

A Study to Evaluate the Effectiveness of Child to Child Approach on Knowledge Regarding Pediatric Dermatoses among Selected Institutionalized Children at Shimoga

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Abstract: Skin diseases are one of the major health problems in the pediatric age group and are associated with significant morbidity. The prevalence of pediatric dermatoses in various parts of India has ranged from 8.7% to 35% in school-based surveys. Number of studies suggested overcrowding as an important determinant of skin disease. Objectives of the study is to assess the existing knowledge of institutionalized children regarding selected pediatric dermatoses, through structured interview schedule, to evaluate the effectiveness of child to child approach on knowledge regarding selected pediatric dermatoses by comparing pretest and post test scores, to find out the association between pretest knowledge score and selected demographic variables. The conceptual framework used for the study is based on Imogene King's Goal Attainment model. The study has been carried out in a Govt. Juvenile home in Shimoga. A total of 40 students were selected by non-probability purposive sampling method. The study adopted one group pre-test post-test design. Data collected by using structured interview schedule to assess knowledge of institutionalized children before and after the administration of child to child approach. Post-test was conducted on 7th day after the pretest, using the same structured interview schedule. The data were analyzed using descriptive and inferential statistics. Paired 't' test was used to find the effectiveness of child to child approach and chi-square was used to find the association of pre-test knowledge score with selected demographic variables. The present study has been conducted to assess the knowledge of institutionalized children and to teach them regarding Pediatric Dermatoses. The mean percentage of pretest knowledge score was 40.7% whereas the mean percentage of posttest knowledge score was 81.3%. In pretest the highest percentage 77.5% of respondents had inadequate knowledge; and 22.5% of respondents had moderate knowledge regarding selected Pediatric Dermatoses. In the posttest 72.5% of the respondents had adequate knowledge and 27.5% of the respondents had moderate knowledge and none of the respondents had inadequate knowledge regarding selected Pediatric Dermatoses. The study had shown that majority of the children had inadequate knowledge on Pediatric Dermatoses; however, the knowledge has significantly improved after the administration of child to child approach, hence it was concluded that child to child approach is an effective teaching strategy in improving the knowledge of children.

Keywords: Effectiveness; child to child approach; Pediatric Dermatoses; Institutionalized children

1. Introduction

Pandit Jawaharlal Nehru believed that children must be provided with love and care as the future of a nation lies in their hands. They deserve to inherit a safer and healthier world. As the children are the treasures of a nation, there is no task more important than safeguarding their life. The greatest promise that can be given to a child by a nation is that of health, because the strength of a nation largely depends upon the health of its children.¹

For children as well as adults, visible disease is unpleasant. Children are emotionally labile and a disorder of the skin on exposed areas can become a significant psychological burden. A disfiguring skin disease in childhood may have profound emotional effects. To achieve a prolonged remission, it is essential that the children and their parents have an understanding of the factors responsible for the increased morbidity of Pediatric Dermatoses.²

A study was undertaken by WHO (2005) regarding incidence and prevalence of pediatric dermatoses, published the following results. A total of 18 prevalence studies of the general population in developing countries can be considered representative of large geographical areas; of these, 13 provided data are specific to children, 17 to rural areas, and 4 to urban areas. All reported high

prevalence figures for skin diseases (21-87%), the following disorders are most common in children: pyoderma (prevalence range 0.2-35%), tinea capitis (1-19.7%), scabies (0.2-24%), viral skin disorders (0.4-9%), pediculosis capitis (0-57%), dermatitis (0-5%), and reactions due to insect bites (0-7.2%).³

A triangulated research was conducted in September 2007 at a feasibly selected village Dhotra (Kasar) in Wardha district of central India to study the effect of focused, need based child to child hygiene education on personal hygiene of school children. School based participatory life skills-based child to child hygiene education was undertaken for message dissemination and behavior change. The effect of this hygiene education on identified key behaviors was assessed after one month. The study concluded that the need based, focused, life skills-based child to child education was effective for behavior change.⁴

All the above studies suggested that activity-based learning will be more effective for the pre- school and school age group children. Hence the researcher felt that the institutionalized children need to be taught regarding common pediatric skin disorders, using child to child approach, as this study will be interesting for the children and will be effective in improving the health practices of them.

2. Statement of the Problem

“A study to evaluate the effectiveness of child to child approach on knowledge regarding pediatric dermatoses among selected institutionalized children at Shimoga.”

Objectives of the study

To assess the existing knowledge of institutionalized children regarding selected paediatric dermatoses, through structured interview schedule.

- 1) To evaluate the effectiveness of child to child approach on knowledge regarding selected paediatric dermatoses by comparing pre-test and post-test scores.
- 2) To find out the association between pre-test knowledge score and selected demographic variables.

Assumptions

The study assumes that:

1. The children's knowledge regarding selected paediatric dermatoses, will be less.
2. The child to child concepts of health education have strong chance to improve the knowledge of children.
3. The children will be interested to participate in the role play regarding skin disorders.

