# International Journal of Nursing and Health Sciences

ISSN Print: 2664-9187 ISSN Online: 2664-9195 Impact Factor: RJIF 5.42 IJNHS 2024; 6(1): 19-22 www.nursingjournals.net Received: 17-11-2023 Accepted: 23-12-2023

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# Assessment of knowledge regarding care of patient with cerebrovascular accident among care givers using structured teaching programme

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#### DOI: https://doi.org/10.33545/26649187.2024.v6.i1a.56

#### Abstract

**Background:** The present study was conducted to associate the pre- test and post- test level of knowledge regarding care of patient with cerebrovascular accident among care givers with their selected demographic variable using structured teaching programme.

**Materials & Methods:** Of 30 multiple choice questions related to general information about cerebrovascular accident knowledge regarding physiological aspect of care and knowledge regarding psychological aspect of care was admitted to caregivers of patients with CVA.

**Results:** The majority of the caregivers 10 (33.3%) were in the age between 41-50 years, 10 (33.3%) were between 31-40 years, 5 (16.7%) were between 21-30 years and 5 (16.7%) were in the age group of above 50 years. 16 (53.3%) were female and 14 (46.7%) patients were male. The majority 12 (40%) were spouse, 10 (33.3%) were children and 8 (26.7%) were others. The majority 19 (63.3%) were giving care for less than 6 months and 11(36.7%) more than 6 months. The majority 14 (46.7) were got secondary education, 9 (30%) were primary educated and 4 (13.3%) were graduated and 3 (10%) were illiterate. The majority of the caregivers 22 (73.3%) were employed and 8 (26.7%) were unemployed.18 (60%) were less than Rs.10, 000, 11 (36.7%) were getting Rs.10,001 to Rs.20,000 and 1 (3.5%) was getting above Rs. 20,000. The majority of caregivers 26 (86.7) were married and 4 (13.3%) were unmarried.

**Conclusion:** Structured teaching program would motivate the care givers and help them to acquire knowledge regarding care of the patient with cerebrovascular accident. Therefore, structured teaching program was very important to provide quality-nursing care which helps to meet the needs of the patients for their well-being.

Keywords: Cerebrovascular accident, nursing care, education

#### Introduction

Cerebrovascular accident is a life-changing event that affects not only the person who may be disabled, but their family and caregivers. Utility analyses show that a major stroke is viewed by more than half of those at risk as being worse than death <sup>[1]</sup>. Family caregivers and friends play a critical role in the recovery from CVA, particularly as length of stay in hospitals and rehabilitation settings continue to decrease. CVA recovery continues for at least two years after CVA onset, so most of the support during this period comes from informal sources including friends and family members <sup>[2]</sup>. Providing care for a CVA patient can be an extremely rewarding experience. At the same time, it can be very stressful and frustrating to be suddenly thrust into the position of caregiver with little or no warning. It is crucial therefore, to remember to cater to their own needs, in addition to those of the patient. Some of those needs may include the need for information, the need for skills in the physical aspects of care and the need for support in the "case management" aspects of care <sup>[3]</sup>. In terms of emotional reactions, caregivers often feel one or more of the following: anxiety, guilt, depression, frustration, resentment, impatience and fear. Fear that a CVA may happen again, fear that the CVA survivor may be unable to accept the disabilities, fear that the survivor may require nursing home placement, fear that the caregiver may make mistakes and fear that families and friends will abandon them. Coping with these reactions is paramount to a healthier caregiver and ultimately, to a healthier patient <sup>[4]</sup>. To help informal care providers assume the caregiver role, nurses must have an understanding of the common needs and

#### experiences of caregivers of CVA patients <sup>[5]</sup>.

By more fully understanding the caregiving experience from the perspectives of actual caregivers, nurses can help potential informal caregivers become more competent in the caregiving role and promote optimum outcomes for both CVA patient and caregivers <sup>[6]</sup>. The present study was conducted to associate the pre- test and post- test level of knowledge regarding care of patient with cerebrovascular accident among care givers with their selected demographic variable using structured teaching programme.

