

Effectiveness of Planned Teaching Programme on Basic Management of the Cerebral Palsy Children among the Family in Pune City

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Abstract: *Cerebral palsy is a developmental disability described By “WilliamLittle” in the 1840’s. In the term Cerebral Palsy (CP), “Cerebral” refers to the injured Central nervous system (CNS) and “Palsy” describes the lack of voluntary muscle strength or control. Cerebral palsy (CP) is a disorder that affects a person’s movement, balance and posture. CP is the common motor disability among children. Cerebral is brain. Palsy is weakness or inability to use the muscles. CP is due to abnormal brain development & damage of brain that affects ability to control muscular movement. CP has wide variety of symptoms. Child may need special walking aid, or might not be able to walk & require long term care/supervision. If the family members have inadequate knowledge regarding the care of cerebral palsy children, which can affect their practices. Family members are supposed to be active members in caring for children with cerebral palsy. Hence the investigator had taken effort to study the effectiveness of PTP on Basic management of cerebral palsy children among family members and to give information to the family members on basic management of cerebral palsy children. The study presented with the mean pre-test knowledge scores related to Basic management of cerebral palsy children was 43.9% with regard to a maximum possible score of 40. The mean post-test knowledge scores were 74.8%. The difference between the pre-test mean and post-test mean knowledge score was found to be statistically significant at 0.05 level ($t(39) = p < 0.05$) 15.63, suggesting that the PTP was an effective method of learning. There was no significant association between the variables like age, Sex, occupation, area of residence, type of family, and source of knowledge of the care givers with pre-test and post-test knowledge scores. The planned teaching programme was effective in enhancing the knowledge and found to be significant in all the aspects of management of cerebral palsy children under study.*

Keywords: Cerebral Palsy, Children, Family, Planned Teaching Programme, Home Management

1. Introduction

Cerebral palsy is a developmental disability described By “WilliamLittle” in the 1840’s. In the term Cerebral Palsy (CP), “Cerebral” refers to the injured Central nervous system (CNS) and “Palsy” describes the lack of voluntary muscle strength or control. Cerebral palsy (CP) is a disorder that affects a person’s movement, balance and posture. CP is the common motor disability among children. *Cerebral* is brain. *Palsy* is weakness or inability to use the muscles. CP is due to abnormal brain development & damage of brain that affects ability to control muscular movement. CP has wide variety of symptoms. Child may need special walking aid, or might not be able to walk & require long term care/supervision. Mild CP can walk, may be little awkwardly, without special help. CP is non progressive in nature, but symptoms can change over the period of lifetime. Cerebral Palsy has different types. The revised classification now in use defines 3 main categories of motor disorders (1) Spastic (70-80%), (2) Dyskinetic (10-15%), and (3) Ataxic (<5%). Management includes taking care of associated problems like (seizures, MR, speech and impairment), Physiotherapy, Speech therapy Occupational therapy, Surgical/Orthopedic therapy, Follow up and outcome, Drugs. Cerebral Palsy prevention involves identifying the magnitude, scope and characteristics of the issue, identifying the risk factors that can be modified, evaluating preventive measures, and applying the most feasible interventions in community-based approaches.

Many researchers accept the need for disabled children to be integrated fully into society. They say “The change now needed concerns attitudes. Pity and sorrow should not be directed to disabled children because our findings indicate

they experience most of life as do non-disabled children. Therefore, maximum effort is needed to support the social and educational policies that recognize the similarity between the lives of disabled children and those of other children, and ensure their rights as citizens, rather than as disabled children, to participate in society as fully as other children.”⁸

2. Literature Survey

A study on Prevalence of cerebral palsy was done to determine prevalence of congenital cerebral palsy (CP) over a 16-year period. 1-year survivors using a large, population-based surveillance program in a 5-country metropolitan Atlanta area for the periods from 1975-1977, 1981-1985, and 1986-1991. There was a modest increase in the overall prevalence of congenital CP from 1.7 to 2.0 per 1000 1-year survivors during the period from 1975–1991. They concluded that the only ongoing population-based study of CP in the United States, there has been a modest increase in the prevalence of CP in 1-year survivors born from 1975–1991. This increase however was seen only in infant survivors of normal birth weight. No change was seen in the trends in CP prevalence in low birth weight and very low birth weight infant based on infant survivors.⁵

