Effectiveness of an Instructional Program on Hypertensive Patients' Knowledge toward Prevention of Cerebral Vascular Accident at Al-Razi Center in Al-Basra City

Khadija Mohammed Jassim [1], Suad Jassim Mohammed[2]

[1]M.Sc. Student, College of Nursing, University of Basra, [2]Prof Dr., College of Nursing, University of Baghdad

Abstract

Introduction: Stroke is a neurological condition that is one of the leading causes of death and disability in many low and middle income countries. However, many adjustable risk factors have become important. High blood pressure is the most common stroke risk factor globally as well as in our country, Basra.

Objectives: To assess knowledge of patients with hypertension concerning prevention of cerebral vascular accident. To construct an instructional program for patients with hypertension concerning prevention of cerebral vascular accident. To evaluate the effectiveness of an instructional program on the knowledge of patients with hypertension concerning prevention of cerebral vascular accident. To know the association between level of knowledge the association between level of knowledge concerning prevention of cerebral vascular accident and socio-demographic variables.

Methodology: : A quasi- experimental design (two group pre- test and post-test) was conducted in the present study which is carried out at

Al-Razi Center in Al-Basra City from 8th of September 2019, to 16th of March, 2020. A non – probability (purposive) sample of (60) patients with hypertension were selected.

Conclusion: There is significance need for educational program between (residency, type of family, duration of illness, habits and regularity of hypertension treatment) to prevention serious complication which stroke.

Key words: *Hypertensive, Prevention, Cerebral Vascular Accident.*

Introduction

High blood pressure is not a disease but it is an important risk factor for cardiovascular complications. It is known as a condition in which the blood pressure is raised to the point where signs and symptoms of hypotension appear. About 77.9 million American adults (one in 3 people) and a billion people worldwide have high blood pressure [(1)]. Also, high blood pressure is a serious problem in developing countries where there is a transition from infectious diseases to chronic non-communicable diseases. In addition, complications from high blood pressure increase with age (such as heart failure, stroke, and kidney failure). One in four people aged 18 years or over has high blood pressure in developed countries [(2)].

A cerebral vascular accident (CVA) or "stroke" is a rapid loss of brain function due to a disorder of blood flow to the brain part. The term stroke is used to describe to health-care and general practitioners that a stroke is an emergency situation similar to a heart attack [(3)].

As well as, A stroke is defined as a rapid onset (within minutes) of the focal central nervous system and signs and symptoms lasting 24 hours or more, and it occurs for an unknown or secondary cause of other diseases. In our time, it is caused by a neurological disease, (1.5 / 1000 / year) increases with age to (10/1000 / year at 75 years). It has caused the death of one person in every eight cases, and has caused a tremendous burden of powerlessness and sadness for patients, their relatives and the wider community [(4)].

Methodology

Design of the Study:

A quasi- experimental design was used in the present study. Data collection was done at two times: baseline data (before any intervention was provided to the study group) and data that are collected 14 days after giving the instructional program for study group. The period of the study extended from 8th of September 2019, to 16th of March, 2020.

Setting of the Study:

The study was conducted at the Al-Razi Center, which treats high blood pressure and diabetes patients in Basra.

Sample of the Study:

Non – probability (purposive) sample of (60) high blood pressure patients were selected. They selection of patients was built on the following criteria:

Method Data Collection:

The data was collected through the use of A structured questionnaire, the researcher assumed full responsibility for interviewing the study sample after explaining and clarifying the objectives of the study for the adults, after obtaining the initial approval of each patient to participate in the study.

Data collection was carried out from 2nd January to 1st February, 2020.

Spend approximately (5-15) minutes with each patient to the interview and complete the questionnaire.

The Study Instrument:

The study tool is a questionnaire that was designed for the purpose of the study after extensive reviews of accessible literature and related studies. The study tool consists of five parts:

Part I: Socio-demographic Characteristics of the Sample of the Study

This part deals with demographic characteristics of the sample consists of age , gender, level of education , marital status, occupation, place of residence, duration of illness, habits, family history of hypertension, type of family, socioeconomic status, patient past history and taking antihypertensive treatment regularly.

