*Research Article*

# EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF CEREBROVASCULAR STROKE AMONG HYPERTENSIVE PATIENTS

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**A R T I C L E   I N F O**

**A B S T R A C T**

Cerebrovascular Stoke is a leading cause of death and severe, long-term disability. Most people who've had a first stroke also had high blood pressure. High blood pressure damages arteries throughout the body, creating conditions in which they can burst or clog more easily. Weakened or blocked arteries in the brain put peoples at a much higher risk for stroke, which is why managing high blood pressure is critical to reduce the risk of developing cerebrovascular stroke. This study is descriptive in nature. The study sample consists of 30 hypertensive patients. Convenience sampling technique was used to select the samples. Self-structured Validated questionnaire was used to assess the level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients. The study finding revealed that majority of the patients 23 (76.6%) of the patients had poor knowledge, 7 (23.3%) had average knowledge and none of the patient had good knowledge. Whereas, 7 (23.3%) of the patients had poor knowledge, majority of the patients 21 (70%) had average knowledge and 2 (6%) had good knowledge after the implementation of planned teaching program. And there was association between age, gender and education status with knowledge score**.** It was noted that the knowledge level of hypertensive patients regarding prevention of cerebrovascular stroke was poor among most of the samples, and the implementation of planned teaching programme can improve the knowledge regarding prevention of Cerebrovascular accident. Practicing nurses have favourable opportunities to educate the patients regarding home care management and prevention of complications among patient at risk of developing cerebrovascular stroke.

## INTRODUCTION

Hypertension or High blood pressure is a cardiac chronic medical condition in which arterial blood pressure is elevated. About 90-95% of cases are categorized as 'primary hypertension' which means high blood pressure with no obvious medical cause. The remaining 5-10% is caused by other conditions that affect the kidneys, arteries, heart or endocrine system.

Hypertension which is persistent is one of the risk factors for cerebrovascular stroke, myocardial infarction, heart failure and arterial aneurysm and is the leading cause of renal failure. Meeting the need for knowledge relating to the nature of stroke and risk factors for stroke is still a substantial challenge in the world. Lack of knowledge about stroke in general and specific knowledge of the risk factors, signs and symptoms of stroke results in the late presentation of patients at the hospital [1].

Even though cerebrovascular stroke is preventable through the prevention of modifiable risk factor, it is one of the leading causes of death and disability worldwide. For example, people with hypertension were four times more likely to have stroke than those with normal blood pressure. As a result, hypertension is the most common modifiable risk factor for stroke. Additionally, about 80% of people who had high blood pressure were attacked by stroke [2].

The lack of understanding, improper diagnosis, and inadequate management of hypertension contributed to an increased risk of stroke in different countries. Several studies have shown a lack of awareness among hypertensive patients towards risk factors, warning signs, and behaviours of acute stroke [3]. Life style modification and home care measures can serve as an initial step in preventing the complications related to hypertension

### *Problem Statement*

A study to assess the effectiveness of Planned teaching programme on knowledge regarding prevention of cerebrovascular stroke among hypertensive patients in selected hospital, Madurai

### *Objectives*

1. To assess the level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

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2. To assess the effectiveness of planned teaching programme on knowledge regarding prevention of cerebrovascular stroke among hypertensive patients
3. To find out the association of knowledge with their selected demographic variables

## METHODOLOGY

### Research Approach

Quantitative approach

### Study Design

A Pre-experimental one group pre-test pot-test research design used to assess the level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

### Sampling Technique

Convenience sampling technique was used to select the sample

### Sample Size

The samples comprised of 30 hypertensive patients

### Tool

Self-structured Validated questionnaire

**Section A:** Demographic variables (Age, Gender, Religion, Education, Occupation, Income and Information regarding Hypertension)

**Section B:** Self –structured questionnaire (20 questions with multiple choice items related to prevention of cerebrovascular stroke)**.** Each question has score 1 with maximum total score of 20, and based on the score the score interpretation was done 16-20: Good

11-15: Average
$\leq 10$: Poor

## RESULTS AND DISCUSSION

### Section I: Description of sample characteristics (Demographic Variables)

Table No. 1 Portrays distribution of sample characteristics according to demographic variables and displays the frequency and percentage scores obtained. It depicts that majority 15 (50%) of the patients were between 30-34 years of age, 16 (53.34%) of the patients were female, 26 (86.66%) of the patients were Hindu, 13 (43.33%) of the patients were at the level of primary education, 13 (43.33%) of the patients were sedentary workers, 24 (80%) of the patients earned less than Rs.5000 per month and 15 (50%) of the patients got information from social media regarding prevention of cerebrovascular Stroke

### Section II: The level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

Figure No. 1 Portrays distribution of sample according to the frequency and percentage distribution of level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients before and after implementation of structured teaching program. It depicts that majority of the patients 23 (76.6%) of the patients had poor knowledge, 7 (23.3%) had average knowledge and none of the patient had good knowledge. Whereas, 7 (23.3%) of the patients had poor knowledge, majority of the patients 21 (70%) had average knowledge and 2 (6%) had good knowledge after the implementation of planned teaching program.

### Section III: Effectiveness of planned teaching programme on knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

Table No. 2 Portrays the effectiveness of planned teaching programme on knowledge regarding prevention of cerebrovascular stroke among hypertensive patients. It depicts that the knowledge mean score and the standard deviation in pre-test was (9±2.24) and in post-test mean score and standard deviation was (13±2.69) and was found that the post-test score was relatively higher than the pre-test score. It shows that planned teaching program is effective to improve the knowledge regarding prevention of cerebrovascular stroke among hypertensive patients.

