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The Effect of Self-Instructional Module on Knowledge of Caregivers of Children with Cerebral Palsy

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Abstract: ***Children with Cerebral Palsy require all the usual health care recommended for any child. Parents maybe require instructional practices related to safety environment, feeding programs, immunization, hearing, vision, and dental screening and use of assistive devices. Caregiver plays as essential role in the early identification and observation of growth patterns of children with Cerebral Palsy; they give appropriate encouragement and assistance to the child to achieve their highest potential. Purpose: to study the effect of self-instructional module on knowledge of caregivers of children with cerebral palsy. Objectives: to assess the effect of self-instructional module on knowledge of caregivers of children with cerebral palsy. Material and methods: this was a quantitative descriptive survey pilot study with pre-test and post-test research design. The sample size was 10 caregivers of children with Cerebral Palsy and consists of one group of caregivers. Purposive sampling technique was used for the selection of sample. The group was having 10 samples and received information booklet as an intervention in Bharati Hospital, Pune during February 2015 to Jun 2015. Tool was developed in two parts, first was demographic data of the caregivers, second knowledge questionnaire. Results:Majority of children with Cerebral Palsy were males while female children with Cerebral Palsy included a small population and none of these children had other siblings affected by Cerebral Palsy. (70%) of the caregivers had scored average knowledge during pre-test while 60% of caregivers continue to have average knowledge during post-test scores and 40% had scored good knowledge after administration of self-instructional module. This shows that there is improvement in the knowledge of caregivers of children with cerebral palsy.Conclusion: They study concluded that there was a significant increase in the knowledge of caregivers of children with cerebral palsy.***

Keywords: Self-instructional Module, Caregiver, Cerebral Palsy

1. Introduction

Caregiver plays as essential role in the early identification and observation of growth patterns of children with Cerebral Palsy; they give appropriate encouragement and assistance to the child to achieve their highest potential. Caregivers need advice in how the associated conditions with Cerebral Palsy may affect or change activities of daily living, like sleeping, dressing and toileting, with age-appropriate focus on planning and knowledge strategies that aims to enhance the functional abilities of the child. (Hocherty,et al. 2005) [1]

2. Review of Literature

Limited level of knowledge, and accessibility and coordination of resources and services has been recognized as barriers the to social participation in the community for disabled children. Parents both desire more coordinated information about health, school and targeting services for their child. (Law, et al., 1999) [2]

A critical review of evidence from the World Health Organization Literature on environmental factors; search on electrical database and talk to specialists Published articles recommended there are variety of factors and barriers identified by both children with disabilities and their parents. These include: inadequate public services, loss of income, incomplete information about available resources and services with uncoordinated management have a direct impact on levels of child participation in the environment. (Mihaylov, et al., 2004) [3]

Personnel are facing crisis of knowledge on managing of needs of children with disabilities as revealed by health care provider as a challenges to proving community-based services. (Rosenberg, 2000) [4]

Caregiver plays as essential role in the early identification and observation of growth patterns of children with Cerebral Palsy; they give appropriate encouragement and assistance to the child to achieve their highest potential. Caregivers need advice in how the associated conditions with Cerebral Palsy may affect or change activities of daily living, like sleeping, dressing and toileting, with age-appropriate focus on planning and knowledge strategies that aims to enhance the functional abilities of the child. (Hocherty,et al. 2005) [1]

3. Materials and Methods

This study used the quantitative research approach. A pre-experimental study with one group pre-test post-test research design was considered best sited to the study. This design was used since the study evaluated the effect of self-instructional module (independent variable) on knowledge and self-expressed skills of caregivers (dependent variables). The base measure was the knowledge and the experiential variable was self-instructional module. Schematic representation of the research design is illustrated as figure 1.The measurement of knowledge were done immediately before 7 to 8 days after administration of self-instructional module i.e. information booklet.

