Research Article

A Study to Evaluate the Effectiveness of Planned Educational Programme on Knowledge and Quality of Life Regarding Cerebrovascular Accident Among the Patients with Post Cerebrovascular Accident in Selected Hospitals at Vijayapur, Karnataka

Shivanand K[1], Rajashekharayya CK[2]

Author Affiliations
[1]Mr. Shivanand Kore, Final Year Student of M.Sc. Nursing at Tulza Bhavani College of Nursing, Vijayapur-586101 (Karnataka), India.
[2]Dr. Rajashekharayya CK, HOD/Professor, Department of Medical Surgical Nursing, Tulza Bhavani College of Nursing, Vijayapur-586101 (Karnataka), India.
Corresponding Author Email: shivanandkore050@gmail.com

Abstract: Background: Cerebrovascular accident is the second leading cause of death and the third leading cause of disability. About i.e. million deaths in global and 3.5% of disability adjusted life year (DALY) in India due to stroke. Survivors can experience loss of vision and/or speech, paralysis and confusion. Stroke is so called because of the way it strikes people down. The risk of further episodes is significantly increased for people having experienced a previous stroke. The quality of life hampered by stroke in majority of patients. Post stroke motor recovery and its dependency on the patient's chronicity remain unclear. Post stokes physical rehabilitation prevention of another stroke and quality of life after stroke. **Objectives:** 1) To assess the knowledge of patients regarding cerebrovascular accident (stroke). 2) To assess the quality of life of patients with cerebral vascular accident. 3) To find the effectiveness of planned educational programme (PEP) on knowledge regarding cerebrovascular accident. 4) To find the effectiveness of planned educational programme on quality of life regarding cerebrovascular accident. 5) To determine the association between the knowledge score with selected socio-demographic variables. 6) To determine the association between the quality of life score with selected socio-demographic variables. **Methodology:** The research design used for this study is pre experimental (1 group pre-test and post-test) design. The study was conducted in selected Hospitals at Vijayapur, Karnataka. Sample of 60 cerebrovascular accident patients based on inclusion criteria were chosen by Purposive sampling technique. **Result**: The finding showed that the mean post-test knowledge score of the subjects was 18.48 is higher than the mean protest score of 9.60. The calculated 't' value obtained from paired 't' test was -13.87 (p-value<0.0001) and mean post-test QoL score of the subjects was 79.40 is higher than the mean pre-test score of 57.28. The calculated 't' value obtained from paired 't' test was -267.58 (p-value <0.00001) so there is enough evidence that educational program is effective in enhancing knowledge and QoL. The chi-square test was applied to check the association of socio-demographic variables with knowledge and QoL scores showed that occupation, place of residence, personal habit and pre-existing diseases were no significant. **Conclusion:** The result of the study showed that, there was a significant improvement obtained following PEP on cerebrovascular accident. This study enlightens that there is an immense need for educational programme in hospital or community to improve the knowledge and QoL of cerebrovascular accident patients regarding post cerebrovascular accident.
Keywords: Evaluate, effectiveness, PEP, knowledge, quality of life (QoL), cerebrovascular accident (CVA).

Introduction

An ounce of prevention is worth a pound of cure

-Unknown

Health is one of those terms which most people find it difficult to define, although they are confident of its meaning. Therefore, many definitions of health have been offered from time to time. "A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" in recent years, this statement have been amplified to include the ability to lead a socially and economically productive life.[1]

Health is multidimensional. The WHO definition envisages three specific dimensions-the physical, the mental and the social, spiritual, emotional, vocational and political dimensions as the knowledge base grows. The factors which influence health lie within the individual in which biological determinants, behavioural and socio-cultural conditions, environment, socio-economic conditions, health services, ageing of the population, gender and other factor.[2]

A condition in which body health is impaired, a departure from a state of health, an alteration of the human body interrupting the performance of vital functions. The term disease literally means without ease (uneasiness) disease the opposite of ease-when something is wrong with bodily function. The term disease the opposite of ease-when something is wrong with bodily function.[3]

Health promotion enables people to increase control over their own health. It covers a wide range of social and environmental interventions that are designed to benefit and protect individual people's health and quality of life by addressing and preventing the root causes of ill health, not just focusing on treatment and cure. The maintenance and promotion of health is achieved through different combination of physical, mental, and social well-being, together sometimes referred to as the health triangle. Examples of these activities include screening or surveillance, providing immunization to prevent illness, nutrition, exercize and health education.[4]

A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts (or ruptures). To work properly, brain needs oxygen. Although brain makes up only 2% of your body weight, it uses 20% of the oxygen you breathe. Major risk factors of stroke are hypertension, diabetes mellitus, dyslipidemia, obesity and body fat distribution, physical inactivity, smoking, alcohol, tobacco use. Unhealthy diet and nutrition, hormone replacement therapy (HRT), non-modifiable risk factors are age, race.[5]

Stroke symptoms by learning and sharing the F.A.S.T. Warning signs, use the letters face drooping, arm weakness, speech is slurred, additional symptoms of stroke, sudden numbness, sudden confusion, sudden trouble seeing, sudden trouble walking, sudden severe headache.