Hypothesis

H₁ -The mean post-test knowledge score of institutionalized children, those who are undergoing child to child approach, will be greater than their mean pre-test knowledge score.

Limitation

1. The children in a selected institution only.
2. Children in the age group 9 to 14 years only.
3. Measurement of knowledge gained by CHILD to child approach is, only once after the role play.

Table 1: Frequency and percentage distribution of demographic variables

Demographic variable	Frequency	Percentage
Age group (years)		
9-10	17	42.5
11-12	16	40.0
13-14	7	17.5
Religion		
Hindu	31	77.5
Christian	2	5
Muslim	7	17.5
Educational status		
Lower primary	12	30
Upper primary	22	55
High school	6	15
How often the bed linen changed & washed		
Once in 3 weeks	0	0
Once a month	40	100
Frequency of Medical checkup		
Once in 3 months	40	100
Once in 6 months	0	0
Duration of stay in Institution (years)		
Below 2	13	32.5
2-5	21	52.5
Above 5	6	15
Awareness of Skin Diseases		
Yes	0	0
No	40	100
Past history of Skin Diseases		
Affected	27	67.5
Not affected	13	32.5
Accommodation Facilities		
Double bedroom	16	40
Dormitory	24	60
Ventilation in Room		
Adequate	16	40
Not adequate	24	60

Above table shows that majority of the children 17(42.5%) fall in the age group of 9-10, 16(40.0%) were between 11-

12 years and the minimum 7(17.5%) were between 13-14 years of age. Majority of the children participating in the

study were Hindus 31 (77.5) and Muslims 7 (17.5%) and a minority of Christians 2 (5.0%) respectively. Majority of children 22 (55.0%) were studying in Upper Primary classes and 12(30.0%) were in Lower Primary and a few students 6(15.0%) were in High School. All participants 40(100%) had bed linen washing once in a month. All participants 40(100%) had medical checkup once in 3 months. According to the duration of stay in the institution, majority of children 21(52.5%) were placed in the category of 2-5 years, 13(32.5%) were below 2 years

and minority 6(15.0%) were above 5 years. All participants 40(100%) were unaware of skin diseases. According to the past history of skin diseases, majority of children 27(67.5%) were affected and 13(32.5%) were not affected by skin diseases. According to the accommodation facilities, majority 24(60.0%) were living in dormitory and 16 (40.0%) were in double bed room. Majority of children 24(60.0%) ventilation facility was not adequate and for minority of children 16 (40%) ventilation was adequate.

Table 2: Comparison of pre -test and posttest knowledge level of subjects on Pediatric Dermatoses

N=40

Knowledge Level	Category	Classification of Respondents			
		Pre test		Post test	
		Number	Percent	Number	Percent
Inadequate	<=50% Score	31	77.5	0	0
Moderate	51-75 % Score	9	22.5	11	27.5
Adequate	> 75 % Score	0	0.0	29	72.5

The data presented in the table 2 shows that in pretest the highest percentage 77.5% of respondents had inadequate knowledge; and 22.5% of respondents had moderate knowledge regarding selected Pediatric Dermatoses. In the

posttest 72.5% of the respondents had adequate knowledge and 27.5% of the respondents had moderate knowledge and none of the respondents had inadequate knowledge regarding selected Pediatric Dermatoses.

Table 3: P test showing the significance of mean difference between pretest and posttest knowledge scores of Respondents after the administration of child to child approach

N=40

Areas	Max. Score	Respondents Knowledge				Paired t test
		Mean	SD	Mean (%)	SD (%)	
Pre test	34	13.85	3.0	40.7	8.9	29.51*
Post test	34	27.65	2.2	81.3	6.4	
Enhancement	34	13.80	3.0	40.6	8.7	

Data in table 3 depicts that the mean post-test knowledge score, 81.3 % was higher than the mean pre-test knowledge score 40.7 %. The calculated value, 29.51 was greater than the table value 1.96 at 0.05 level of significance. Therefore, null hypothesis was rejected and

alternative hypothesis (H1) was accepted indicating that the gain in knowledge was not by chance. Hence, it is concluded that there was significant gain in knowledge after implementation of child to child approach.

