



EFFECTIVENESS OF NURSING INTERVENTION ON PRACTICE OF FAMILY CAREGIVERS OF PATIENTS WITH PARAPLEGIA

Nursing

Dr. Liny Joseph

Assistant professor, Govt. College of Nursing, Kottayam-8, Kerala, India.

Dr. C. Kanniammal*

Dean, SRM College of Nursing, SRM University, Kancheeppuram, Tamil Nadu

*Corresponding Author

ABSTRACT

Paraplegia compromises the life of the individual as well as the family. While the entire family is affected by its occurrence, it is one of its members known as the family caregiver who assumes responsibility for the care of the individual and his needs. The planning, implementation and evaluation of educational intervention for family caregivers regarding appropriate ways to perform care and adaptation to the environment falls under the nurse's responsibility. The present study focussed on the effectiveness of nursing intervention on practice of family caregivers of patients with paraplegia. The research design adopted in the study was quasi experimental pretest post test control group design and was conducted in physical medicine and rehabilitation wards. The sample consisted of 80 family caregivers who satisfy the inclusion criteria. Nursing intervention consisted of the structured, individual patient and caregiver education of 3 sessions of 45 minutes duration using power point slides on exercises, nutrition, skin care, sexual functioning, psychological aspects, bladder training, bowel training, demonstration and return demonstration of exercises and provision of an information booklet describing the interventions to be followed by the patients and family caregivers. Post test was conducted on 25th day and 90th day. The effect of intervention was found to be significant which indicates that there exists a significant difference in practice scores of family caregivers of patients with paraplegia.

KEYWORDS

Nursing Intervention, Practice, Paraplegia

INTRODUCTION

Paraplegia compromises the life of the individual as well as the family. While the entire family is affected by its occurrence, it is one of its members known as the family caregiver who assumes responsibility for the care of the individual and his needs. Family caregivers are often responsible for providing significant support to relatives who require care at home. However, evidence suggests that family caregivers have limited information, resources or support to equip themselves for such a role. Furthermore, family care giving can be associated with negative physical and psychosocial outcomes. The contributions of family caregivers should be recognized and interventions should be tailored not only toward the needs of the care recipients but also to the needs of the family caregivers.¹

The treatment and rehabilitation period is long, expensive and exhausting in paraplegia. Whether complete or incomplete, spinal injury rehabilitation is a long process that requires patience and motivation of the patient and relatives.² Education during rehabilitation may help with the attainment of effective problem-solving abilities, or at least provide the patient with the factual knowledge. Providing education about bladder and bowel management and skin customarily falls within the nursing domain while patients with paraplegia are in the acute rehabilitation setting, and there is evidence that the education that rehabilitation nurses provide focus on these topics. The planning, implementation and evaluation of educational intervention for family caregivers regarding appropriate ways to perform care and adaptation to the environment falls under the nurse's responsibility.^{3,4}

OBJECTIVES OF THE STUDY

1. To evaluate the effectiveness of nursing intervention on practices of family caregivers of patients with paraplegia
2. To determine the association between practices of family caregivers and selected socio demographic variables

MATERIALS AND METHODS

A quantitative research approach was adopted in the present study. The research design adopted in the study was quasi experimental pretest post test control group design and was conducted in physical medicine and rehabilitation wards of Government Medical Colleges, Kottayam and Thiruvananthapuram. The subjects were selected through non probability purposive sampling technique. The sample consisted of 80 family caregivers who satisfy the inclusion criteria. Among the 80 family caregivers, 40 family caregivers were in the control group and 40 family caregivers were in the experimental group. Only one primary family caregiver was included in the study.

The tools used for data collection include socio demographic data

sheet of family caregivers and rating scale to assess the reported practice. Pretest done and the routine care was provided to the control group. The nursing intervention was administered to the experimental group individually on day 2, day 3 and day 4 at their bedside in physical medicine wards. Nursing intervention consisted of the structured, individual patient and caregiver education of 3 sessions of 45 minutes duration using power point slides on exercises, nutrition, skin care, sexual functioning, psychological aspects, bladder training, bowel training, demonstration and return demonstration of exercises and provision of an information booklet describing the interventions to be followed by the patients and family caregivers. Post test was conducted with the same tools on 25th day and 90th day.

RESULTS

Most of the family caregivers of patients with paraplegia (52.5% and 67.5%) both in control and experimental groups were spouses. Interestingly 30% of family caregivers in control group and 45% in experimental group were between the age group of 35 – 45 years. It is noticeable that the most of the family caregivers were females (75% and 82.5%) in both groups. Most of the participants were Hindus (60% and 65%) in control and experimental group. Nearly half of the family caregivers in control and experimental groups (42.5% and 50% respectively) were with high school education. Most of the family caregivers in both groups (65% and 92.5%) reported that they were unemployed. Nearly half of the family caregivers in control and experimental group (50% and 47.5%) reported that their family monthly income was between Rs 5001 – 10,000. ² values were calculated and was not significant at 0.05. Hence it is inferred that the groups were not homogenous in terms of socio-demographic variables.