Stroke diagnosis is made by collecting medical history, doing a physical and neurological examination, lab (blood) tests, CT scan or MRI brain scan. Treatment depends upon type of stroke, a thrombolytic to break up blood clots. Tissue plasminogen activator (tPA), an endovascular procedure or a mechanical thrombectomy.[6]

Prevention of stroke is healthy diet, healthy weight, physical activity, no smoking, limited alcohol, tobacco, control the medical condition. If people have heart disease, high cholesterol, high blood pressure, or diabetes they can take steps to lower risk for stroke, without fail to take prescribed medications and check with doctor before making any changes and preventing another stroke.[6]

Material and Methods

Research approach   **:** Evaluative Research Approach.

Research design   **:** Pre-experimental; one group pre-test, post-test design.

Research setting : Selected hospitals at Vijayapur.

Population
Target Population : Post cerebrovascular Accident Patients

Sample and sampling technique
Sample : Post cerebrovascular Accident Patients Admitted in Selected hospitals at Vijayapur.
Sampling technique : Purposive sampling technique.
Sample size : 60 Post cerebrovascular Accident Patients.

Criteria for selection of the sample
The criteria for sample selection are mainly depicted under two headings, which includes the inclusion and the exclusion criteria.

Inclusive criteria:
The study includes: Post CVA patients, who are;
✓ Co-operative and willing to participate in the study
✓ Available during the time of data collection
✓ At age group of 18 to 55 years.

Exclusion criteria:
The study excludes: Post CVA patients, who are;
✓ Not available at the time of data collection.
✓ Not co-operative and not willing to participate in the study

Development of the tool
The tool used for research study was Self-administered knowledge questionnaire which was prepared to assess the knowledge and quality of life regarding cerebrovascular accident. The tool was formulated on the basis of the experience of the investigator, review of literature, extensive library search and consultation with experts.

Description of the data collection tool
The tool selected for the study was Self-administered knowledge questionnaire which comprised of two sections. They were:

Section I: Socio Demographic Data containing 10 items.

Section II: Self-administered knowledge questionnaire which consists of 25 items for assessing the knowledge of adolescents regarding cirrhosis of liver.

Section III: WHO-health related quality of life-scale (HRQOL).

Each correct answer carries 1 mark and incorrect answer carries 0 mark.

Further tool was divided into:
1) Introduction about Cerebro Vascular Accident
2) Definition about Cerebro Vascular Accident
3) Etiology about Cerebro Vascular Accident
4) Risk Factors about Cerebro Vascular Accident
5) Types of about Cerebro Vascular Accident
6) Signs and symptoms about Cerebro Vascular Accident
7) Diagnosis about Cerebro Vascular Accident

8) Treatment about Cerebro Vascular Accident
9) Prevention on Cerebro Vascular Accident
10) Complications of Cerebro Vascular Accident
11) Diet of Cerebro Vascular Accident

Development and Description of the Planned Educational Programme
The script of planned educational programme was designed and developed by the investigator with the help of review of literature and suggestion of guide and experts. Planned educational programme was based on following aspects: introduction, definition, etiology, risk factors, types, signs and symptoms, diagnostic evaluations, treatment, prevention complications, Diet of the Cerebro Vascular Accident.

For the present study, in order to organise the content of the lesson plan, the literature were reviewed from the books, journals, published and unpublished studies, electronic media and websites. Opinion and suggestions from various experts were also considered for designing Planned Education programme.

Results
Findings related to socio-demographic variables of subjects
According to age in years, 15% were between the ages of 18-25 years, 18.3% were between 26-35 years of age, and 35 % were between the age group of 36-45 and rest of 31.7%. were between the age group of 46-55. According to gender, 60.0% were males, 36.7 % were females and rest transgender 3.3 %.

On the basis of religion, majority of the patients (51.6%) were Hindu, 25.0 % were Muslim and 21.7% were Christian, and rest of other 1.7%. According to place of residence, Majority of the samples (36.7%) were from rural, (20%) from semi-urban area and 43.3 % rest of urban area.

On the basis of occupation, 10% were coolie workers, 13.3% were farmer, 28.3% were working in private and govt. sector as an employee, 50% were retired, and 43.3 % were doing other works. On the basis of type of family, 43.3% were nuclear, 31.7% were joint, and 25.0% were extended family.