A study on “Health-related quality of life in childhood cerebral palsy” To describe the health-related quality of life (HRQOL) of a cross section of children with cerebral palsy (CP) using the child health questionnaire. The children from Outpatient clinics at a tertiary care children’s hospital were taken total N=177; 98 boys, 79 girls mean age standard deviation (SD), 8.64(2y) with CP were enrolled as a convenience sample. Study subjects were stratified by

severity of CP using the Gross motor Function classification system. the author concluded that children with CP have reduced HRQOL and the degree to which it is reduced is related to the severity of their CP.⁶

A study on the training and support programme for parents of children with cerebral palsy evaluated the aim of these process evaluations to better understand designed to train parents to massage their children with cerebral palsy. Seventy parents completed the training and support programme (TSP) with their children. Implications for practice included therapist’s sensitivity to the needs of each parent and child, the need for flexibility in the delivery of (TSP) and the implementation of strategies to ensure the TSP runs smoothly.⁷

A study on “Use of physical therapy and alternatives by young with cerebral palsy: a population study”. To describe the use of physiotherapy services and alternative therapies by a population of children with moderate to severe cerebral palsy (CP), descriptive cross-sectional survey was done. A total of 212 parents of children aged 4-14 years with moderate to severe CP were identified from the northern Ireland cerebral palsy register (NICPR) and a random sub sample of their pediatric physiotherapists. The results were found that the service use among families was high; on average the families had contact with approximately seven services in a 6-month time interval. So the demand for physiotherapy services is likely to continue given the relatively stable prevalence rate of cerebral palsy.⁸

A study on the relationships between social skills, social support, self-esteem and burden in adult care givers explored the relationships between social skills, self-esteem, social support and burden in a sample of adult caregivers. Some felt more discomfort in situations also had less social support. Caregivers who had significantly more affection, affirmation and aid from within their social network were found to have higher self-esteem. Those with lower self-esteem reported losing a greater number of important relationships in the past year. Nonassertive caregivers were more likely to experience lower subjective burden.⁹

3. Methods / Approach

The design is based on the purpose of the study, research approach and variables to be studied. One group pre-test-post-test research design, which belongs to pre-experimental design was selected.

Group	Pre-test	Intervention	Post-test
Family member (40)	Day-1	Day-1	Day-7
	O ₁	X	O ₂
	(Dependent variable)	(Independent variable)	(Dependent variable)

O₁: Knowledge test on the first day using structured questionnaire before PTP.

O₂: Knowledge test on the 7th day using structured questionnaire after PTP.

X: Administration of prepared PTP on the first day.

Validity: Content validity was established by 15 experts in the field.

Reliability: Established by split half method. The reliability co-efficient of the test was found to be $r = 0.9434$ and validity co-efficient was 0.9709. Since the computed correlation of knowledge score was very high, the tool was found to be reliable for the study.

4. Results / Discussion

Section I: Description of the Demographic Characteristics:

The data obtained from sample are presented in terms of age, sex, education, occupation, history of consanguineous marriage, type of family, and source of knowledge. Majority 21(52.5%) of the Respondents were in the age group of 31-40 years, 23 (57.5%) were found as Female Respondents and 21 (52.5%) were found with the Primary level of education. 13(32.5%) emerge with government service as occupation 23(57.5%) were belongs to Nuclear families, 38 (95.0%) Urban area and 28 (70.0%) had History of consanguineous marriages Majority of the Respondents 12(30.0%) had youngest child in family belongs to the age of 2 years. 31(77.5%) had the source of knowledge through books/paper/magazines.

Section II: Analysis of the of the Knowledge Scores of the Respondents in Pre- Test and Post- Test:

The distribution of aspect wise pre test mean knowledge scores. General aspects the mean knowledge score was 80.0%, in the aspect of causes the mean knowledge score was 40.8%, in types and clinical manifestations 47.5%, in diagnosis and associated problems of cerebral palsy 50.6%, in Management the mean knowledge score was 47.3% ,and in care aspect 35.4%, and Prevention 17.5%. the total mean pre-test knowledge score was 43.9% with standard deviation of $\pm 15.8\%$. General aspects, the mean knowledge score was 99.0%, in the aspect of causes, the mean knowledge score was 90.8%, in types and clinical manifestations 70.8%, in Diagnosis and associated problems 85.6%, in Management 80.0% and in care aspect the mean knowledge score was 61.3% and in prevention 70.0%. the total mean post-test knowledge score was 74.8% with standard deviation of ± 9.0 .