# **Materials and Methods**

The present study consisted of 30 caregivers of patient with cerebrovascular accident of both genders. All care givers gave their written consent to participate in the study. Inclusion criteria was the caregivers within the age group of 21-60 years, care givers who were willing to participate in

this study and care givers who understand Tamil or English. Exclusion criteria was caregivers of patients with other neurological abnormalities, and care givers who were deaf and dumb. Data such as name, age, gender etc. was recorded. It consists of 30 multiple choice questions related to general information about cerebrovascular accident knowledge regarding physiological aspect of care and knowledge regarding psychological aspect of care. Each correct answer carries one mark. The total score was 30 marks. Scoring interpretation was >75% = adequate knowledge, 51-75% = moderately adequate knowledge, and  $\leq$ 50%= inadequate knowledge. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

# Results

**Table 1:** Frequency and percentage distribution of demographic variables of caregivers of patient

Demographic variables	Frequency	Percentage						
Age								
21-30 years	5	16.7						
31-40 years	10	33.3						
41-50 years	10	33.3						
>50 years	5	16.7						
Sex								
Male	14	46.7						
Female	16	53.3						
Relationship with the patient								
Spouse	12	40.0						
Children	10	33.3						
Others	8	26.7						
Duration of Caregiving								
>6 months	11	36.7						
$\leq 6$ months	19	63.3						
	Education							
Illiterate	3	10.0						
Primary Education	9	30.0						
Secondary Education	14	46.7						
Graduate	4	13.3						
	Occupation							
Employed	22	73.3						
Unemployed	8	26.7						
	Income							
<rs.10,000< td=""><td>18</td><td>60.0</td></rs.10,000<>	18	60.0						
Rs.10,001-Rs.20,000	11	36.7						
>Rs.20,000	1	3.3						
	Marital Status							
Married	26	86.7						
Unmarried	4	13.3						

Table 1 shows that with respect to age, the majority of the caregivers 10 (33.3%) were in the age between 41-50 years, 10 (33.3%) were between 31-40 years, 5 (16.7%) were between 21-30 years and 5 (16.7%) were in the age group of above 50 years. With respect to the gender, the majority of the patients 16 (53.3%) were female and 14 (46.7%) patients were male. In regard to caregivers' relationship with the patient, the majority 12 (40%) were spouse, 10 (33.3%) were children and 8 (26.7%) were others. Considering duration of care giving, the majority 19 (63.3%) were than 6 months and 11(36.7\%) more than 6

months. With respect to education, the majority 14 (46.7) were got secondary education, 9 (30%) were primary educated and 4 (13.3%) were graduated and 3 (10%) were illiterate. In account with occupation, the majority of the caregivers 22 (73.3%) were employed and 8 (26.7%) were unemployed. Regarding income of the caregivers, 18 (60%) were less than Rs.10,000, 11 (36.7%) were getting Rs.10,001 to Rs.20,000 and 1 (3.5%) was getting above Rs. 20,000. With regard to marital status, the majority of caregivers 26 (86.7) were married and 4 (13.3%) were unmarried.

Table 2: Association betweer	pre-test level of knowledge	regarding care of patient amo	ong caregivers with the	ir demographic variables
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	Pretest level of knowledge					
Demographic variables	Inadequate		Moderate/ Adequate		Pearson chi square test	
	n	%	n	%		
<40 yrs.	11	73.3%	4	26.7%	$\chi^2=0.83$ df=1NS	
>40 yrs.	13	86.7%	2	13.3%		
Sex	Sex					
Male	10	71.4%	4	28.6%	$\chi_{2}=1.21$	
Female	14	87.5%	2	12.5%	di–1145	
	Relationship with t	he patient			- χ2=0.38	
Spouse/children	17	77.3%	5	22.7%		
Others	7	87.5%	1	12.5%	di=11NS	
	Duration of Car	regiving			$-\chi^{2=1.29}_{df=1NS}$	
>6 months	10	90.9%	1	9.1%		
<6 months	14	73.7%	5	26.3%	di=11NS	
	Education	n			2 1 70	
Primary Education	11	91.7%	1	8.3%	$\chi^{2=1.70}$ df=1NS	
Secondary Education / Graduate	13	72.2%	5	27.8%		
Employed	18	81.8%	4	18.2%	$\chi^2=0.17$ df=1NS	
Unemployed	6	75.0%	2	25.0%		
Income					2.0.21	
<rs.10,000< td=""><td>15</td><td>83.3%</td><td>3</td><td>16.7%</td><td colspan="2" rowspan="2"><math>\chi 2=0.51</math> df=1NS</td></rs.10,000<>	15	83.3%	3	16.7%	$\chi 2=0.51$ df=1NS	
Rs.10,001-Rs.20,000	9	75.0%	3	25.0%		
Marital Status						
Married	22	84.6%	4	15.4%	$ \chi^{2=2.60}$ df=1NS	
Unmarried	2	50.0%	2	50.0%		

Table 2 shows that there was no statistically significant association could be established with the demographic variables like age, sex, relationship with the patient and duration of care giving, education, occupation, income and marital status.