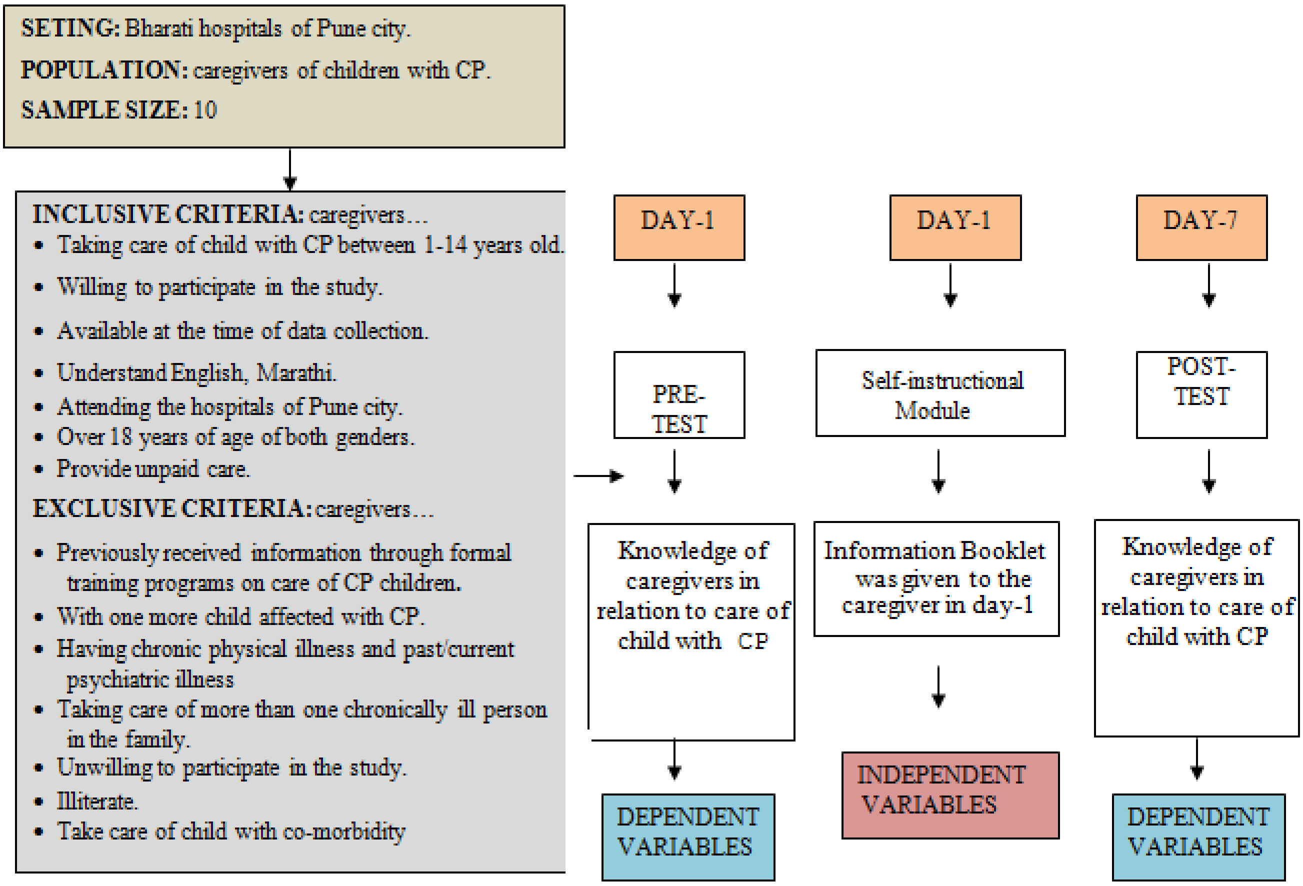

Figure 1: Schematic Representation of Research Design

Description of the tool:

Section I: Demographic profile

Section one was prepared to collect general information about the child with Cerebral Palsy and his/her caregiver. It is a case report sheet about variables such as:

- **Facts about child**

This consisted of the facts about child such as sex, date of birth, cause of cerebral palsy, associated condition, and other sibling affected.

- **Health status**

Frequency distribution of child based on health status of child with Cerebral Palsy according to caregivers i.e. How would you rate your child's overall health.

- **Facts about caregiver**

This consist of the facts about caregiver such as sex, date of birth, type of relationship to child, marital status, education level, work status, monthly income, type of family, residence, how many days per week responsible for caregiving activities, family history of cerebral palsy, previous exposure of caring cerebral palsy, previous exposure of information regarding cerebral palsy, source of information and question regarding overall all health of child.

