

A Study To Assess The Efficacy Of Health Empowerment Programme Among Care Givers On Management Of Patient With Cerebrovascular Accident Admitted In Medical Wards At Tertiary Care Hospital Chennai.

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Abstract

Cerebrovascular Accident is the second commonest cause of death worldwide. Cerebrovascular Accident is sudden death of brain cells due to lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery. It is the chronic disease and also a major cause of long-term disability and has potentially enormous emotional and socio economic consequences for patients, and their families. So the study was conducted to assess the effectiveness of Health empowerment programme on level of knowledge and practice regarding care of patient with CVA. The main objectives are to assess the pretest level of knowledge and practice regarding care of patient with cerebrovascular Accident, and to determine the effectiveness of Health empowerment programme on the level of knowledge and practice among care givers of patient with cerebrovascular Accident. A quantitative research approach and pre experimental, one group pre test, post test design was chosen to assess the level of knowledge and practice regarding Health empowerment programme conducted at, Government General Hospital, Chennai, caregivers of patients with cerebrovascular Accident who satisfied the inclusive criteria were selected as samples using purposive sampling technique. A health empowerment programme comprising a power point teaching, demonstration and reinforcement regarding health empowerment programme formed the intervention of the study. The pre and post-test level of knowledge and practice was assessed using structured questionnaire and observational check list respectively. The findings of the study revealed that the pre test mean score of knowledge was 6.73 with S.D of 2.11 and the post-test mean score of knowledge was 13.45 with S.D of 1.57 The calculated 't' value of 25.68 was found to be statistically highly significant.

INTRODUCTION

Health is the functional and metabolic level of efficiency of a living being. Health is defined as a state of complete physical, mental and social well-being, which is marked not only by the absence of disease or infirmity (WHO 2014). It is recognized that health is maintained and improved not only through the advancement and development of knowledge on health science, but also through the efforts and healthy lifestyle practices of the individual and society. The behaviours particularly tobacco use, eating junk foods and lack of physical activity are major contributors to the leading chronic diseases. Generally the disease which stay for more than 3 months and has slow progression referred as chronic disease. They cannot be prevented by vaccines or cured by medication. They stay life long, some chronic diseases cause disability too. Among the chronic diseases, Cerebrovascular Accident is the second leading disease. Cerebrovascular Accident is sudden loss of some brain function due to lack of oxygen to the brain cells due to impaired blood flow to the brain by blockage or rupture of an artery to the brain. CVA also referred as stroke or brain attack, (WHO 2019). The International Centre for Collaboration Research (ICCR 2020) estimates that 28.6 million individuals suffer from Cerebrovascular Accident on an annual basis worldwide. 16.2 million of individuals will have a permanent disability caused by their stroke while another 12.4 million of these individuals will die. 6.12 million Individuals suffer from Cerebrovascular Accident on an annual basis in 2 India, 1.021 million suffer from CVA in Tamilnadu about 25% die every year. South Asia

OBJECTIVES

1. To assess the pre-test level of knowledge and practice regarding care of patient with Cerebrovascular accident among care givers.
2. To assess the post-test level of knowledge and practice regarding care of patient with Cerebrovascular accident after the health empowerment programme among care givers.
3. To compare pretest and posttest level of knowledge and practice regarding the efficacy of the health empowerment Programme on Cerebrovascular Accident among care givers.

4. To find out the association between the posttest level of knowledge and practice regarding care of patient with Cerebrovascular accident among care givers and their selected demographic variable.

METHODS AND MATERIALS

Quantitative research approach was used for the study. One group pre-test and post-test design research was used for the study. The independent variable in the study was Health Empowerment Programme on Cerebrovascular Accident. The dependent variable in the study was knowledge and practice of the caregivers of patient with Cerebrovascular Accident. This study was conducted in Government General Hospital, Chennai. This is 2722 bedded Tertiary Care Hospital, which is equipped with all facilities. This hospital has all the specialty departments like General medicine, Surgery, Cardiovascular, Neurology, Nephrology, Gastroenterology, Diabetology, Hematology, Oncology, Dermatology, Rheumatology, Endocrine, Geriatrics, Critical Care and Emergency units. In General medicine department all types of patients are admitted. The monthly statistics of General Medicine department (Ward No- 113, 121,122, 123, 124, 125, 132, 134, 145) excluding IMCU and Toxicology, is 1803 patients. Among this, the average monthly statistics of patient with Cerebrovascular Accident is 812. The population consists of caregivers of patient with CVA who were admitted in medical wards in Government General Hospital, Chennai. The caregivers of patient with Cerebrovascular Accident, who fulfilled the Inclusion criteria, were selected as samples for the study. The sample size was 60 caregivers of patient with Cerebrovascular Accident. Nonprobability purposive sampling technique was used to select the samples among the population.

