



Role play on personal hygiene- A child to child approach : Effectiveness among pre-school children, Bhubaneswar, Odisha

Abstract:

Introduction: The health of the children has been considered as the vital importance to all societies because the children are the basic resources for the future of mankind. Majority of child health problems are preventable.

Objectives: The objectives of the study were to develop and administer role play on personal hygiene among primary school children and to evaluate the effectiveness of role play in regard to knowledge.

Methodology: The investigator used quasi-experimental research design. Simple random sampling technique was used to select sample. Data was collected through knowledge questionnaire elicited by interview among 100 primary school children (6-10 years) in selected primary school of Bhubaneswar. The data was analyzed by using descriptive and inferential statistics.

Results: Result showed that there is a significant difference between pre-test and post-test knowledge of school children regarding personal hygiene as it was evident that the obtained 't' value 14.863 was greater than the table value at 0.05 level of significance. Chi-square test proved that there was a significant association between post test knowledge score among children when compared to age, gender, father's occupation, mother's education, mother's occupation, no. of siblings having, type of family and family income of children at 5% level of significance.

Conclusion: Hence role play was found effective as child to child approach among primary school children.

Key Words: Primary school children, personal hygiene, child to child approach, role play, Bhubaneswar, Odisha.

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Introduction

The ancient Greek people spent many hours in the bathroom using fragrance and make-up in an effort to beautify themselves and be presentable to others. Everybody has their own habits and standards that they have been taught or learned from others. Personal hygiene may be described as the principle of maintaining the cleanliness of the body. Children should be taught the importance of hygiene as early as possible. Hence

care given to an elderly child can in turn, teach his/her younger siblings regarding personal hygiene like dental care, eye care, hand & skin care. The health of the children has been considered as paramount to all the societies because the children are the most fundamental resources for the future of mankind. Child health depends upon prevention and majority of child health problems are preventable. The modern approach of child health care emphasizes on "Preventive care rather than curative care". Most of the childhood diseases can be prevented by maintaining

good personal hygiene. The Permanent teeth erupt during the school age years. Good dental hygiene and regular attention to dental caries are vital parts of health supervise during this period. Correct brushing techniques should be taught (or) reinforced and the role that fermentable carbohydrates play in production of dental caries. It is important to be alert to possible malocclusion problems that may result from irregular eruption of permanent teeth and that may impair function. Regular dental supervision is required, children should be taught to carry out their own dental care with the supervision and guidance.¹

Hairs, (like the nails) is an outgrowth of the epidermis. Each hair grows from a hair follicle extending up to the dermis and at the end of the hair follicle is the roof growing cell nourished by blood vessels. Hairs after reflecting the general condition of the body as seen in case of children pediculosis, dandruff hairs should be washed with shampoo and oil should be applied thereafter.²

Hygiene is an important issue in the personnel department, i.e. in taking care of oneself both physically and emotionally. People often have infections because they do not take good care of themselves physically, such condition can also produce emotional difficulties as well. Good hygiene includes, the practice of regularly and thoroughly washing one's hands, body, cleaning one's hair, brushing the teeth and caring for gums. These grooming habits will reduce vulnerability to harmful bacteria that reside on the body. While some bacteria are harmless and even beneficial to the body, the accumulation of bacteria can endanger a person's health. Healthful habits regarding personal hygiene, clean surrounding, nutritious diet, exercise, rest and recreation if formed at an early stage will remain with the person throughout the life and will help to develop healthy citizen in the full and positive sense of the term. So, the school is the best place for giving health education as a proper dedicated subject.³

The child to child approach is a newly introduced concept, which is coming up in the domain of healthcare. The aim of this approach is children will be more responsible for their health as

well as their community. The child-to child approach refers to a style of child empowerment where children are active participants in their own development as well as development of others. This approach is based on the belief that children, from whatever circumstances, are capable of helping themselves. The approach assumes that children will gain more from their development, if they are active participants in the process rather than passive participants. Child to child approach gives a new look to health education in school. Instead of teaching children health facts about their own health, it encourages them to take health action for themselves and others. This links school learning with home and community needs, and helps children learn to grow up into responsible adults. Ideas:

1. Children learn better by doing
2. Children learn better from each other
3. Children as partners in promoting health and issues of concern to their communities.
4. Children doing something better and keeping it going
5. Children influence adults as well as other children
Eg. Sisters.⁴

The school going children represent 25% of the total population. According to WHO globally 20,03,35,280 teeth are either decayed or are missing due to dental caries. In the National survey, it is observed that almost 10% of low-income children had a need for dental care. More than 30% reported not consulting the dentist in the preceding years. Between 11% to 72% of poor children have been found to have early childhood caries, only 19% of the children received preventive dental care. This is for one age group and the 12-year-old had presented in the database in February, 2004 WHO report. Around 1.7 million deaths in 2004 occurred due to diarrheal diseases and 90% of these occurred among children. Almost 88% of diarrheal diseases are attributed to in-adequate hygiene.⁵

There is tenfold difference in prevalence between the wealthiest countries of the World and the poorest, ranging from as low as 0.1 / 1000 children aged 0-15 years in the wealthiest countries to

1.1/1000. 30% of India's blind lose their eyes and before the age of 20 years and many of them are under five.⁶

India adopted the National policy for children in August 1974 and recognized children as the "Nations supremely important asset". It was David Morley and his colleagues at the Institute of child health and education, university of London who identified the un-tapped resource, "The child power" for spreading health messages prof. Hugh Hawer Stalis that "Children have a vitally important part to play in the health of community, nor merely by being 'kept healthy' by adult but in passing an health messages to younger brothers and sisters and by jointly co-operating to become a positive force of health child to child program is based on the concept that children in School and family members need to be considered as partners in spreading health messages as well as benefiting from them.

The group selected may involve children belonging to formal because child spends most of his time at school one of the area focused in school health nursing is preventive health measures. This includes physical aspects and imparting health education regarding personal hygiene. The activities are made interesting and lively by using role play modality to spread the message least that is expected from these children is to spread health message to their younger once then ultimately the message is spread.⁷

Prior to the intervention average of 50% of study group students knew that eating contaminated food (51.85%), drinking contaminated water (46.20%) and dust (53%) covers diarrhoea. After the intervention more than 90% of study group students came to know about these causes. As far as practice are concerned 100% of study group students started washing their hands with soap and water after attending toilet with soap and water after attending toilet and washing vegetable and fruits before eating. Surprisingly in the control group this practice decreased from 81.48% to 70.9% & 66.66% to 57.4%. After child to child program 100% of study group children came to

know about diarrhoea and also 75.90% of the control group children came to know about it. The child to child program had made significant improvement.⁸

Worldwide, the child to child approach is being used in more than 90 countries. A number of reports studying the effectiveness of the child to child approach exist and generally give an impression of successful implementation of it.

From the above, I felt that child to child program has now become an international program and the concept is now extended and is called as the child to community program. In this era, children are being utilized by the commercial advertising agency for marketing products. Besides the commercial industries, we the health providers can utilize this important resource for the much better purpose. Thus, when the child becomes a teacher for spreading health messages, general development of their younger siblings happen and also their community at large is benefited.⁹

Methodology

The present study aims at describing the effectiveness of child to child approach through role plays on knowledge regarding personal hygiene among primary school children at selected schools of Bhubaneswar. The research design selected for the present study is Quasi Experimental, one shot pre and post test research design. The study was conducted on primary school children in 3 schools, from which 100 students were taken from 1st, 2nd, 3rd, 4th and 5th standards, by simple random sampling technique in which coin flip method was adapted to select the students.

A self- prepared semi structured questionnaire has been used to collect information regarding socio demographic characteristics and information regarding knowledge of personal hygiene.

Data collection was completed in 3 phases. In first phase, Role Play Educational Package was prepared with extensive review of books and literature. This also includes introduction to oral

hygiene, nail hygiene, skin hygiene, hair hygiene, eye, ear and nose hygiene. Structured Questionnaire includes 30 items to assess the knowledge of primary school children. The questionnaire was divided into two parts, first one was socio demographic information and second one was questions related to knowledge regarding personal hygiene. Each question has 2 or 4 alternative responses. A score value of 1 was allotted to each correct response and 0 was given for wrong responses. Total score ranges from 0 to 30. The scoring was then divided as:

- 0-25%: poor knowledge
- 26-50%: average knowledge
- 50-75%: good knowledge
- 75-100%: excellent knowledge

The second phase was pre testing and intervention phase pre test was done on 28th February 2018, with the structured knowledge questionnaire to assess the level of knowledge on personal hygiene. Consent was taken with clear instructions and objectives of the role play intervention. It took 20-25 min for the completion of the questionnaire. Role play intervention was provided after pre testing on the same day. The role play package included information on different aspects of oral hygiene, skin hygiene, hair hygiene, nail hygiene, eye, ear and nose hygiene. Complications associated with poor personal hygiene. As per lesson plan intervention took almost 60 min. All the queries raised by the respondents were cleared. In the last phase post-test was done after 7 days of intervention i.e. on 03rd march 2018, with the same questionnaire which was used for pre test. Further feedback on the intervention was taken from the participants orally. The data obtained from the study was compiled, coded and analyzed using "Statistical Package for Social Sciences (SPSS)" version 20. Data was presented by using descriptive statistics i.e. percentage, frequency, median and inter-quartile range and by inferential statistics.

Result

Table 1: Percentage-wise distribution of samples based on pre and post-test level of knowledge score regarding personal hygiene.

n=100

Knowledge Level	Pretest		Posttest	
	f	%	f	%
Poor	4	4	3	3
Average	67	67	13	13
Good	28	28	58	58
Excellent	1	1	26	26
Total	100	100	100	100

Table 1 states that, percentage wise distribution of knowledge score among samples for pre-test showed that 4% children had poor knowledge, 67% children had the average knowledge, 28% children had good knowledge and only 1% children had excellent knowledge. In the post-test showed that poor knowledge reduced to 3%, average knowledge reduced to 13% whereas good knowledge increased to 58% and excellent knowledge increased to 26%.

Hence, I found that there is a great difference of knowledge score in post-test than pre-test which revealed that there is adequate gain of knowledge after child to child approach through role play.

Figure 1: Comparison of Percentage wise distribution pre and post-test knowledge score

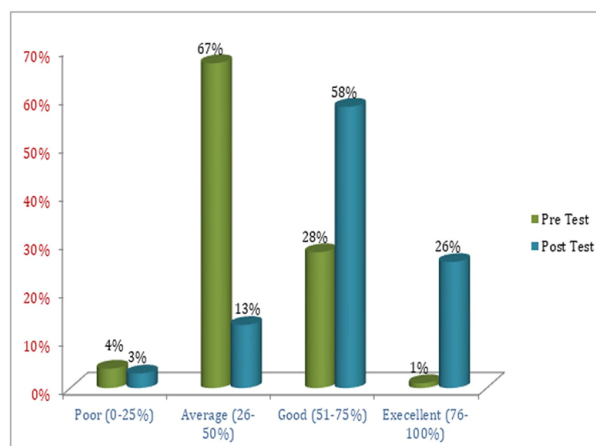


Figure no - 1

Figure 1 showed the comparison of the percentage wise distribution of sample based on the level of pre and post-test level of knowledge score on personal hygiene among children.

Table 2: Effectiveness of role play intervention regarding knowledge of personal hygiene. n=100

Knowledge of students	Mean	Range	Sd	Mean percentage	Paired 't' value
Pre-test	13.61	6-30	3.572	45.36%	14.863
Post-test	19.73	3-30	4.865	65.76%	

Table 2 showed that the overall maximum possible score for questionnaires was 30. The mean pre-test knowledge score of questionnaires was 13.61 and a standard deviation of 3.572 and it was found to be increased to mean post-test knowledge score of 19.73 and the standard deviation is 4.865.

The statistical significance was assessed by comparing the mean pre-test and post-test knowledge score on primary school children. The paired 't' value was found to be highly significant than the table value at $p < 0.05$ level of significance i.e. the calculated 't' value is 14.863. Hence the hypothesis H1 was accepted and null hypothesis H0 was not accepted, which means that child to child approach through role play on personal hygiene found to be highly effective.