Section II: Knowledge questionnaire

Knowledge questionnaires were to assess the knowledge of caregivers in relation to care of children with cerebral palsy. The investigator developed this tool. Experts in the field of nursing and physiotherapy department did content validity of the tool. The questionnaire consisted of thirty-three items. The questionnaire included knowledge about general aspects of cerebral palsy, carrying and positioning, communication, everyday activities, feeding, use of assistive device, and evaluation for seizure. Scoring: Each correct answer was given a score of one and any item that the caregiver does not attempt or it omitted during the assessment is given score 0. A total score of thirty-three was possible. The scoring based on four-point scale using the following key.

Poor	0-11
Average	12-22
Good	23-33

4. Assessment of the Knowledge Level

Section I: Demographic profile

Finding related to analysis of demographic data of samples.

- **Facts about child**

Majority of children with Cerebral Palsy were males while female children with Cerebral Palsy included a small population and none of these children had other siblings affected by Cerebral Palsy. According to caregivers 30% of children had cerebral palsy after birth, 30% of them had it during birth, another 30% of them don't know the cause of cerebral palsy and only 10% of them had cerebral palsy before birth.

- **Health status**

40% of them rated their child's overall health fair, 40% of them had rated their child's health score at good, 10% of them had rated the child very good and 10% of them had rated their child excellent.

- **Facts about caregiver**

All caregivers were female taking care of child with Cerebral Palsy. (50%) of caregivers had secondary education, 40% of them were graduates and 10% of them had primary education. All of caregivers were homemakers. Half (50%) of caregivers had monthly income more than Rups. 15000. Half (50%) of them had joint family and another half (50%) of them had nuclear family.Majority of 90% of caregivers were from urban area. 100% of caregivers engaged for care giving activities for 7 days in a week.

Section II: Findings related to analysis of the data related to the overall pre-test knowledge of caregivers in relation to care of child with Cerebral Palsy

In relation to overall pre-test knowledge of caregivers of children with Cerebral Palsy, (70%) of study subjects belonged to average category and score (12-22) during pre-test knowledge while only (30%) of caregivers found in poor category with scoring of (0-11).

Table 1: The overall pre-test knowledge of caregivers of children with Cerebral Palsy N=10

Knowledge	Pre-test	
	Freq	%
Poor (Score 0-11)	3	30%
Average (Score 12-22)	7	70%
Good (Score 23-33)	0	0%

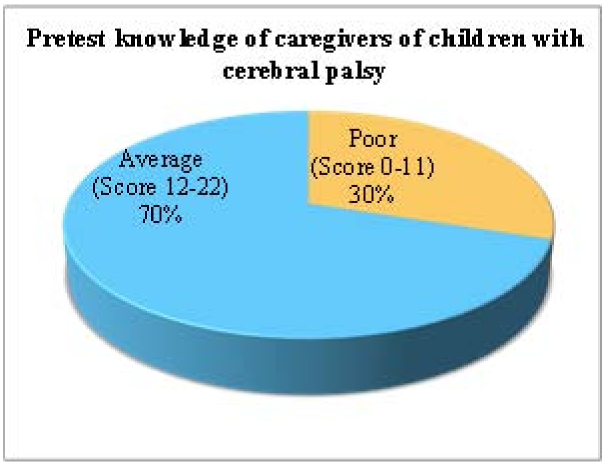

Figure 2: The overall pre-test knowledge of caregivers of children with Cerebral Palsy

5. Results

Findings related to analysis of data related to the effectiveness of self-instructional module on knowledge among caregivers in relation to care of child with Cerebral Palsy.

Findings related to the overall analysis of data in relation to pre-test knowledge revealed that (70%) of the samples had scored average knowledge during pre-test while 60% of caregivers continue to have average knowledge during post-test scores and 40% had scored good knowledge after administration of self-instructional module. This shows that there is improvement in the knowledge of caregivers of children with cerebral palsy after administration of self-instructional module. The finding related to the score distribution of knowledge presented in table 2.

