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## A study to assess the effect of health teaching on knowledge and practice, regarding feeding technique among care takers of cerebral palsy children in selected orphanages

**Jasmin Shijo and Dr. Shweta Joshi**

**Abstract**

**Introduction:** Cerebral Palsy is not a progressive disorder but the symptoms can become more severe over time due to subdural damage. Children are the world's most valuable resource and its best hope for future. The effect of health teaching on knowledge and practice regarding feeding technique among care takers of cerebral palsy children in selected orphanages of pune city. The conceptual frame work of the present study is based on Imogene King's goal attainment Model.

**Material and Methodology:** The researcher has adopted Pre- experimental one-group pre-test post-test design; A Non Probability Convenient Sampling Technique was used for this study. The 30 Sample was selected from the home for special children. The researcher prepared a structured interview questionnaire and observational checklist as a tool for this study. The tool consisted of 2 sections. Section I consists of demographic profile. Section II consists of structured interview questionnaire and Section III consists of Observational checklist. The content validity was determined by the experts. The reliability of the tool was done by Inter rator observer Method and was found to be 0.85.

**Result:** Pre-test mean score was 7.8 with standard deviation of 9 and in post-test mean score were 12.9 with standard deviation of 1.1. Paired t-test for comparison of practice scores of care takers in pre-test and post-test. Average practice score in pre-test was 7.8 which increased to 12.9 in post-test. T-value corresponding to this comparison was 13.3 with 29 degrees of freedom. Corresponding p-value was 0.000, which is small (less than 0.05), the null hypothesis is rejected. Health teaching is proved to be significantly effective in improving the practices of care takers of children with cerebral palsy regarding feeding technique. Findings related to association of knowledge and practice with selected socio-demographic variables was assessed by using Fisher's exact test. Since all the p-values are large (greater than 0.05), there is no evidence against null hypothesis. None of the demographic variable was found to have significant association with knowledge and practice of care takers of children with cerebral palsy regarding feeding techniques.

**Conclusion:** It has been observed that pretest knowledge average mean score is 11.5 and practice score is 7.8 after planned health teaching knowledge average score rises to 17.1 and 12.9 respectively. This indicates that the knowledge and practice grades improved after planned teaching. All the p-values are large (greater than 0.05), none of the demographic variable was found to have significant association with knowledge and practices of care takers of children with cerebral palsy regarding feeding techniques.

**Keywords:** Effect, health teaching, feeding technique, care takers, cerebral palsy

### 1. Introduction

"Feeding" is the term used for offering nutrition to someone who is not able to eat independently, while "eating" refers to the act of taking food independently. Cerebral Palsy is not a progressive disorder but the symptoms can become more severe over time due to subdural damage. Children are the world's most valuable resource and its best hope for future. The studies on cerebral palsy conducted in different settings in the year 2012 revealed that, is a common neurological disorder in children. It is estimated that the world wide incidence of cerebral palsy is approximately 3 per 1000 live births. In India the incidence of cerebral palsy is 3 -4cases per 1000 live births. Children with cerebral palsy often have associated feeding and swallowing difficulties.

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Common problems affecting feeding include tongue thrusting, prolonged or exaggerated bite reflex, abnormally increased or decreased gag reflex, tactile hypersensitivity, and drooling. Coughing, chronic wheezing, or bronchitis can be secondary to aspiration during swallowing or gastro esophageal reflux. Self-care is any activity children do to care for themselves. For many children with cerebral palsy, parents and care takers are heavily involved in self-care activities such as bathing, dressing, grooming and feeding and toilet training. Care givers education is an important component it empower the care giver and improves their role efficacy. Feeding and eating are important activities that allow individuals to maintain adequate nutrition.

## **Methodology**

### **Research Approach**

Evaluative Research approach

### **Research Design**

Pre- experimental one-group pre-test post-test design

## **Variables Under Study**

### **Dependent variable**

Knowledge and practice regarding feeding technique among care takers of cerebral palsy children.

### **Independent Variable**

In this study independent variable is Health Teaching.

### **Research Setting**

The setting for this study was the selected orphanages in PCMC, Pune.

### **Population**

The population of the present study comprises the care takers of cerebral palsy children in selected orphanages at PCMC, Pune.

## **Sample Selection criteria (Inclusion and Exclusion)**

### **Inclusion criteria**

Care givers who are caring cerebral palsy children age between 3-14 years and who are available at the time of data collection.

### **Exclusion criteria**

Care givers who are not willing to participate in this study and Care givers who cannot understand Hindi.

**Sample** The sample selected for the present study comprised of care takers of cerebral palsy children in Prerna home for special children Wakad and Kalyani School for special children, Mehete Vasti, Chikhali.

**Sample Size:** 30

### **Sampling Technique**

Non Probability Convenience Sampling Technique

### **Development of Tool**

Opinions and suggestions were taken from the experts, which helped in determining the important areas to be included.