RESULTS:

Pretest Level Of Knowledge Score

Level of knowledge	No. of care givers	%
In adequate knowledge	50	83.33%
Moderate knowledge	10	16.67%
Adequate knowledge	0	0.00%
Total	60	100%

Table shows the care givers pre-test level of knowledge score. In Pretest, 83.33% of care givers are having in adequate knowledge and 16.67% of the m having moderate level of knowledge score and none of the m are having adequate level of knowledge score.

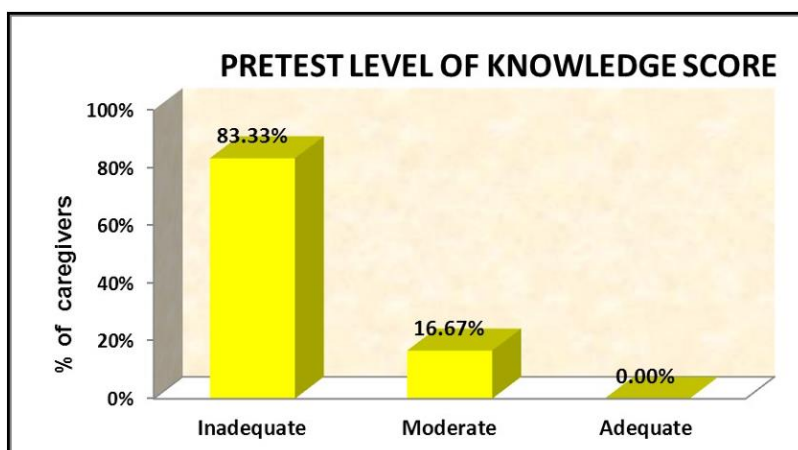


Figure Shows Bar diagram shows distribution of pre- test level of knowledge score of the study participants

KNOWLEDGE SCORE INTERPRETATION

Min=0Max=1Totalquestions=20Maximummarks=20

SNo.	Grade	Percentage	Marks
1.	In adequate knowledge	0-40%	0-8
2.	Moderate knowledge	41-70%	9-14
3.	Adequate knowledge	71-100%	15-20

EachDomainwisePretestPercentageof Practice Score Regarding Care Of Patient with Cerebro Vascular Accident amongCareGivers.

S.No	Domains	No. of questions	Min–Max score	Pretest Practice score		
				Mean	SD	% of meanscore
1	Backcare	10	0-10	3.33	1.20	33.30%
2	Positioning	10	0-10	3.09	1.18	30.90%
	Total	20	0-20	6.42	1.99	32.10%

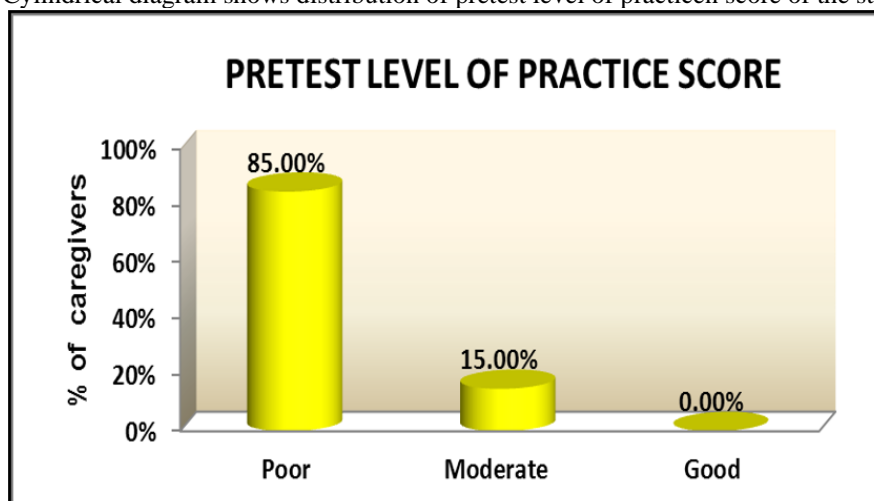
Table shows each domainwise pre-test percentage of practice score regarding care of patient with Cerebro vascular Accident among care givers. They are having maximum practice score in **Back care** (33.30%) and minimum practice score in **Positioning** (30.90%). Overall practice score is 32.10%.