Table 2: Assess the effect of self-instructional module on the knowledge of caregivers of children with cerebral palsy N=10

Knowledge	Pre-test		Post-test	
	Freq	%	Freq	%
Poor (Score 0-11)	3	30%	0	0%
Average (Score 12-22)	7	70%	6	60%
Good (Score 23-33)	0	0%	4	40%

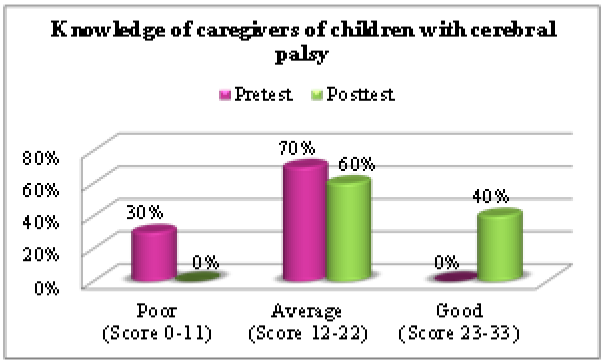

Figure 3: Pre-test and post-test knowledge of caregivers after administration of self-instructional Module

Table 3: Paired t-test for effectiveness of self-instructional module on the knowledge of caregivers of children with cerebral palsy

Knowledge	Mean	SD	T	df	p-value
Pre-test	12.6	4.2	7.5	9	0.000
Post-test	21.9	4.1			

Paired t-test was used to compare pre-test and post-test knowledge scores of caregivers of children with Cerebral Palsy. Average knowledge score in pre-test was 12.6, which were 21.9 in post-test. T-value for this comparison was 7.5 with 9 degrees of freedom. Corresponding p-value was 0.00, which is small (less than 0.05), thus Self-instructional modulesignificantly improved the knowledge of caregivers of children with cerebral palsy.

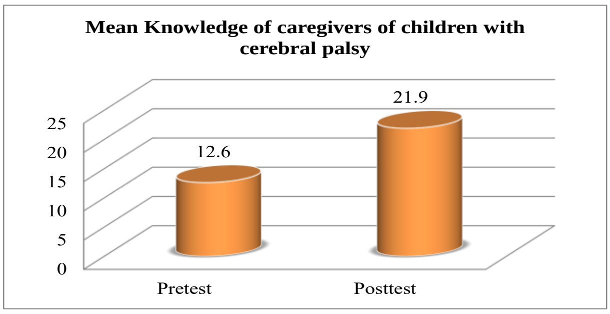

Figure 4: Overall Mean Knowledge of caregivers of children with Cerebral Palsy after administration of self-instructional module

6. Discussion

Total 10 caregivers were selected using a purposive sampling technique. Each caregiver was observed before and after administration of self-instructional module (Information Booklet) through knowledge questionnaire and self-reported practice. A structured questionnaire was developed to assess the knowledge of caregivers regarding care of child with cerebral palsy.The study concluded that there was a significant increase in the knowledge of caregivers of children with cerebral palsy as evidenced by an increase in the mean knowledge scores in the post-test (12.6 in the pre-test to 21.9 in the post-test).It is supported by the A quasi-experimental one-group pre-test post-test research design was adapted to assess pre-test and post-test knowledge regarding home care management of children with Cerebral Palsy among mothers in special schools at Bangalore. The Structured Questionnaires were administered before and after Structured Teaching Program. Indicated that structured teaching program enhanced knowledge of the caregivers on care of Cerebral Palsy children. (Lakshmi &Saraswathi 2012) [5]

The results of this study cannot be generalized to all children with Cerebral Palsy, as the size of sample in this study was small. It was very difficult to isolate the self-instructional module from those of other sources like mass media, friends, Internet, magazine etc.

7. Conclusion

In the Indian context, the caregiver role often falls upon the woman in a household and is seen as her duty. This study concluded that adequate knowledge would help the caregivers to increase their awareness of safe practices in relation to care of their children with Cerebral Palsy and thereby improve their knowledge.

8. Scope of the Study

Finding suggests that, because caregiving is a day-in, day-out role that changes according to needs of child with Cerebral Palsy, it is necessary to follow and admit the care requirements in each stage of the illness. The study attempted to impart information to the caregivers regarding care of children with Cerebral Palsy.

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Author Profile

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