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Effectiveness of Structured Teaching Programme on knowledge regarding Cerebrovascular Accident

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Abstract : Hypertension is one of the major health problem worldwide which is a persistent elevation of systolic blood pressure at level of 140 mm Hg or higher and diastolic blood pressure at level of 90 mm Hg. Hypertension has devastating effects on the brain, being a major cause of cerebrovascular accident. CVA often results in permanent serious complications and disability and is a common cause of death. A Quasi experimental study using pre-test post-test design was conducted to assess the effectiveness of structured teaching programme on knowledge regarding cerebrovascular accident among 60 hypertensive patients residing in villages namely Rampura (30 in experimental group) and Ghumanpura (30 in control group) of Amritsar district, Punjab. The sample was selected by purposive sampling technique.The research tool consisted of socio-demographic profile and self structured knowledge questionnaire regarding CVA was used to collect the data.

Study findings revealed that hypertensive patients in experimental group had (60%) below average knowledge in the pre test while in the control group half of hypertensive patients (50%) had below average knowledge. More than half (53.3%) of hypertensive patients in experimental group had good knowledge in post test and control group (53.3%) had average knowledge. The findings revealed that post test mean score (17.4±3.9) was higher in experimental than in control group mean (8.2±3.1). ANOVA and "t" test were applied to find the association of post test knowledge of the hypertensive patients. In both experimental and control groups there was significant association between knowledge and duration of illness, while gender, education, occupation, dietary pattern, source of information had non significant association with post test knowledge score of hypertensive patients in experimental group and control group.

Hence it can be concluded that cerebrovascular accident is an important factor to be discussed with the hypertensive patients who are at more risk to develop cerebrovascular accident in later life. So, it is important to organize the teaching programmes to enhance the knowledge related to life style changes, dietary changes to reduce the risk of cerebrovascular accident.

Key words: *knowledge; cerebrovascular accident; hypertensive patients.*

Introduction: Hypertension as a persistent elevation of systolic blood pressure (SBP) at a level of 140 mm Hg or higher & diastolic blood pressure (DBP) at a level of 90 mm Hg or higher. Diseases of the heart and blood vessels constitute a major health problem today. Hypertension is a nutritional– hygienic disease. The seeds of hypertension are rooted in physical activity, long term caloric intake in excess of energy expenditure, chronic supra physiological intake of dietary sodium, excessive alcohol consumption and psychosocial stressors, these all contribute to the development of hypertension throughout the World.

Hypertension has been shown to carry an increased risk not only for cerebrovascular morbidity and mortality but also for cognitive impairment and dementia. Although diastolic blood pressure is considered as an important risk factor, it is now clear that isolated systolic hypertension and elevated pulse pressure also play an important role in the development of brain complications. Therefore the treatment of these conditions must urgently become a widespread tool of prevention.

Cerebrovascular accident is a very serious condition in which the brain is not receiving enough oxygen to function properly. A cerebrovascular accident is also called CVA, brain attack, cerebrovascular disease, cerebral infarction or stroke. A cerebrovascular accident often results in permanent serious complications and disability and is a common cause of death. Cerebrovascular disease is the third leading cause of death after heart disease and malignancy and it is estimated that an average of 500,000 new strokes will occur each year in the USA. Cerebrovascular disease is the most disabling of all neurologic diseases. Approximately 50% of survivor have a residual neurologic deficit and greater than 25% require chronic care. Stroke incidence and mortality are declining primarily due to the successful treatment of hypertension and control of risk factors.

Risk for stroke and transient ischemic attack increases exponentially with age. Hypertension is one of the modifiable risk factors for stroke. Lowering blood pressure is helpful for primary and secondary prevention of stroke. Most stroke patients have well known risk factors for cerebrovascular disease, some time before stroke. Thus, it is possible to decrease the stroke incidence by reducing the prevalence of risk factors in the population and identifying "high risk" individuals, who can be treated. Risk factors can be broadly classified into controllable and uncontrollable risks or modifiable or non-modifiable risk factors. Modifiable risk factors include, hypertension, smoking, heart diseases, Transient Ischemic Attacks (TIA), diabetes mellitus, high cholesterol, physical inactivity and obesity, alcohol and drug abuse, injury to brain. Non modifiable risk factors include age, sex and genetic factors.

RESEARCH METHODOLOGY

Aim of study

The aim of the study is to assess the knowledge regarding cerebrovascular accident among hypertensive patients with a view to enhance the knowledge by giving structured teaching programme.

Objectives

1. To assess pre-test knowledge regarding cerebrovascular accident in experimental group and control group among hypertensive patients.
2. To assess post-test knowledge regarding cerebrovascular accident in experimental group and control group among hypertensive patients.
3. To compare pre-test and post-test knowledge regarding cerebrovascular accident in control group and experimental group among hypertensive patients.
4. To determine association of post-test knowledge regarding cerebrovascular accident in experimental group and control group with selected socio demographic variables .

