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Original Article

**A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING
PROGRAMME ON KNOWLEDGE OF NURSES REGARDING CARE OF PATIENTS
WITH CVA**

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ABSTRACT

Introduction: Stroke is a major global health problem and second leading cause of death worldwide. The presence of a multi-disciplinary team with specialized knowledge, skills, and experience in stroke is important. Nurse plan an important role in caring patients with CVA.

Materials and Methods: Pre-experimental study design was used. The study was conducted at PIMS Hospital, Udaipur. Sample size was 60 nurses selected for the study using convenient sampling technique. Demographic questionnaire and Self structured knowledge questionnaire on care of patients with CVA was used to collect the data.

Results: Pre-test majority 43(71.7%) of nurses had moderate knowledge, 11(18.3%) had inadequate knowledge and 6(10%) had adequate knowledge while in post-test majority 59(98.3%) had adequate knowledge and only 1(1.7%) had moderate knowledge regarding care of patients with cerebro vascular accident. Post-test mean knowledge score 17.65 ± 1.894 was higher than the pre-test mean knowledge score 16.10 ± 5.674 with mean difference of 11.55. The mean difference was compared and tested with obtained ($t=16.13$, $p=0.001$) was statistically highly significant at $p<0.05$ level of significance.

Conclusion: Findings of the study concluded that structured teaching programme was effective in improving the knowledge of nurses regarding care of patients with CVA.

Keywords: Nurses, knowledge, care of cerebrovascular accident patients.

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INTRODUCTION:

A cerebrovascular accident otherwise known as Stroke or Brain attack occurs when the blood circulation to the brain fails. Brain cells can die from decreased blood flow and the resulting lack of oxygen leads to dysfunction of brain tissue in that area. A stroke can have an effect on many body functions, including motor activity, bladder and bowel elimination, spatial, perceptual alterations, personality, affect, sensation, swallowing and communication.¹

Stroke is also a predisposing factor for epilepsy, falls and depression in developed countries. Among stroke survivors 31% required assistance with self care, 20% require assistance with ambulation, 71% have some impairment in vocational abilities up to 7 years following the stroke and 16% are institutionalized.²

The incidence of stroke is likely to rise in the coming years due to increase in population, increase in life expectancy, rapid urbanization resulting from migration from villages to the cities, changing lifestyles involving sedentary habits, smoking, excess alcohol use and rising stress level in life.³

Stroke or cerebrovascular accidents remains to be one of the major health care problems around the World. Stroke is the second leading cause of death, responsible for 4.4 million (9%) of the total 50.5 million deaths each year. In developed countries, stroke is the first leading cause for disability, second leading cause of dementia and third leading cause of death.⁴

The number of people affected by stroke is increasing worldwide, although stroke is a complicated life-altering event for stroke survivors; it is experienced as an acute event with complex needs . Around half of stroke survivors are left dependent on others for everyday activities. A large number of stroke patients who were discharged from hospital live with long-term limitations and suffer from permanent disabilities, such as; weakness, imbalance, mental changes, immobility and dependency. As the population of elderly stroke survivors increases and the number of survivors with disability and chronic care needs grow, rehabilitation care and therapy will play an increasingly important role.⁵

Stroke survivors require skilled nursing intervention in the rehabilitation stages of recovery and for prevention of recurrence of the stroke. Recurrence of stroke happened in about one third of the stroke patients within their first five years of the stroke, adequate rehabilitation after stroke may prevent further strokes from occurring; help patients to return to work and alleviate psychological problems. Therefore, secondary prevention of stroke is essential because of the high risk of recurrent stroke, Secondary prevention measures are usually started while patients are in the hospital and are continued in outpatient and primary care settings.⁶

Stroke rehabilitation can be provided in inpatient, home, and community-based, where the rehabilitation staff nurse works and they can be found in a range of acute to subacute rehabilitation facilities. The presence of a multi-disciplinary team with specialized knowledge, skills, and experience in stroke is important. The development and delivery of stroke-specific education are therefore of vital importance to the provision of high-quality stroke care and to improve outcomes for people who have experienced stroke.⁷

Evidence-based guidelines for secondary prevention stress the benefits of a healthy lifestyle, such as dietary modification, appropriate physical activity, non-smoking, alcohol consumption. Nurses described a range of activities related to the management of patients, including liaising, organizing, mediating and planning. These activities were designed to coordinate the input of other health care professionals, to promote the well-being of patients and their families, and to enable smooth transitions of care for patients.⁸

Based on the facts and evidences the investigator felt that knowledge of nurses is necessary for caring patients with CVA. So the study aims to assess the effectiveness of structured teaching programme on knowledge of nurses regarding care of patients with CVA.

