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EFFECT OF NEURO REHABILITATION PROGRAMME (NRP) ON FUNCTIONAL DISABILITY IN PATIENTS AFTER CEREBRO VASCULAR ACCIDENT ATTACK

Nursing

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ABSTRACT

An experimental study was conducted to find out effect of neuro rehabilitation programme (NRP) on functional disability in patients after cerebro vascular accident attack one hundred fifty patients with stroke was enclosed within the study people who met with inclusion criteria. Tool used for the study are; Demographic details of the patient with the stroke and Functional Independence Measure. Functional Independence Measure scale was used to assess physical and psychological feature incapacity. The study revealed that there is significant effect of NRP on functional independence among stroke patients.

KEYWORDS

Stroke, Neuro rehabilitation program, functional independence.

INTRODUCTION

The economic burden caused by stroke has not been explored. However, Globallly it is calculable to own lost 8.7 billion 1998 international greenbacks in 2005 because of Coronary Heart Disease (CHD), stroke and polygenic disorder, this will be to extend to fifty four billion, 1998 international greenbacks by 2015 and India's growth of gross domestic product (GDP) is calculable to fall by 1 Chronicles owing to the combined economic impact of CHD, stroke, and polygenic disorder (WHO, 2005).

Functional disability limits somebody's ability to perform physical activities, have a major sensory impairment or psychopathy, want long-run care, use helpful devices or technology and have biological process delays. -- World Health Organization (WHO)

Based on the aforementioned definition, it is crucial to assess functional independence level in terms of functional in post stroke patients. This would be helpful to them in terms of moving forward in the rehabilitation program. Assessing stroke patient's functional independence level is the starting point of applying nursing therapeutics. As a result, it is mandatory to assess stroke patient's self.efficacy level as an infrastructure of the rehabilitation journey.

Being the patients official advocate, nurses can play a pivotal role with stroke patients by facilitating personal readjustment aiming at regaining full independence. However, under the current critical circumstances of India, this would be challenging. Therefore, the WHO is invited to boost its valuable support to Indian nurses through mentoring and advocating nursing role in the multidisciplinary team of stroke patient care.

MATERIALS AND METHODS

The patient with stroke was indiscriminately chooses for each experimental and control group. Entirely one hundred fifty patients with stroke was enclosed within the study people who met with inclusion criteria. Formal permission was obtained from the Director of hospital Dr.Fernandas. Participants and additionally their relations were familiar concerning the study and the knowledge to be collected from them. Tool used for the study are; Demographic details of the patient with the stroke and Functional Independence Measure. Functional Independence Measure scale was used to assess physical and psychological feature incapacity. The tool was classified into six aspects such as; Selfcare aspects of the patient with stroke, Muscular management aspects of the patient with stroke, ttransferring aspects of the patient with stroke, locomoting aspects of the patient with stroke, communication aspects of the patient with stroke and Social cognition aspects of the patient with stroke. Subjects were given assurance for keeping confidentiality about the data being collected. Rehabilitation program was tutored to the patient exploitation demonstration and additionally the teaching module relating to the exercises. Every patient with stroke was assessed for 3 months. The study was conducted between the time period of July 2015 to June 2017.

RESULTS

Demographic variables of study subjects.

- Regarding the gender of subject in the experimental group, 48(64%) were males,(27(36%) were females, and in the control group 46(61.33%) were males and 29(38.67%) were females. Based on the occupational status in the experimental group,25 (33.33%) were the heavy workers, 24(32%) were the moderate workers, 14(18.67%) were the sedentary workers, 12(16%) were the heavy workers, 26(34.67%) were the moderate workers,13(17.33%) were the sedentary workers,13(17.33%) were then employed.
- With regard to duration of illness in the experimental group 34(45.33%) were affected since one month, 32(42.67%) were affected with stroke for a month to year, where as in the control group, 36(48%) were affected since one month, 31(41.33%) were 31(41.33%) were affected with stroke for a month to year . Based on the habit of smoking in the experimental group,50(66.67%) were have no habit of smoking 5(6.67%) we have habit of smoking since few months, 20 (26.66%) were having smoking habit for more than a year, were as in the control group,48(64%) were have no habit of smoking, 8(10.67%) were having habit of smoking since few months, and 19(25.33%) were have the habit of smoking for more than a year.
- In relation to the habit of alcoholism in the experimental group,50(66.67%) were have no habit of alcoholism, where as in the control group,48(64%) were have no habit of alcoholism. According to the associated illness in the experimental group,22(29.33%) were have diabetes mellitus,16(21.34%) have hypertension 4(5.33%) have coronary arterydisease,33(44%) have no associated illness where as in the control group,22(29.33%) have diabetes mellitus 17(22.67%) have hypentension,5(6.67%) have coronary artery disease, 31(41.33%) have no associated illness, also no one from experimental and control group have sickle cell disease and other illness.