Section-III: Analysis of effectiveness of planned teaching programme on basic management of cerebral palsy children among the family members, N=40

Aspect	Statements	Max score	Knowledge Response			Paired t-Test
			Mean	Mean (%)	SD (%)	
Pre test	40	40	17.55	43.9	15.8	15.63*
Post test	40	40	29.93	74.8	9.0	
Difference	40	40	12.38	30.9	12.5	

* Significant at 5% level,

The overall scores which reveals the post test mean knowledge score was higher (74.8%) with SD of ± 9.0 when compared with pre-test mean knowledge score value which was 43.9% with standard deviation of ± 15.8 . The statistical paired ‘t’ test implies that the difference in the pre-test and post- test knowledge score found statistically significant at 5% level. The post test mean Knowledge difference was 30.9% with a paired ‘t’ value of 15.63. Hence H₁ is accepted and H₀ is rejected. Thus there is significant association

between pre test knowledge scores and post test knowledge scores on basic management of cerebral palsy children among family members.

Section IV: Association of selected base line variables such as age, sex, occupation, area of residence, type of family and source of knowledge with pre test and post test knowledge scores: Association between Selected Demographic variables and pre test knowledge scores. In Pre test there is no association between base line variables Knowledge level. In Post test also there was no association between demographic variables & Knowledge level of Respondents on basic management of cerebral palsy children.

5. Conclusion

It can be concluded that the mean knowledge score of family members regarding basic management of cerebral palsy children were inadequate in the pre test. The planned teaching programme was effective in enhancing the knowledge and found to be significant in all the aspects of management of cerebral palsy children under study.

6. Limitations

- 1) The study was conducted for the representative group of the whole population in a setting; hence generalization is limited to the population of Pune special need schools.
- 2) Extraneous variables like age, marital status were beyond the investigator's control.
- 3) The study did not have a control group hence the results of the study must be generalized with caution.

7. Future Scope

Nursing Education

The nursing books should have health information on cerebral palsy. Post graduate nurses can develop module on home management of cerebral palsy by family members.

Nursing Practice

Clinically nurses can have specialization in care of cerebral palsy children. Where they will be involved in holistic care of the child and teach family members about various methods as well.

Nursing Administration

Administration can develop information booklet for the parents and family members focusing on clearing the doubts about the management of C.P. Plan of care can also be discussed by the administrator.

Nursing Research

There is a need of extensive and intensive research in this area, so that strategies for educating nurses on "care of cerebral palsy children" can be developed. The nurses should conduct research on various aspects of cerebral palsy and its prevention aspects, which provides more scientific data and adds more scientific body of information to the nursing profession. Innovative methods and techniques of teaching and learning have to be implemented in education

research as well as clinical research, which is a challenging task in the era of improved science and technology.

References

- [1] Dorothy Marlow R. Barbara A Redding: A Text book of pediatrics nursing, 6th edition, Philadelphia, W. B. Saunders company 1989, Page No. 800-853.
- [2] Christine Thorogood, MD staff physician, Department of Physical Medicine and Rehabilitation and Pediatrics. Last updated: July 15, 2005.
- [3] SurajGupte. The short text book of pediatrics 9th edition, New Delhi, JayPee Brothers Medical publishers, 2001, Page No-359.
- [4] Editorial in 'Science Daily' July 8, 2007.
- [5] Sarah Winter, Andrew Autry *et al* Trends in the Prevalence of cerebral palsy in a Population-Based study. Pediatrics Vol. 110 No. 6 December 2002, pp. 1200-1225.
- [6] Vargus-Adams J. Health related quality of life in childhood cerebral palsy. Arch phys med rehabil. 2005 May; 86(5):900-5.
- [7] Powell L, Barlow J, Cheshire A. The training and support programme for parents of children with cerebral palsy: a process evaluation. Complement Ther Clin Pract. 2006 Aug; 12(3):190-9. Epub 2006 Jun 5.
- [8] Parks J, Donnelly M, *et al* Use of Physiotherapy and alternatives by children with cerebral palsy: a population study. Child Care HealthDev. 2002 Nov; 28(6):469-77.
- [9] The Health and well-being of care givers of children with cerebral palsy. Pediatrics. 2005.