PretestLevelof PracticeScore

Levelof practice	No.ofcaregivers	%
Poor	51	85.00%
Moderate	9	15.00%
Good	0	0.00%
Total	60	100%

Table shows the care givers pre-test level of practice score. In Pretest, 85.00% of care givers are having poor level practice score and 15.00% of them having moderate level of practice score and none of the m are having good level of practice score.

Figure shows Cylindrical diagram shows distribution of pretest level of practicen score of the study participants



PRACTICE SCORE INTERPRETATION

Min = 0 Max = 1 Total questions = 20 Maximum marks = 20

S.No.	Grade	Percentage	Marks
1.	Poor	0–40%	0-8
2.	Moderate	41–70%	9-14
3.	Good	71–100%	15-20

Each Domainwise Post test Percentage of Knowledge Score Regarding Care Of Patient with Cerebro Vascular Accident among Care Givers.

S.No	Domains	No. of questions	Min–Max score	Post test Knowledge score		
				Mean	SD	% of mean score
1	Concept	3	0-3	2.12	.49	70.67%
2	Nutrition counselling	3	0-3	2.07	.41	69.00%
3	Medication compliance	4	0-4	2.60	.56	65.00%
4	Maintaining personal Hygiene and positioning	4	0-4	2.57	.53	64.25%
5	Importance of exercise and physical activity	4	0-4	2.63	.64	65.75%
6	Communication	2	0-2	1.47	.68	73.50%
	Total	20	0-20	13.45	1.57	67.25%

Table shows each domainwise Post-test percentage of knowledge score regarding care of patient with Cerebro vascular Accident among care givers. They are having maximum Knowledge score about **Communication** (73.50%) and minimum knowledge score about **Maintaining personal Hygiene and positioning** (64.25%). Overall knowledge score is 67.25%

Post test Level Of Knowledge Score

Level of knowledge	No. of care givers	%
In adequate knowledge	0	0.00%
Moderate knowledge	32	53.33%
Adequate knowledge	28	46.67%
Total	60	100%

Table shows the care givers Post-test level of knowledge score. In Posttest, none of the care givers are having in adequate level of knowledge score, 53.33% of the m having moderate level of knowledge score and 46.67% of the m are having adequate level of knowledge score.

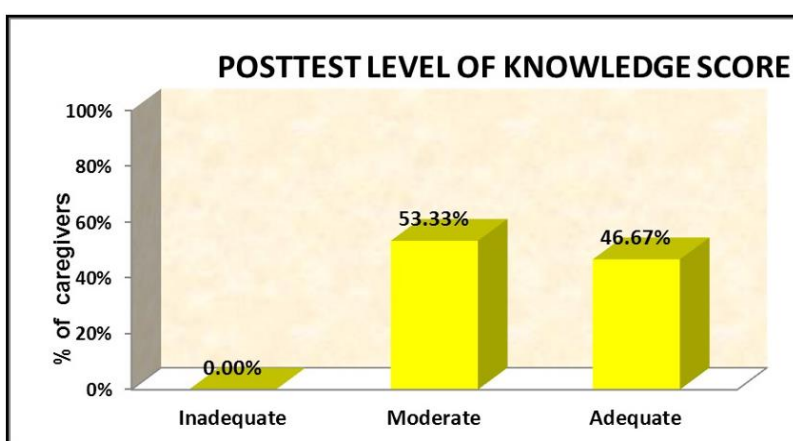


Figure shows bar diagram shows distribution of post-test level of knowledge score of the study participants

KNOWLEDGE SCORE INTERPRETATION

Min = 0 Max = 1 Total questions = 20 Maximum marks = 20

S.No.	Grade	Percentage	Marks
1.	Inadequate knowledge	0–40%	0-8
2.	Moderate knowledge	41–70%	9-14
3.	Adequate knowledge	71–100%	15-20

Each Domainwise Post test Percentage Of Practice Score Regarding Care Of Patient With Cerebro Vascular Accident

Among Care Givers.