Table 3: Association between the post-test level of knowledge score on personal hygiene among samples and their selected demographic variables n=100

T: No	Demographic Variables	Total frequency	%	Level of knowledge				Chi Square (χ^2)	df	P<0.05 level
				Poor	Average	Good	Excellent			
1	Age							25.26	9	16.919*
	(a) 6 Year	10	10%	1	4	3	2			
	(b) 7 Year	15	15%	1	5	9	1			
	(c) 8 Years	25	25%	0	2	13	10			
	(d) 9 Year & above	50	50%	1	2	33	14			
2	Mother's Education							65.99	9	16.919*
	(a) Illiterate	14	14%	1	10	3	0			
	(b) Secondary	32	32%	0	0	28	4			
	(c) Higher Secondary	39	39%	1	3	18	17			
	(d) Graduate & above	15	15%	1	0	9	5			

Table 3: continuing.

T: No	Demographic Variables	Total frequency	%	Level of knowledge				Chi Square (χ^2)	df	P<0.05 level
				Poor	Average	Good	Excellent			
3	Mother's Occupation							19.15	9	16.919*
	(a) House Wife	63	63%	1	10	40	12			
	(b) Daily Labor	14	14%	1	1	10	2			
	(c) Government Employee	18	18%	0	1	5	10			
	(d) Private Employee	7	7%	1	1	3	2			
4	No. Of Siblings Having							27.63	9	16.919*
	(a) Zero	29	29%	3	10	10	6			
	(b) 1	60	60%	0	2	40	18			
	(c) 2	8	8%	0	1	6	1			
	(d) 3 or above	3	3%	0	0	2	1			
5	Types of Family							44.12	9	16.919*
	(a) Nuclear Family	42	42%	0	2	35	5			
	(b) Joint Family	49	49%	0	10	20	19			
	(c) Extended Family	5	5%	1	1	1	2			
	(d) Mixed Family	4	4%	2	0	2	0			
(d) 15001 or above	45	45%	2	3	21	19				

Table 3, showed that significant association between post-test knowledge score among the children while compared to age, mother's education, mother's occupation, no. of siblings having and type of family, at 5% level of significance.

There was no significant association between post-test knowledge scores among children when compared with father's education and type of house regarding personal hygiene.

It was found that in some demographic variables null hypothesis was rejected and the alternative hypothesis was accepted. It is inferred that there was a significant association between post-test knowledge score of children with selected demographic variable.

Discussion

This study was conducted to provide baseline information on knowledge and regarding personal hygiene, which can be used in the development of a plan for community participation towards the control of infectious disease among the children. This study indicated that, the knowledge of the studied population about

personal hygiene increased enormously after the role play. This finding is supported by a study Anambra State, Nigeria where the school-based health education improved the personal hygiene practice of the pupils. There is a need for regular reinforcement to sustain the gains on personal hygiene.¹⁰ In this study, pre-test knowledge score also revealed that 4% had poor knowledge, 67% had average knowledge, 28% had good knowledge and at least 1% had excellent knowledge.

After the role play between the children, the post-test knowledge scores state that children have increased their knowledge, only 3% had poor knowledge, 13% had the average knowledge, 58% had good knowledge and 26% had excellent knowledge whereas a similar study gave statement in two forms like in the pre test, about 63.3% of the samples had inadequate knowledge where as in the post test of the samples (66.7%) had gained adequate knowledge. These findings indicate that the puppet show was effective in enhancing the knowledge of the primary school children regarding personal hygiene.¹¹

This study showed that role play was highly effective by comparing the mean pre-test and post-test knowledge score of primary school children with the table value at $p < 0.05$ level of significance. The finding is supported by a study of effectiveness of STP where post test knowledge mean score of was higher than the pre test knowledge mean score with the t-value of 0.05.¹²

Present study found that there is significance association of role play post test knowledge score of primary school children with their demographic variables like age, no. of siblings having, types of family with 5% level of significance and this finding is supported by similar study which concluded no significance association with planned teaching programme post test knowledge score of primary school children age and no. of siblings but association with types of family.¹³

Conclusion

The study concluded that there was a significant difference in the knowledge before and after the administration of role play among primary school children. Hence role play was effective as child to child approach among primary school children.

Recommendation

1. Similar studies can be undertaken on a large sample for making a more valid generalization.
2. Studies can be conducted on different samples.
3. A comparative study can be conducted to assess the effectiveness of planned teaching programme on personal hygiene.

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