Regarding personal habit, 21.4% of stroke patients were smokers/using snuffs, 33.3% were alcoholics/drug abuse, 25.0% were pan chewing and 78 3.3% were do not have any personal habits. Regarding dietary pattern, 28.3% were vegetarian and remaining 71.7.0% was mixed.

According to the pre-existing disease, 30.0% were suffering from Diabetic Mellitus/Hyperthyroidism, 33.4% were suffering from hypertension, 18.3% were suffering from coronary artery disease, and 18.3% were suffering from hypothyroidism. Regarding source of information, 45.0% were get information from family/relatives, 53.3% were from friends, and 1.7% was from books and none of from magazines.

Analysis and interpretation of knowledge scores of subjects who have participated in the study regarding cerebrovascular accident

Table 1. Frequency and percentage distribution of pre-existing level of knowledge of cerebrovascular accident patient

S.No.	Level of knowledge	Scores	Frequency (f)	Percentage (%)
1	Inadequate	<50%	55	91.7
2	Moderately adequate	50-75%	04	6.6
3	Adequate	75%	01	1.7
	Total		60	100.0

Table 1, shows the frequency and percentage distribution of cerebrovascular accident patients according to the pre-test level of knowledge of cerebrovascular accident. The level of knowledge were seen into 3 categories, inadequate, moderate, and adequate. Majority of the stroke patients 55 (91.7%) had inadequate knowledge, 4(6.6%) had moderately adequate and 1(1.7%) had adequate knowledge.

Table 2. Analysis and interpretation of pre-test Quality of life of cerebrovascular accident patients

S.No.	Quality of life	Frequency (f)	Percentage (%)
1	Inadequate	33	55.0
2	Moderately adequate	20	33.3
3	Adequate	07	11.7
	Total	60	100.0

Table 2 shows the frequency and percentage distribution of cerebrovascular accident patients according to the pre-test level of QoL of cerebrovascular accident. The level of QoL were seen into 3 categories, poor, average and good. More than half of the stroke patients 33 (55.0 %), had poor QoL, 20 (33.3%) had average and 7(11.7%) had good QoL.

Table 3. Frequency and percentage distribution of knowledge scores of subjects of cerebrovascular accident patients

S.No.	Test	Pretest	%	Posttest	%
1	Inadequate	55	91.7	15	25.0
2	Moderately adequate	04	6.6	10	16.7
3	Adequate	01	1.7	35	58.3
	Total	60	100.0	60	100.0

From table 3, it was seen that level of knowledge of the adolescents were inadequate before PTP, whereas after PTP majority 50(83.4%) of them had adequate knowledge and remaining 10(16.6%) had moderately adequate knowledge regarding liver cirrhosis. Hence planned teaching program had increased level of knowledge.

Table 4. Comparing effectiveness of planned educational programme on knowledge among the cerebrovascular accident patients

	Paired Differences			t	df	Sig. (2-tailed)
Pretests *Posttest	Mean	Std. Deviation	S.E Mean			
	-8.88	4.96	0.64	-13.87	59	0.0001(S)

Table 4 shows paired statistics of knowledge score of the cerebrovascular accident patient regarding cerebra vascular accident. The mean paired difference in knowledge score was -8.8 with standard deviation of paired difference was 4.96 which was statistically significant with paired t-value = -13.87 (p-value <0.0001).

Testing of hypothesis
H_1: A significant difference will be found between the pre-test and lest knowledge scores of the patients regarding cerebrovascular accident at 0.05 level of significance.

Table 1 shows that enhancement in knowledge regarding cerebrovascular accident after PEP was significant. So research hypothesis H_1 was accepted. This indicates the gain in knowledge score is statistically significant at P<0.05 levels. The result indicated that the planned educational programme was effective.

H₂: A significant difference will be found between the pre-test and lest QOL scores of the patients regarding post cerebrovascular accident at $P<0.05$ level of significance.

Table 2 shows that enhancement in quality of life regarding cerebrovascular accident after PEP was significant. So research hypothesis H_2 was accepted. This indicates the improvement in quality of life score is statistically significant at $P<0.05$ levels. The result indicated that the planned educational programme was effective.

Analysis and interpretation of data to find out an association between pre-test knowledge scores of subjects with their selected socio demographic variables.
There was no association between sociodemographic variables and knowledge level. Hence H_1 is accepted.

Recommendations
a) A similar study can be conducted on assessment of knowledge and quality of life regarding cerebrovascular accident among high risk population or with various sociodemograhic variables.
b) An experimental study can be undertaken with control for effective comparison of the results of cerebrovascular accident.
c) A study can be carried out to evaluate the efficacy of various teaching strategies like self-instructional module, video assisted teaching programme.

Conflicts of interest: The authors declare no conflicts of interest.

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