S.No	Domains	No. of questions	Min- Max score	Post test Practice score		
				Mean	SD	% of mean score
1	Backcare	10	0-10	7.07	1.34	70.70%
2	Positioning	10	0-10	6.97	1.02	69.70%
	Total	20	0-20	14.04	1.97	70.20%

Table shows each domainwise Post-test percentage of practice score regarding care of patient with Cerebro vascular Accident among care givers. They are having maximum practice score in Back care (70.70%) and minimum practice score in Positioning (69.70%). Overall practice score is 70.20%.

Post test Level Of Practice Score

Level of practice	No. of care givers	%
Poor	0	0.00%
Moderate	27	45.00%
Good	33	55.00%
Total	60	100.00%

Table shows the care givers Post-test level of practice score. In Post test, none of the care givers are having poor level of practice score and 45.00% of the m having moderate level of practice score and 55.00% of the m are having good level of practice score.

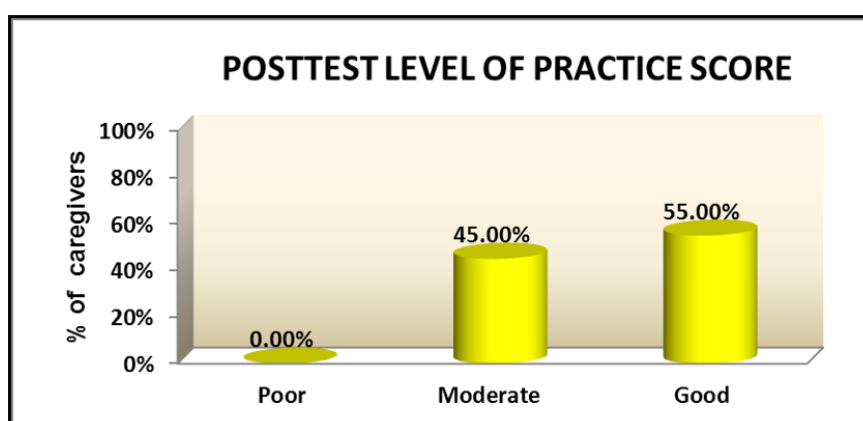


Figure shows Cylindrical diagram shows distribution of post test level of practice score of the study participants.

Comparison Of Pre-test And Post test Knowledge Score

S.No	Knowledge on	Pretest		Posttest		Mean Difference	Student's paired t-test
		Mean	SD	Mean	SD		
1	Concept	0.83	.76	2.12	.49	1.29	t=12.36 P=0.001 ***DF=59, Significant
2	Nutrition counselling	1.13	.81	2.07	.41	0.94	t=9.03 P=0.001 ***DF=59, Significant
3	Medication compliance	1.38	.61	2.60	.56	1.22	t=11.42 P=0.001 ***DF=59, Significant
4	Maintaining personal Hygiene and positioning	1.23	.89	2.57	.53	1.34	t=11.78 P=0.001 ***DF=59, Significant
5	Importance of exercise and physical activity	1.42	.91	2.63	.64	1.21	t=10.02 P=0.001 ***DF=59, Significant
6	Communication	0.73	.78	1.47	.68	0.74	t=5.55 P=0.001 ***DF=59, Significant
	Overall	6.73	2.11	13.45	1.57	6.72	t=25.68 P=0.001 ***DF=59, Significant

Table shows the comparison of pretest and post test knowledge score regarding care of patient with Cerebro vascular Accident among care givers.

Considering overall knowledge score, in pretest, care givers are having 6.73 score where as in post test they are having

13.45 score. Difference is 6.72. This difference is large and it is statistically significant difference. On an average care givers are improved their knowledge from 6.73 to 13.45 after the administration of health empowerment programme.