Operational definitions

Structured teaching programme: It is planned and purposeful teaching programme which can be given to hypertensive patients in selected rural areas regarding cerebrovascular accident.

Knowledge: It is defined as the awareness of hypertensive patients regarding cerebrovascular accident.

Cerebrovascular accident: It is a neurologic disorder which occur when the blood flow to a part of brain is stopped either by a blockage or a rupture of blood vessel.

Hypertensive patients: This refers to the patients who are having increased blood pressure as diagnosed by physician.

Research design

Non- equivalent pre test post test control group design (Quasi experimental) was used for the study

Experimental group		O_1	x	O_2
Control group	O_1		O_2	

Sample and sampling technique

The total sample was 60 hypertensive patients (30 in experimental group and 30 in control group) in selected rural areas of Amritsar, Punjab and purposive sampling technique was used for the study.

Selection and development of tool

As the study is to assess the effectiveness of structured teaching program on knowledge regarding cerebrovascular accident in selected rural areas of Amritsar, Punjab. A structured questionnaire was prepared to assess the knowledge regarding cerebrovascular accident among hypertensive patients.

Description of tool

The tool consisted of following parts:

Part A: Socio- demographic profile

This part consisted of items for obtaining personal information of the hypertensive patients like age (in years), gender, education, occupation, dietary pattern, duration of illness (in years) and source of information.

Part B: Structured questionnaire regarding cerebrovascular accident.

This part consisted of multiple choice questions regarding cerebrovascular accident. A total of 30 questions were included and each question had a score of one mark. Maximum score was 30 and minimum was 0.

Criterion Measure

Levels of Knowledge	**Score**	**%**
Very good	>22	> 75%
Good	15-22	51-75%
Average	7-14	25-50%
Below average	<7	< 25%

SECTION-I

SAMPLE CHARACTERISTICS

Table 1

Frequency and percentage distribution in experimental and control group according to socio-demographic variables.

N=60

Socio-demographic variables	**Experimental Group n=30**		**Control Group n=30**		**df**	**χ^2**
	n	**%**	**n**	**%**		
1. Age (in years)						
31-40	4	13.3	5	16.7		
41-50	4	13.3	3	10	3	.25^{NS}
51-60	11	36.7	11	36.7		
>60	11	36.7	11	36.7		
2. Gender						
Male	12	40	10	33.3	1	.28^{NS}
Female	18	60	20	66.7		
3. Education						
Illiterate	12	40	17	56.7		
Upto Matric	14	46.7	12	40	2	2.81^{NS}
Higher Secondary	4	13.3	1	3.3		
Graduate & Above	-	-	-	-		
4. Occupation						
Unemployed	24	80	25	83.3		
Self-Employed	6	20	5	16.7	1	.11^{NS}
Private Employee	-	-	-	-		
Govt. Employee						

	-	-	-	-		
5. Dietary Pattern						
Vegetarian	12	40	9	30	2	2.7^{NS}
Non-vegetarian	11	36.7	8	26.7		
Eggetarian	7	23.3	13	43.3		

Socio-demographic variables	Experimental Group n=30		Control Group n=30		d.f.	χ^2
	n	%	n	%		
6. Duration of Illness (years)						
≤ 5	6	20	6	20	2	$.40^{NS}$
6-10	6	20	8	26.6		
>10	18	60	16	53.3		
7. Source of Information						
Books/Newspaper/Pamphlets	6	20	6	20		
Television/Radio/Internet	2	6.7	2	6.7	2	$.00^{NS}$
Friends/Elders	-	-	-	-		
Health Personnel	22	73.3	22	73.3		

NS- Non Significant at p<0.05

SECTION II

OBJECTIVE WISE ANALYSIS

Objective 1: To assess the pre-test knowledge regarding cerebrovascular accident in experimental group and control group among hypertensive patients.

Table- 2

Frequency, percentage distribution and mean of Hypertensive patients in experimental and control group according to pre-test knowledge regarding cerebrovascular accident.

N=60

Level of knowledge	Experimental Group (n=30)				Control Group (n=30)			
	n	%	Mean	SD	n	%	Mean	SD
Very good (>22)	0	0	6.2	2.7	0	0	7.2	3.2
Good (15-22)	0	0			0	0		
Average (7-14)	12	40			15	50		
Below average(<7)	18	60			15	50		

Maximum Score=30
Minimum Score=0

Discussion

Objective 1: To assess pre-test knowledge regarding cerebrovascular accident in experimental group and control group among hypertensive patients.

The analysis of data regarding cerebrovascular accident among hypertensive patients related to pre-test knowledge revealed that 60% had below average knowledge, 40% had average knowledge.

The findings are consistent with result of study on effectiveness of structured teaching programme regarding prevention on cerebrovascular accident findings revealed that 23.33% of the patients had average knowledge, 76.66% had poor knowledge.

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