## **Description of the tool**

### **It includes three sections**

**Section I:** This section involves items searching the information on demographic profile of a sample such as age, gender, education, experience of care taker working with cerebral palsy children and source of information.

**Section II:** Deals with Structured interview questionnaire total 25 questions to assess the effect of health teaching on knowledge regarding feeding technique among care takers of cerebral palsy children. Total score is divided as poor, average and good.

**Section III:** This section deals with Observational checklist for the assessment of Practice of feeding technique of care takers those who are feeding spastic dieplegic cerebral palsy children. Total score is divided as poor, Average and Good. The researcher prepared a lesson plan on health teaching on cerebral palsy. It includes types of cerebral palsy, clinical features of cerebral palsy, and causes of cerebral palsy and feeding technique of child with cerebral palsy.

## **Validity**

The data collection tool was sent to experts along with a scoring sheet for content validity. Tool was sent to 20 experts out of whom, 15 were received back with their valuable suggestions and guidance for the perfection. The validity of the tool was established by experts from the different departments i.e. Paediatric Medicine, Paediatric nursing, Medical surgical Nursing, Paediatric physiotherapist and Educationist. The valuable suggestions from the experts were used to receive a positive direction for the study. Certain items were modified as per their suggestions. After validation, the tool was translated from English to Hindi

## **Ethical consideration**

- Researcher had obtained approval from appropriate review boards to conduct the study.
- Researcher had taken formal permission from the Orphanages to conduct study.
- Only the samples who had signed the consent form are included in the study.
- Confidentiality of the data is maintained strictly

## **Reliability**

Reliability for knowledge was assessed using test-retest method. Pearson's correlation coefficient was 0.85. For practices, reliability was assessed using inter-rater method. Cohen's Kappa was found to be 0.85. Hence the tool is found to be reliable for the study.

## **Pilot study**

After doing pilot study investigator found that it is feasible to carry out actual study

## **Plan for data collection**

- A formal permission was obtained from authorities of the selected orphanage in PCMC, Pune.
- Actual data collection was done on 30 care takers meeting the criteria for the study.
- The investigator approached the selected samples, informed them regarding the objectives of the study and

obtained their consent after assuring the confidentiality of the data.

- The investigator had done pre-test, then provide health teaching on feeding technique of cerebral palsy children and then on the 7<sup>th</sup> day post-test has been done to assess the effect of health teaching on knowledge and practice regarding feeding technique among care takers of cerebral palsy children.
- The duration of the data collection for each sample was 25 to 30 minutes.

**Data analysis and interpretation**

The data analysis was planned to include descriptive and inferential statistics. The following plan for analysis was made with the opinion of experts. The analysis would be done based on the objectives to be tested.

- Items related to the background variables would be analyzed in terms of frequency and percentages.
- Scores would be graded in 3 categories i.e. Poor, Average and Good
- Frequency distribution would be plotted to represent the final score.
- Mean, standard deviation of the test would be computed.
- The findings would be documented in tables, graphs and diagrams.

**2. Result**

The major findings of the study were based on the objective of the study.

**Section I Demographic characteristics**

The majority 30% of the care takers had age 31-40 years, 20% of them had age 21-30 years, 26.7% of them had age less than 20 years and 23.3% of them had age above 40 years. All of them were females.30% of them had education up to primary, 46.7% of them had secondary education, 20% of them had higher secondary and 3.3% of them had graduation and above.46.7% of them had 13-18 months of

experience of care taker working with cerebral palsy children, 43.3% of them had more than 19 months and 10% of them had experience of 7 to 12 months.66.7% of them had previous information about feeding technique of child with cerebral palsy.26.7% of them had information about from Health worker or nurse and 30% of them had information from friends or family members.

**Section II:** Analysis of data related to assessment of the knowledge and practice regarding feeding technique of children with cerebral palsy among care takers

In pre-test, majority of 96.7% of the care takers of children with cerebral palsy had average knowledge and 3.3% of them had poor knowledge regarding feeding technique. In pretest, majority of 83.3% of the care takers of children with cerebral palsy had average practices regarding feeding technique, 10% of them had good practices and 6.7% of them had poor practices regarding feeding technique.

**Section III:** Analysis of data related to the effect of health teaching on knowledge and practice of the care takers regarding feeding techniques of cerebral palsy child.

Average knowledge score in pre-test was 11.5 which increased to 17.1 in post-test. T-value corresponding to this comparison was 9.7 with 29 degrees of freedom. Corresponding p-value was 0.000, which is small (less than 0.05), the null hypothesis is rejected. Average practice score in pre-test was 7.8 which increased to 12.9 in post-test. T-value corresponding to this comparison was 13.3 with 29 degrees of freedom. Corresponding p-value was 0.000, which is small (less than 0.05). Health teaching is proved to be significantly effective in improving the knowledge and practices of care takers of children with cerebral palsy regarding feeding technique.