### Section IV: Association of knowledge score with demographic variables

This section portrays the association between the knowledge score of the hypertensive patients regarding prevention of cerebrovascular stroke with their demographic variables and the Chi square ($\chi^2$). It reveals that an association between age ($\chi^2 = 7.23$), gender ($\chi^2 = 1.99$) and education status ($\chi^2 = 4.62$)) with knowledge score, and there is no association between the knowledge scores and other demographic variables like religion, occupation, income and information regarding hypertension.

**Table No. 1** Frequency and percentage distribution of demographic variables

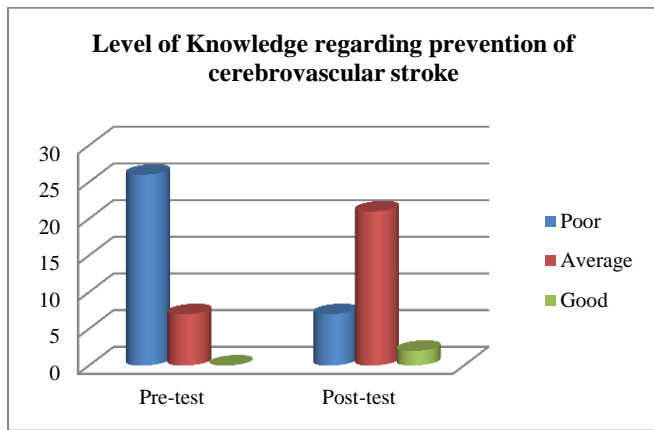| S.No. | Demographic variables | | Frequency | Percentage (%) |
|---|---|---|---|---|
| | **Age (in years)** | | | |
| 1. | a) | 20-24 | 4 | 13.33 |
| | b) | 25-29 | 11 | 36.66 |
| | c) | 30-34 | 15 | 50.01 |
| | **Gender** | | | |
| 2. | a) | Male | 14 | 46.66 |
| | b) | Female | 16 | 53.34 |
| | **Religion** | | | |
| | a) | Hindu | 26 | 86.66 |
| 3. | b) | Christian | 2 | 6.67 |
| | c) | Muslim | 2 | 6.67 |
| | d) | Others | - | - |
| | **Education** | | | |
| | a) Education | Primary | 13 | 43.33 |
| 4. | b) Education | Secondary | 9 | 30.01 |
| | c) | Degree | 7 | 23.33 |
| | d) | Illiterate | 1 | 3.33 |
| | **Occupation** | | | |
| | a) worker | Sedentary | 13 | 43.33 |
| 5. | b) worker | Moderate | 8 | 26.66 |
| | c) | Heavy worker | 3 | 10.01 |
| | d) | Not working | 6 | 20 |
| | **Income** | | | |
| 6. | a) | < Rs.5000 | 24 | 80 |
| | b) | Rs.5000-10,000 | 4 | 13.3 |
| | c) | > Rs.10,000 | 2 | 6.67 |
| | **Information** | | | |
| 7. | a) | Social media | 15 | 50 |
| | b) | Friends | 8 | 26.66 |
| | c) | Relatives | 2 | 6.67 |
| | d) | Books | 5 | 16.67 |

**Figure No. 1** Level of knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

**Table No. 2** Mean score difference of pre-test and post-test on knowledge regarding prevention of cerebrovascular stroke among hypertensive patients

| Group | Knowledge | |
|---|---|---|
| | **Mean** | **Standard deviation (SD)** |
| Pre-test | 9 | 2.24 |
| Post-test | 13 | 2.69 |

## CONCLUSION

Cerebrovascular stroke is a global health problem, causing significant morbidities and mortalities in both developing and developed countries, patient living with chronic diseases like hypertension are at a high risk of stroke. Approximately 80% of stroke could be prevented with necessary preventable practices [4]. Hypertension is established as a leading risk factor for stroke. However, the control of blood pressure (BP) in the prevention of stroke is suboptimal [5].

It was noted that the knowledge level of hypertensive patients regarding prevention of cerebrovascular stroke was poor among most of the samples. Practicing nurses have favourable opportunities to educate the patients regarding home care management and prevention of complications among patient at risk of developing cerebrovascular stroke. Education plays a vital role in bringing changes in the health pattern and life style.

**Conflict of Interest**

We declare that we have no conflict of interest

## Reference

1. Urmila Patidar, Hanisha Patel, Dipak Patidar. A Study to assess The Effectiveness of Structured Teaching Programme on Knowledge regarding Prevention of stoke among Hypertensive patients in selected Hospitals of Mehsana District. Asian J. Nursing Education and Research. 2020; 10(1):89-92. Doi:10.5958/2349-2996.2020.00020.8

2. Tibebu NS, Emiru TD, Tiruneh CM, Nigat AB, Abate MV, Demelash AT. Dovepress journal. 22 April 2021. Volume 2021: 1681-1688. https://doi.org/10.2147/RMHP.S303876.

3. Alhowaymel FM, Abdelmalik MA, Mohammed AM, Mohamaed MO, Alenezi A. Knowledge, Attitude, and Practice of Hypertensive Patients Towards Stroke prevention among rural population in Saudi Arabia: A cross-sectional study. SAGE Open nursing. 2023;9. Doi: 10.1177/23779608221150717.

4. Fkrte Kebede Woldetsadik. Stroke related knowledge, prevention practice and associated practice among hypertensive patients. Front.Neurol., 19 April 2022. Volume 13-2022. https;//doi.org/10/3389/fneur.2022.839879

5. Josephine McCarthy, Jung Yang. Hypertension management in stroke prevention. Ahajournal.org. Volume 52, Issue 10, October 2021; Pages e626-e634. https://doi.org/10.1161/STROKEEAHA.120.033990.

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