONCLUSION

The research study helps to identify the knowledge deficit and improper hand washing skills followed by the children of 12 to 14 years in the community .Unawareness about the importance can leads to the occurrence of many communicable disease .Though they can be timely managed the rate of mortality due to this disease is high . Proper education regarding hand washing can prevent the complications. The findings in this study indicate that the administration of the structure nursing intervention was effective in enhancing the knowledge and practice of the sample and ultimately increasing the community health.

ETHICAL CLEARENCE

The study was conducted after obtaining written consent from the participants and formal approval from the institutional ethical committee

CONFLICT OF INTEREST

The author declares that there is no conflict of interest to disclose

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