Box Plot Compares the care givers pre-test and post-test knowledge score very high significant at $P \leq 0.001$ Each Domainwise Pretest And Posttest Percentage Of Knowledge Score

S.No	Domains	Pretest percentage of knowledge	Posttest percentage of knowledge	% of knowledge gain
1	Concept	27.67%	70.67%	43.00%
2	Nutrition counselling	37.67%	69.00%	31.33%
3	Medication compliance	34.50%	65.00%	30.50%
4	Maintaining personal Hygiene and positioning	30.75%	64.25%	33.50%
5	Importance of exercise and physical activity	35.50%	65.75%	30.25%
6	Communication	36.50%	73.50%	37.00%
	Overall	33.65%	67.25%	33.60%

Table shows each domainwise knowledge gain score among the care givers. On an average, In pretest they are having 33.65% of knowledge score and in post test they are having 67.25% of knowledge score. Overall gain percentage of score is 33.60%.

Comparison Of Pretest And Posttest Level Of Knowledge Score

Level of knowledge	Pretest		Posttest		Generalized Mc Nemar's test
	N	%	n	%	
Inadequate knowledge	50	83.33%	0	0.00%	$\chi^2=53.90$ $P=0.001^{***}(S)$
Moderate knowledge	10	16.67%	32	53.33%	
Adequate knowledge	0	0.00%	28	46.67%	
Total	60	100%	60	100%	

Table Considering comparison of pretest and post test level of knowledge score, in pretest, 50 n care givers are having in adequate knowledge 83.33% score 0.00% score. 10 n care givers having 16.67% score, none of them have adequate knowledge, Whereas in post test none of having in adequate knowledge, 32 n care givers having moderate knowledge 53.33% score, 28 n care givers having adequate knowledge 46.67% score.

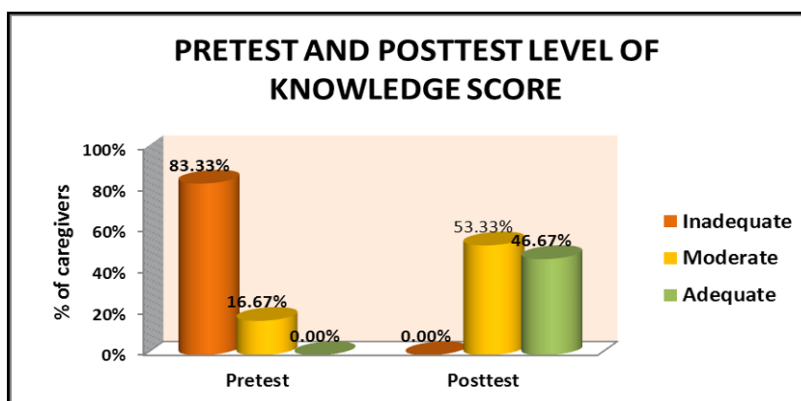


Figure shows Cylindrical diagram shows comparison of pretest and post test level of knowledge score of the study participants.

Effectiveness Health Empowerment Programme And Generalization Of Knowledge Gain Score

	Max score	Mean score	% of mean score	Mean Difference of knowledge gain score with 95% Confidence interval	Percentage Difference of knowledge gain score with 95% Confidence interval
Pretest	20	6.73	33.65%	6.72	33.60%
Posttest	20	13.45	67.25%	(6.19–7.24)	(30.95%–36.20%)

Table shows the effectiveness of health empowerment. On an average, in post test after having intervention care givers are gained 33.60% more knowledge score than pretest score. This gain shows the effectiveness of the study.

Comparison Of Pretest And Post test Practice Score

S. No	Practice on	Pretest		Posttest		Mean Difference	Student's paired t-test
		Mean	SD	Mean	SD		
1	Back care	3.33	1.20	7.07	1.34	3.74	t=22.70 P=0.001*** DF=59 , Significant
2	Positioning	3.09	1.18	6.97	1.02	3.88	t=23.08 P=0.001*** DF=59 , Significant
	Overall	6.42	1.99	14.04	1.97	7.62	t=32.19 P=0.001*** DF=59 , Significant

Table shows the comparison of pretest and post test Practice score regarding care of patient with Cerebro vascular Accident among care givers. Considering overall Practice score, in pre-test. Care givers are having 6.42 score where as in post test they are having 14.04 score. Difference is 7.62. This difference is large and it is statistically significant difference. On an average care givers are improved their Practice from 6.42 to 14.04 after the administration of health empowerment programme.