Table 1: Comparison of mean scores, t value and p value across time intervals

Post Test	Experimental Group		Control Group		Mean difference	't' test	P-value
	Mean	SD	Mean	SD			
8th week	42.18	4.36	27.13	3.81	15.05	24.83	0.000 significant
10th week	67.52	4.98	31.62	4.03	35.90	47.86	0.000 highly significant
12th week	98.36	5.36	36.32	3.92	62.04	81.36	0.000 Highly significant

Table 1 reveals that pre test mean score in the experimental group was 23.72 ± 3.36 and in the post test mean score for the 8th, 10th and 12th week in experimental group were 42.18 ± 4.36, 67.52 ± 4.98 and 98.36 ± 5.36 .The mean difference was high and statistically significant at 0.001 level.

This was due to the neuro-rehabilitation programme. In the control group, the pretest mean score was 24.06 ± 3.52 and in the post test mean score for the assessment on 8th, 10th and 12th week was 27.13 ± 3.81, 31.62±4.03, 36.32±3.92. The mean difference was high and statistically significant at 0.001 level. This is due to the normal routine treatment measures.

Table 2: Effect of NRP on functional Independence

Sl.No	Functional Independence measures	Experimental Group		Control group		Mean difference	't' test p< 0.001	P-value
		Mean	SD	Mean	SD			
1	Eating	5.68	1.78	2.36	1.08	3.32	15.09	0.630
2	Grooming	5.82	1.93	2.18	1.16	3.64	15.16	0.000
3	Bathing	5.93	1.82	2.56	1.23	3.37	15.33	0.000
4	Dressing – upper body	4.62	1.48	2.10	1.02	2.52	10.52	0.000
5	Dressing -Lower body	4.87	1.51	1.88	.98	2.99	11.96	0.000
6	Toileting	4.72	1.63	1.62	.83	3.10	13.92	0.000
7	Bladder management	5.21	1.58	2.13	1.08	3.08	13.93	0.000
8	Bowel management	4.98	1.39	1.44	.79	3.54	14.63	0.000
9	Bed /wheel chair	5.18	1.48	1.96	.83	3.22	14.15	0.000
10	Toilet	5.24	1.13	2.18	1.13	3.06	14.22	0.00
11	Tub shower	4.98	1.79	1.64	0.96	3.34	15.10	0.000
12	Walk /wheelchair	5.39	2.02	2.32	1.33	3.07	14.38	0.000
13	Stairs	5.52	2.33	2.40	1.20	3.12	14.65	0.001
14	Comprehension	5.68	2.36	2.18	1.40	3.50	15.31	0.000
15	Expression	4.86	2.12	2.08	1.30	2.78	13.33	0.000
16	Social Interest	4.88	2.02	1.46	.72	3.42	14.68	0.001
17	Problem solving	5.18	2.32	2.36	1.20	2.82	12.10	0.000
18	Memory	4.93	1.98	1.68	1.02	23.25	14.15	0.000

Association between pretest level of functional independence measures and selected demographic variables

Association between pretest level of functional independence measures and selected demographic variables of the stroke patients such as age was χ^2 =30.69, gender was χ^2=0.72 , educational status was χ^2=5.175 occupational status was χ^2=13.08 , marital status was χ^2=3.33, dietary pattern was χ^2=14.45 religion was χ^2=3.24, duration of illness was χ^2=12.71, habit of smoking was χ^2=1.78, habit of alcoholism was χ^2=0.936,associated illness was χ^2=0.51 ,phase of attack was χ^2=0.09 body mass index was χ^2=11.45, exposure of previous surgical history was χ^2=0.53, frequency of hospitalization was χ^2=1.95 , acceptance of patient condition by family members was χ^2=0.197, life style changes in society was χ^2=0.09, interest towards rehabilitative action was χ^2=0.090, whereas variables such as age occupational status, dietary pattern, duration of illness, associated illness, body mass index, was significant and the other variables are not significant at p value less than 0.05 level. Hence there was a significant association between level of functional independence measures with demographic variables.

DISCUSSION

Study results shows that in the experimental group the post test mean score was 98.36 with standard deviation is 5.36. The mean was high for experimental group and low for the control group. During the 8th week of assessment, in the experimental group the post test mean group was 42.18 ± 4.36 and in the control group was 27.13 ± 3.8, during the 10th week of assessment, In the experimental group the post test mean group was 67.52 ± 4.98 and in the control group was 31.62 ± 4.03, during the 12th week of assessment, in the experimental group the post test mean group was 98.36 ± 5.36 and in the control group was 36.32 ± 3.92. Thus, the above observations stated that the mean difference was high and statistically significant at 5% level for 148 degree of freedom. Those distinction was due to the neuro rehabilitation programme based on functional independence measures which was effective for the patients with stroke.

These study findings ar in keeping with the results of inexperienced, Haley, Eliasziw & Hoyte (2007) who examined the appliance of neuro rehabilitation exercises, psychological feature interviewing associated stages of modification on stroke information acquisition associated ever-changing individual manner risk factors in associate degree patient clinic through the RCT during which two hundred participants were allotted to an education-counselling interview (ECI), neuro exercises for each cluster. There was a statistically important distinction between the teams from baseline (T1) to a few months (T3) in impact of the exercises through NRP ($p<0.001$).While playing the analysis for the participants in every assessments throughout the post check of initial, second and third try has given higher improvement supported the results of the study.

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