#### Discussion

Chronic diseases are diseases of long duration that is 3 months or more and generally slow progression <sup>[7]</sup>. Chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes are by far the leading cause of mortality in the world, representing 60% of all deaths <sup>[8]</sup>. Out of the 35 million people who died from chronic disease in 2015, half were under 70 and half were women. CVA was the second commonest cause of worldwide mortality in 2019 and the third commonest cause of mortality in more developed countries <sup>[9]</sup>. It was responsible for about 4.4 million deaths worldwide. In the recent estimates made in 2019, the number of deaths due to CVA reached 5.54 million worldwide, with two-thirds of these deaths occurring in less developed countries <sup>[10]</sup>. The present study was conducted to associate the pre- test and post- test level of knowledge regarding care of patient with cerebrovascular accident among care givers with their selected demographic variable using structured teaching programme.

We found that the majority of the caregivers 10 (33.3%) were in the age between 41-50 years, 10 (33.3%) were between 31-40 years, 5 (16.7%) were between 21-30 years and 5 (16.7%) were in the age group of above 50 years. 16 (53.3%) were female and 14 (46.7%) patients were male. The majority 12 (40%) were spouse, 10 (33.3%) were children and 8 (26.7%) were others. The majority 19 (63.3%) were giving care for less than 6 months and 11(36.7\%) more than 6 months. The majority 14 (46.7) were got secondary education, 9 (30%) were primary educated and 4 (13.3%) were graduated and 3 (10%) were illiterate.

The majority of the caregivers 22 (73.3%) were employed and 8 (26.7%) were unemployed.18 (60%) were less than Rs.10,000, 11 (36.7%) were getting Rs.10,001 to Rs.20,000 and 1 (3.5%) was getting above Rs. 20,000. The majority of caregivers 26 (86.7) were married and 4 (13.3%) were unmarried. Anne Jones *et al* <sup>[11]</sup> evaluated a teaching intervention regarding the knowledge and practice in positioning stroke patients among nurses. 38 stroke patients' and59 nursing staff members from 6 wards were randomly allocated to experimental or control status.

Using 2 questionnaires, the nurses knowledge of the terminology used to denote posture and of issues relating to the moving and positioning of stroke patients was assessed before, immediately after and 3 months after a package of formal teaching was implemented on the experimental wards. The results showed that immediately after teaching, nurses in the experimental group scored significantly higher than those in the control group on the terminology questionnaire (p < 0.05) and the moving and positioning questionnaire (p < 0.001). Three months later, the experimental group scored higher on the latter questionnaire only (p < 0.005). The positioning of patients in the experimental group was improved overall after the teaching (p < 0.0005) and improvements to specific parts of the body were noted.

We found that there was no statistically significant association could be established with the demographic variables like age, sex, relationship with the patient and duration of care giving, education, occupation, income and marital status. Smith. J *et al.* <sup>[12]</sup> conducted a meta- analysis to assess the effectiveness of information provision strategies in improving the outcome for stroke patients and/or their identified caregivers. Finding revealed that there were significant effects in favor of the intervention on patient knowledge caregiver knowledge, patient depression scores and one aspect of patient satisfaction.

Post-hoc subgroup analyses showed that strategies which actively involved patient and caregivers had a significantly greater effect on patient anxiety and depression than passive strategies.

The limitation of the study is the small sample size.

#### Conclusion

Authors found that structured teaching program would motivate the care givers and help them to acquire knowledge regarding care of the patient with Cerebrovascular accident. Therefore, structured teaching program was very important to provide quality-nursing care which helps to meet the needs of the patients for their wellbeing.

# **Conflict of Interest**

Not available

# **Financial Support**

Not available

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#### How to Cite This Article

Satapathy J, Hariprasad PC. Assessment of knowledge regarding care of patient with cerebrovascular accident among care givers using structured teaching programme. International Journal of Nursing and Health Sciences 2024; 6(1): 19-22.

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