Box Plot Compares the care givers pre-test and post-test Practice score very high significant at $P \leq 0.001$.

Each Domainwise Pretest And Post test Percentage Of Practice Score

S.No	Domains	Pretest percentage of Practice	Post test percentage of Practice	% of Practice gain
1	Concept	33.30%	70.70%	37.40%
2	Nutrition counselling	30.90%	69.70%	38.80%
	Overall	32.10%	70.20%	38.10%

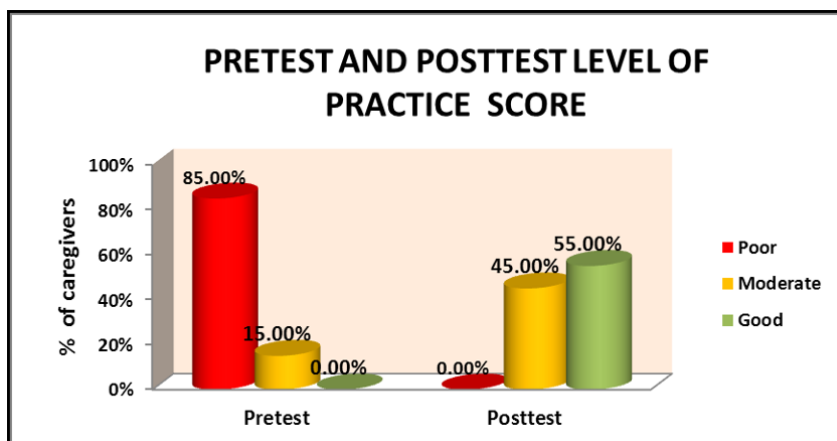
Table shows each domainwise Practice gain score among the care givers. On an average, In pretest they are having 37.40% of Practice score and in post test they are having 38.80% of Practice score. Overall gain percentage of score is 38.10%

Comparison Of Pretest And Post test Level of Practice core

Level of Practice	Pretest		Posttest		Generalized Mc Nemar's test
	n	%	N	%	
Poor	51	85.00%	0	0.00%	$\chi^2=55.48$ P=0.001*** (S)
Moderate	9	15.00%	27	45.00%	
Good	0	0.00%	33	55.00%	
Total	60	100%	60	100%	

Table shows the pretest and post-test level of Practice among care givers. Before intervention, 85.00% of care givers are having in adequate Practice and 15.00% of them having moderate Practice and none of them are having adequate Practice. After intervention, none of the care givers are having in adequate Practice, 45.00% of them having moderate

Practice and 55.00% of the m are having adequate Practice.



Cylindrical diagram shows comparison of pretest and post test level of practice score of the study participants.

Effectiveness Health Empowerment Programme And Generalization Of Practice Gain Score

	Maxscore	Meanscore	% of meanscore	Mean Difference of Practice gain score with 95% Confidence interval	Percentage Difference of Practice gain score with 95% Confidence interval
Pretest	20	6.42	32.10%	7.62 (7.14–8.09)	38.10% (35.70%–40.45%)
Posttest	20	14.04	70.20%		

Table shows the effectiveness of health empowerment programme. On an average, in post test after having intervention, care givers are gained 38.10% more Practice score than pretest score.

CONCLUSION

The present study assessed the effectiveness of health empowerment programme. The study findings revealed that there was a significant improvement in the level of knowledge and practice after providing health empowerment programme. Based on the statistical findings, it was evident that provision of such kind of health empowerment programme would motivate the care givers and help them to acquire knowledge and practice regarding care of the patient with Cerebro Vascular Accident. Therefore health empowerment programme was very important to provide quality-nursing care which helps to meet the needs of the patients for their wellbeing. So the study accepted the hypothesis.

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