**Section III:** Analysis of data related to association between the level of knowledge and practice with selected socio-demographic variables

**Table 5:** Association of knowledge with selected socio-demographic variables

Sr. No	Demographic variable	Knowledge		p-value	Remarks	
		Poor	Average			
1	Age	< 20 years	0	8	1.000	No association
		21-30 years	0	6		
		31-40 years	1	8		
		41 and above	0	7		
2	Educational status	Primary	1	8	0.533	No association
		Secondary	0	14		
		Higher secondary	0	6		
		Graduation and above	0	1		
3	Experience of care taker	07-12 months	0	3	0.533	No association
		13-18 months	0	14		
		> 19 months	1	12		
4	Previous information about feeding technique	Yes	1	19	0.667	No association
		No	0	10		

All the p-values are large (greater than 0.05), none of the demographic variable was found to have significant

association with knowledge of care takers of children with cerebral palsy regarding feeding techniques

**Table 6:** Association between the practices and the selected socio-demographic variables

Demographic variable		Practice			p-value	Remarks
		Poor	Average	Good		
Age of the care taker	< 20 years	0	7	1	0.785	No association
	21-30 years	1	4	1		
	31-40 years	1	7	1		
	41 and above	0	7	0		
Educational status	Primary	1	7	1	1.000	No association
	Secondary	1	11	2		
	Higher secondary	0	6	0		
	Graduation and above	0	1	0		
Experience of care taker	07-12 months	0	3	0	0.880	No association
	13-18 months	1	12	1		
	> 19 months	1	10	2		
Previous information about feeding technique	Yes	2	17	1	0.335	No association
	No	0	8	2		

All the p-values are large (greater than 0.05), none of the demographic variable was found to have significant association with practices of care takers of children with cerebral palsy regarding feeding techniques

### 3. Discussion

This study involved one group pre-test and post-test design, non-probability convenient sampling technique used to draw samples. The size of the sample was 30 care takers of cerebral palsy children were done according to inclusion and exclusion criteria. Pretest was conducted and planned teaching was given on the same day and post-test was taken on 7<sup>th</sup> day to assess the effectiveness of planned teaching on knowledge and practices. In this study the pretest knowledge average mean score is 11.5 and practice score is 7.8 after planned teaching knowledge average score rises to 17.1 and 12.9 respectively. The above findings is supported by Shyamani Hettiarachchi conducted a study on effect of an experiential dysphagia workshop on caregivers' knowledge, confidence during mealtimes. The mean score of the group of mothers with regard to knowledge was 28.72 before the workshop and 44.00 after the training.

The association of knowledge and practice with selected socio-demographic variables was assessed by using Fisher's exact test. Since all the p-values are large (greater than 0.05), there is no evidence against null hypothesis. None of the demographic variable was found to have significant association with knowledge and practice of care takers of children with cerebral palsy regarding feeding techniques. The above findings is supported by a study was conducted to assess the effectiveness of structured teaching programme on care of the cerebral palsy children among the care givers. The overall pre -test and post- test mean knowledge found to be 43.9% and 74.8% indicating the enhancement of knowledge as 30.9% proved statistically significant,  $p < 0.05$  in indicating the effectiveness of structured teaching programme. Conclusion was significant association between the variables like education and Source of knowledge of the care givers with pre-test and post -test knowledge scores. In the present study observed that health teaching is effective in improvement of knowledge and practice regarding feeding technique among care takers of cerebral palsy children. The nursing profession could pay an important role in encouraging wider teaching programme of feeding technique among care takers of cerebral palsy children.

### 4. Conclusion

It has been observed that pretest knowledge average mean score is 11.5 and practice score is 7.8 after planned health teaching knowledge average score rises to 17.1 and 12.9 respectively. This indicates that the knowledge and practice grades improved after planned teaching. All the p-values are large (greater than 0.05), none of the demographic variable was found to have significant association with knowledge and practices of care takers of children with cerebral palsy regarding feeding techniques

### 5. Limitations of the study

The study is limited to

- Care takers who can understand English or Hindi.
- Limited setting and samples.
- Duration of data collection

### 6. Recommendations

Following study can be undertaken in relation to present study.

- A similar study can be replicated by taking larger sample of care givers with different demographic characteristics.
- The study can be undertaken in different settings and different target population such as Parents and family members.
- A case study can be done to assess the effect of structured teaching programme on knowledge and practice among care takers of cerebral palsy children.
- A Comparative study can be done between the people in rural community and urban community.
- A similar study may be repeated with a control group for more generalization.
- A study can be done to see the effect of planned teaching on care of cerebral palsy children among care takers.
- A similar study can also be done to see the effect of information booklet on practices regarding feeding technique among parents of cerebral palsy children.
- A study can be conducted by using different teaching methods like self-instructional module, booklet, etc.

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"Lord, thank you for walking with us through the seasons of our lives. Let us be grateful to the people who make us happy; they are the charming gardeners who make our souls

blossom.’’ It is something beyond one’s human ability to put in words one’s sincere feeling of gratitude to those whom one Owens’s something.

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