OBJECTIVES

1. To assess the pre-test and post-test level of knowledge of nurses regarding care of patients with CVA.
2. To assess the effectiveness of structured teaching programme on knowledge of

nurses regarding care of patients with CVA.

3. To find out association between pre-test and post-test level of knowledge of nurses regarding care of patients with CVA with selected demographic variables.

HYPOTHESIS

H1: There will be significant difference in pre-test and post-test knowledge score of nurses after administration of structured teaching programme regarding care of patients with CVA.

MATERIALS AND METHODS:

A Quantitative research approach with Pre-experimental study design was used in this study to accomplish the objectives of the study. The study was conducted at PIMS Hospital, Udaipur. Total sample of 60 nurses were selected for the study using convenient sampling technique, who fulfilled inclusion criteria of the study. Demographic questionnaire and Self structured knowledge questionnaire on care of patients with CVA was used to collect the data. Structured teaching programme was administered to nurses on care of patients

with CVA and after 7 days post-test data was collected. The data was analyzed using descriptive and inferential statistics.

RESULTS:

Table 1: Frequency and Percentage Distribution of Demographic Variables.

N=60

S. No	Demographic Variables	frequency	percentage
1	Age in years		
	a. Below 25 years	40	66.7
		8	13.3
	b. 25-30 years	7	11.7
	c. 30-35 years	3	5
	d. 35-40 years	2	3.3
	e. Above 40 years		
2	Gender		
	a. Male	20	33.3
	b. Female	40	66.7
3	Educational qualification	54	90
	a. GNM	6	10
	b. B. Sc Nursing		
4	Clinical experience		
	a. 0-5 years	44	73.4
	b. 5-10 years	12	20
	c. 10-15 years	2	3.3
	d. Above 15 years	2	3.3
5	Training attended on CVA	2	3.3
	a. Yes	58	96.7
	b. No		
6	Experience in ICU		
	a. 0-12 months	25	41.7
	b. 1-5 years	17	28.3
	c. 6-10 years	11	18.3
	d. Above 10	7	11.7
7	Previous experience in caring patient with CVA		
	a. Yes	23	38.3
	b. No	37	61.7

Demographic data shows that according to age of nurses majority 40(66.7%) were in below 25 years, 8(13.3%) were in 25-30 years, 7(11.7%) were in 30-35 years, 3(5%) were in 35-40 years and 2(3.3%) were in above 40 years. With regard to gender, maximum 40(66,7%) were male nurses and 20(33.3%) were female nurses. As per educational qualification, 54(90%) had completed GNM and only 6(10%) had completed B. Sc Nursing. According to clinical experience, 44(73.4%) had 0-5 years of experience, 12(20%) had 5-10 years, 2(3.3%) had 10-15 years and 2(3.3%) had above 15 years of experience. With regard to training attended on CVA, 58(96.7%) had not attended any training on CVA and only 2(3.3%) of nurses had attended training on CVA. As per nurses experience in ICU, 25(41.7%) had 0-12 months experience, 17(28.3%) had 1-5 years, 11(18.3%) had 6-10 years and 0n17 7(11.7%) had above 10 years of experience. 23(38.3%) of nurses were having previous experience of caring patient with CVA and 37(61.7%) had no previous experience of caring patient with CVA.

Table 2: Pre-test and post-test level of knowledge of nurses regarding care of patients with cerebrovascular accident

N=60

Level of Knowledge	Pre-Test		Post-Test	
	f	%	f	%
Adequate knowledge	6	10	59	98.3
Moderate knowledge	43	71.7	1	1.7
Inadequate knowledge	11	18.3	0	0

Table 2 depicts that in pre-test majority 43(71.7%) of nurses had moderate knowledge, 11(18.3%) had inadequate knowledge and 6(10%) had adequate knowledge while in post-test majority 59(98.3%) had adequate knowledge and only 1(1.7%) had moderate knowledge regarding care of patients with cerebro vascular accident.

Figure 1: Distribution of level of knowledge of nurses regarding care of patients with cerebrovascular accident

Table 3: Effectiveness of structured teaching programme on knowledge of nurses regarding care of patients with cerebrovascular accident

N=60

Level of Knowledge	Mean	SD	Mean D	t value	df	P value
Pre-test	16.10	5.674	11.55	16.13	59	0.001*
Post-test	17.65	1.894				

*P<0.05 level of significance.

Table 3 depicts that post-test mean knowledge score 17.65 ± 1.894 was higher

than the pre-test mean knowledge score 16.10 ± 5.674 with mean difference of 11.55. The mean difference was compared and tested with obtained ($t=16.13$, $p=0.001$) was statistically highly significant at $p<0.05$ level of significance. Findings revealed that structured teaching programme was effective in improving the knowledge of nurses regarding care of patients with CVA.