Part II: General information regarding Hypertension.

This part was designed to include (14 items) that represented the information of patient related to hypertension.

Part III: Assessment of Patient`s Knowledge Concerning stroke

This part of the questionnaire consists of (11 multiple choice questions) of patient's knowledge concerning stroke.

Part IV: Information regarding Prevention of Stroke among Hypertensive Patient

This part of the questionnaire consists of (13 multiple choice questions) prevention of stroke.

Part V: knowledge concerning hypertensive Medication

This part was consists of (8 items) which include strongly disagree, disagree and agree.

Data Analysis

Data from this study were analyzed using SPSS version 24.0. The following statistical data analysis methods were used to analyze and evaluate the results of the study (Frequencies, percent Mean of score (MS), Pearson Correlation Coefficient, Standard Deviation and Chi-square, Paired sample T-test, Analysis of Variance (ANOVA), Independent t-test).

Results

Table (1) Distribute the sample according to their clinical characteristics

List	Characteristics	Study Group		Control Group		X^2	df	P-value	Sig.
		f	%	f	%				
1	**Duration of illness**								
	< 1 year	0	0	0	0	5.958	6	0.202	N.S
	1 – 2 years	8	26.7	4	13.3				
	3 – 4 years	8	26.7	7	23.3				
	5 ≤ years	14	46.7	19	63.3				
	Total	30	100	30	100				
2	**Habits**								
	Smoking	4	13.3	3	10	10.838	6	0.028	S
	Nonsmoking	17	56.7	23	76.7				
	Drink alcohol	0	0	0	0				
	Doing exercise	9	30	4	13.3				
	Total	30	100	30	100				
3	**Family history of hypertension**								
	No	9	30	6	20	0.347	2	0.556	N.S
	Yes	21	70	24	80				
	Total	30	100	30	100				
4	**On regular hypertensive treatment**								
	No	6	20	8	26.7	5.615	2	0.18	S
	Yes	24	80	22	73.3				
	Total	30	100	30	100				
5	**Suffering from other disease**								
	No	16	53.3	18	60	1.692	2	0.193	N.S
	Yes	14	46.7	12	40				
	Total	30	100	30	100				

f: Frequency, %: Percentage, X^2: Chi-square, df: degree of freedom, p: Probability, Sig: Significance, S: Significant, N.S: Not significant

This table indicates a duration of illness is (5≤ years) for patients among the study group (46.7%) and among the control group (63.3%).

Regarding daily habits, more than half of patients among the study group are nonsmokers (56.7%) and (30%) of them are doing exercise. Among the control group, the highest percentage of patients also show that (76.7%) of them are nonsmokers and only (13.3%) of them are doing exercise.

More of the patients among the both groups; the study and control showing that they having a family history of hypertension (70% and 80%); they also show that more of them are on regular treatment of hypertension (study group= 80% and control group= 73.3%).

Regarding suffering from other diseases, only (46.7%) of the patients among the study group and (40%) among the control group are suffering from other diseases.

Table (2) Level of Patients' Knowledge about Prevention of Stroke

Levels of Knowledge	Study Group (N= 30)				Control Group (N= 30)			
	Pre-test		Post-test		Pre-test		Post-test	
	f	%	f	%	f	%	f	%
Poor	27	90	0	0	29	96.7	29	96.7
Fair	3	10	0	0	1	3.3	1	3.3
Good	0	0	30	100	0	0	0	0
Total	30	100	30	100	30	100	30	100

f: Frequency, %: Percentage

Poor= 0-3, Fair= 4 -7, Good= 8-11

This table shows the level of patients' knowledge regarding prevention of stroke; the finding among the study group indicates that the patients during the pre-test time showing poor level of knowledge (90%). The level of knowledge is increased during the post-test time to good level among all patients (100%).