Table 8: Chi-square test showing the association between pre -test knowledge score and socio -demographic characteristics

Demographic variable	Sample	Knowledge Level				χ ² Value	Table value	Inference (P Value)
		Inadequate		Moderate				
		N	%	N	%			
Age group (years)								
9-10	17	16	94.1	1	5.9	7.57*	5.991 df-2	P<0.05
11-12	16	12	75.0	4	25			
13-14	7	3	42.9	4	57.1			
Religion								
Hindu	31	23	74.2	9	25.8	1.05 NS	5.991 df-2	P>0.05
Christian	2	2	100	0	0			
Muslim	7	6	85.7	1	14			
Educational status								
Lower primary	12	10	83.3	2	16.7	6.87*	5.991 df-2	P<0.05
Upper primary	22	16	72.7	6	27.3			
High school	6	5	83.3	1	16.7			
Duration of stay in Institution (years)								
Below 2	13	9	69.2	4	30.8	1.73 NS	5.991 df-2	P>0.05
2-5	21	18	85.7	3	14.3			
Above 5	6	4	66.7	2	33.3			
Past history of Skin Diseases								
Affected	27	24	88.9	3	11.1	6.18*	3.841 df-1	P<0.05
Not affected	13	7	53.9	6	46.1			
Accommodation Facilities								

Double bedroom	16	15	73.8	1	6.2	2.04 NS	3.841 df-1	P<0.05
Dormitory	24	16	66.7	8	33.3			
Ventilation in Room								
Adequate	16	12	75	4	25	0.91 NS	3.841 df-1	P>0.05
Not adequate	24	19	79.17	5	20.83			
Chi square test. * S-significant, NS-not significant								

Data presented in table 8 shows that calculated chi square values of three demographic variables age, education and past history were significant at 0.05 level of significance. On the contrary the chi square values of religion, duration of institutionalization, awareness on skin disorders, accommodation facilities, frequency of medical checkup, frequency of washing bed linen, ventilation in room were not significant. Hence the null hypothesis is rejected and the research hypothesis is accepted for the demographic variables age, education and past history; the null hypothesis is accepted and the research hypothesis is rejected for the demographic variables religion, duration of institutionalization, awareness on skin disorders, accommodation facilities, frequency of medical checkup, frequency of washing bed linen, ventilation in room. Thus, it is concluded that there was significant association of pretest knowledge score of children regarding Pediatric Dermatoses with age, education and past history of skin diseases.

3. Discussion

Major Findings are as follows

In the present study Chi-square test was used to analyze the association of knowledge scores of children with the selected demographic variables. Calculated chi square values of three demographic variables age, education and past history were significant at 0.05 level of significance. Hence the null hypothesis is rejected and the research hypothesis is accepted for the demographic variables age, education and past history; the null hypothesis is accepted and the research hypothesis is rejected for the demographic variables religion, duration of institutionalization, awareness on skin disorders, accommodation facilities, frequency of medical checkup, frequency of washing bed linen, ventilation in room. Thus, it is concluded that there was significant association of pretest knowledge score of children regarding Pediatric Dermatoses with age, education and past history of skin diseases. The above study findings are supported by another study conducted in Nepal among 110 children to describe the knowledge regarding skin diseases in childhood and relate this knowledge level to their past medical history. A descriptive survey design was used. The analysis of the test results and their comparison with the past medical history shows that children affected with skin disorders obtained high score (78.23%) compared to the children not affected by skin disorders (57.16%). There was significant relationship between past history of the children and their perceived knowledge level 5.

4. Ethical Consideration

Written permission was taken from the Matruchaya orphanage Gopala, Shimoga. Written Informed consent was taken from each study samples.

5. Conclusion

The data were analyzed with descriptive and inferential statistics (paired t test and chi square test). The significance of the CHILD to child approach was proved with enhancement in the post-test score and a mean of 81.3% in comparison to the mean of 40.7% in pre-test. It was also evident from paired t test $t = 29.51$ (0.05, 39df) = 1.96 $P < 0.05$. This suggested that the child to child approach was effective in improving the knowledge of the children regarding Pediatric Dermatoses. Significant association was found between pre-test score with selected demographic variables. The findings of the present study will have great implications for nursing education, nursing practice, nursing administration, and nursing research. Further research studies are recommended to produce more reliable result.

Reference

- [1] K.C. Chaudhuri. Importance-of-children's-day[Internet].2008 [updated 10 Nov.2008, cited 16 March2012].Available from: <http://www.India parenting.com/html>
- [2] Jeffry Gross, Siba P. Ray Chaudhuri. A Comparative Study of Pediatric Onset Psoriasis with Adult Onset Psoriasis. *Pediatric dermatology*.2000 May/June; 17 (3): 174.
- [3] Dr Antoine Mahé, MD, PhD, Libreville, Gabon. Epidemiology and Management of Common Skin Diseases in Children in Developing Countries. WHO Publication, Department of Child and Adolescent Health and Development;2005. p.5.
- [4] Dongre AR and Deshmukh PR. An approach to hygiene education among rural. Indian school going children. *Online Journal of Health and Allied Science*[Internet].2008;[Updated 25 Feb 2008,Cited 22 March 2012]. 14(2):32-35. Available from: <http://cogprints.org/5932/>
- [5] Evrim B. Turkbevy, Robyn L. McClell and, Richard A. Kronmal, Gregory L.Burke, Diane E. Bild. Knowledge regarding skin diseases in childhood, *Inter Jour of Derm*. March 2010;Volume 3, Issue 3. Pages 266-274