2. Distribution of mean score and SD of pre-test and post-test knowledge of nurses regarding care of patients with cerebrovascular accident.

Table 4. Association between pre-test level of knowledge of nurses regarding care of patients with cerebrovascular accident and selected demographic variables

N=60

Demographic Variables	Adequate	Moderate	Inadequate	χ^2 value df p value
Age in years				
a. Below 25 years	9	26	5	5.465
b. 25-30 years	2	6	0	8
c. 30-35 years	0	6	1	0.707 ^{NS}
d. 35-40 years	0	3	0	
e. Above 40 years	0	2	0	
Gender				
a. Male	5	32	3	4.140
b. Female	6	11	3	2
Educational qualification				18.84
a. GNM	6	42	6	2
b. B.Sc	5	1	0	0.001*
Clinical experience				
a. 0-5 years	9	29	6	5.633
b. 5-10 years	1	11	0	6
c. 10-15 years	1	1	0	0.465 ^{NS}
d. Above 15 years	0	2	0	
Training attended on CVA				
a. Yes	2	0	0	9.216
b. No	9	43	6	2
Experience in ICU				
a. 0-12 months	4	18	3	7.445
b. 1-5 years	1	13	3	6
c. 6-10 years	3	8	0	0.282 ^{NS}
d. Above 10	3	4	0	
Previous experience in caring patient with CVA				
a. Yes	5	17	1	1.454
b. No	6	26	5	2
				0.483 ^{NS}

***p value < 0.05 level of significance**
NS-Non Significant

Table 4 illustrates the association between pre-test level of knowledge of nurses regarding care of patients with cerebrovascular accident and selected demographic variables. The chi-square values showed that educational qualification ($\chi^2=18.84$) and training attended on CVA ($\chi^2=9.216$) was found statistically significant association at $p<0.05$ level. The other demographic variables age ($\chi^2=5.465$), gender ($\chi^2=4.140$), clinical experience ($\chi^2=5.633$), experience in ICU ($\chi^2=7.445$) and previous experience in caring patient with CVA ($\chi^2=1.454$) were found statistically non significant at $p<0.05$ level.

Table 5. Association between post-test level of knowledge of nurses regarding care of patients with cerebrovascular accident and selected demographic variables

N=60

Demographic Variables	N	Mean	SD	F/t value	p value
Age in years					
a. Below 25 years	40	27.78	1.56	0.730	0.575 ^{NS}
b. 25-30 years	8	27.0	3.16		
c. 30-35 years	7	28.0	1.92		
d. 35-40 years	3	28.0	2.64		
e. Above 40 years	2	26.0	0		
Gender					
a. Male	40	27.72	2.06	0.431	0.668 ^{NS}
b. Female	20	27.50	1.53		
Educational qualification	54	27.69	1.91	0.429	0.670 ^{NS}
a. GNM	6	27.33	1.86		
b. B. Sc Nursing					
Clinical experience					
a. 0-5 years	44	27.64	1.91	0.357	0.784 ^{NS}
b. 5-10 years	12	27.50	1.78		
c. 10-15 years	2	27.50	3.53		
d. Above 15 years	2	29.0	1.41		
Training attended on CVA					
a. Yes	2	27.50	2.12	0.113	0.910 ^{NS}
b. No	58	27.66	1.90		
Experience in ICU					
a. 0-12 months	25	27.88	1.56	4.509	0.007*
b. 1-5 years	17	28.41	1.27		
c. 6-10 years	11	26.0	2.64		
d. Above 10	7	27.57	1.61		
Previous experience in caring patient with CVA					
a. Yes	23	27.78	1.67	0.425	0.673 ^{NS}
b. No	37	27.57	2.03		

***p value < 0.05 level of significance**

NS-Non Significant

Table 5 illustrates the association between post-test level of knowledge of nurses regarding care of patients with cerebrovascular accident and selected demographic variables. Findings revealed that experience in ICU (**F=4.509**) was found

statistically significant association at $p < 0.05$ level. The other demographic variables age ($F=0.730$), gender ($t=0.431$), educational qualification ($t=0.429$), clinical experience ($F=0.357$), training attended on CVA ($t=0.113$) and previous experience in caring patient with CVA ($t=0.425$) were found statistically non significant at $p < 0.05$ level.

CONCLUSION:

The study findings showed that majority of nurses in pre-test had moderate knowledge while in post-test maximum had good knowledge which evidences that structured teaching programme was effective in improving the knowledge of nurses regarding care of patients with CVA.

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