Table 1

Comparison of practice scores of family caregivers of patients with paraplegia in control and experimental group

n=80

Practice		Mean	SD	t	p
Pretest	Control	39.2	6	0.57	0.573
	Experimental	39.9	5.5		
Post test1	Control	39.6	5.8	7.29**	p<0.01
	Experimental	47.6	3.7		

** p<0.01

Results of the comparison of practice scores in pretest of family caregivers of patients with paraplegia between control and experimental group show that the t value (0.57) is not significant for the

control group (39.2 ± 6) and experimental group (39.9 ± 5.5). Hence both groups were comparable. The mean post test1 practice score in control and experimental group was 39.6 and 47.6 respectively. The t value obtained was $t=7.29$, which was significant at 0.01 level.

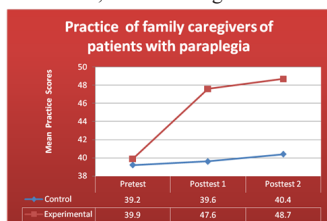


Figure 1: Comparison of mean practice scores of family caregivers of patients with paraplegia in different time intervals among control and experimental group

Table 2: Repeated measures of ANOVA of practice of family caregivers of patients with paraplegia in experimental group
n = 40

Group	Mean	SD	F	p
Pretest	39.9	5.5		
Post test 1	47.3	3.7	148.3**	p < 0.01
Post test 2	48.7	3.8		

** p < 0.01

The results show that practice scores of family caregivers of patients with paraplegia in experimental group were 39.9 ± 5.5 in pretest, 47.6 ± 3.7 in post test 1 and 48.7 ± 3.8 in post test 2. The obtained F value was significant at 0.01 level. This shows that there was a statistically significant difference in the pretest and post test practice scores of family caregivers of patients with paraplegia in experimental group. It confirms that the nursing intervention was effective in improving the attitude scores of family caregivers of patients with paraplegia. The least significant difference test for pair wise comparison yields a significant difference at 0.05 level between pretest and post test attitude score of family caregivers of patients in experimental group.

Table 3: Association between practice of family caregivers of patients with paraplegia and selected socio-demographic variables
n = 80

Variables	df	χ^2	p
Relationship	2	0.31	0.856
Age	3	7.44	0.059
Gender	1	0.2	0.657
Education	2	0.4	0.817

Chi square calculated for finding the association between practice and selected socio demographic variables is not significant at 0.05 level of significance. It is interpreted that none of the selected socio-demographic variables got association with practice of family caregivers of patients with paraplegia.

DISCUSSION

The present study was supported by a study in which the objective was to evaluate self efficacy enhancement programme on prevention of pressure ulcer in spinal cord injury. Results showed that the experimental group showed a significantly greater improvement in self care knowledge, self efficacy and self care behaviours for pressure ulcer prevention than the control group. The self efficacy enhancement programme enabled patients with spinal injury to engage in continued self care behaviours and helped them to improve their knowledge and self efficacy concerning pressure ulcer prevention.⁵

Another study on the use of a demand video to provide patient education in spinal injury reports that ongoing lifetime video education is effective in changing behaviour related to high risk complications for persons with spinal trauma.⁶

Education provided by the nursing staff is assumed to be important for paraplegic patients to understand their condition and acquire the skills necessary for functioning after discharge from rehabilitation wards. Despite the overall lack of experimental research with caregivers, there is some evidence that interventions designed to improve specific care giving tasks are helpful. The majority of intervention studies for

caregivers have utilized a psycho-educational intervention. That is, the intervention emphasizes both the provision of information and a psychological approach to improve quality of life.

REFERENCES

- Gajraj-Singh P. Psychological impact and the burden of caregiving for persons with spinal cord injury (SCI) living in the community in Fiji. *Spinal Cord*. 2011 Aug;49(8):928-34. doi: 10.1038/sc.2011.15. Epub 2011 Mar 8.
- Nas K, Yazmalar L, Şah V, Aydın A, Öneş K. Rehabilitation of spinal cord injuries. *World J Orthop*. 2015 Jan 18;6(1):8-16. doi: 10.5312/wjo.v6.i1.8.
- Rundquist J, Gassaway J, Bailey J, Lingefelt P, Reyes I, Thomas J. Nursing bedside education and care management time during inpatient spinal cord rehabilitation. *J Spinal Cord Med* 2011; 34(2):205-15.
- Rabeh SAN, Caliri MHL. Capacidade Funcional em indivíduos com lesão de medula espinal. *Acta Paul Enferm*. 2010;23(3):321-7.
- Kim JY, Cho E. Evaluation of a self efficacy enhancement programme to prevent pressure ulcers in patients with a SCI. *Jpn J Nurs Sci*. 2017 Jan; 14(1): 76-86
- Jeanne Hoffman, Cynthia Salzman, Chris Garbaccio, Stephen PB, Deborah Crane, Charles Bombardier. Use of on-demand video to provide patient education on spinal cord injury. *The Journal of Spinal Cord Medicine* 2011 VOL. 34 NO. 4