The patients among the control group showing poor level of knowledge during the pre-test and post-test time (96.7% and 96.7%).

Discussion

The findings of the study underhand depict that (76.7%) of patients are females among both groups; the study and control. Kisokanth etal., [6] supported present study by the gender there were (59.0%) of samples females.

Regarding the educational level of patients; the results of the present study reveals that the highest percentage of patients are graduated from primary school, among the study group (26.7%) and control group (36.7%). This conclusion is supported by Tesha , [7] who concluded that (40.6%) of the sample were primary school.

As regards the occupation the results of the present study indicate that (43%) of patients are working and (40%) are housewives among the study group; among the control group, (46.7%) of them are housewives and (23.3%) of them are working. These findings come along with Jarelnape ,[2] who stated that (73%) of patients were working.

Beside the residence, the findings of the current study reveal that more of the patients are residents in an urban area among the study group (76.7%) and among the control group (86.7%). These results are consistent with Haghighi etal., [8] stated that (84.7%) of participant's resident in urban areas.

Concerning the marital status among both groups. the results of the present study depict that the study and control show that more of them are married with the highest percentages (study group= 76.7% and control group= 86.7%). These findings identical with Dar etal., [9] who have been found that (86.5%) of the sample were married.

Regarding family type, the results of current study describe that the majority of patients are living in extended families among both groups; the study and control groups (90% and 93.3%). These results incongruent with Jayalakshmi,[10] Who reported that the type of family 45 (75%) were comes under nuclear family and 22 (25%) were comes under join family.

Moreover, the social and economic level the finding of the present study depicts that patients among the study group associated with moderate socioeconomic level (76.7%), while those in control group refer that with

high socioeconomic level (76.7%). These results come along with Bollampally eta.,[1] stated that (66.25%) of participants with moderate socioeconomic levels.

Regarding duration of illness the results of current study indicate a duration of illness is (5≤ years) for patients among the study group (46.7%) and among the control group (63.3%).These findings harmonizing with Kilic etal.,[11] who reported that sample of study had duration of hypertension is more than 5 years (32.4%).

Regarding daily habits, the finding of the study under hand reveal that more than half of patients among the study group are nonsmokers (56.7%) and (30%) of them are doing exercise. Among the control group, the highest percentage of patients also show that (76.7%) of them are nonsmokers and only (13.3%) of them are doing exercise.

Regarding family history of hypertension, the results of the current study revealed that more of the patients among both groups; the study and control showing that they having a family history of hypertension (70% and 80%). These findings are congruent with Sadeq and Lafta,[13] who found that (63.9%) of a sample they having a family history of hypertension.

Moreover, the finding of the present study show that more of patients are on regular treatment of hypertension (study group= 80% and control group= 73.3%).These findings identical with James,[14] who indicated that duration of taking anti-hypertensive drugs, (45.0%) in the experimental group and (49.2%) in the control group had more than 1 to 5 years duration of taking antihypertensive medicine.

Beside Suffering from other disease, the findings of study underhand reveal that only (46.7%) of the patients among the study group and (40%) among the control group are suffering from other diseases. These results supported with AbdelSalam and El-SayedSoliman, [15] referred that majority of participants (80%) were hypertensive and about two thirds (65%and 66.7%) were diabetic and obese respectively.

The findings of present study reveal the level of patients' knowledge regarding prevention of stroke; the results among the study group report that the patients during the pre-test time showing poor level of knowledge (90%). The level of knowledge is increased during the post-test time to good level among all patients (100%).

These findings in same line with quasi experimental study conducted by Paul ,[16] who found levels of knowledge on prevention of cerebrovascular accident among hypertensive patients during pre-test show more than two third of the patients (71.67%) had inadequate knowledge.

Conclusions

The present study concludes that there is significance need for educational program between (residency, type of family, duration of illness, habits and regularity of hypertension treatment) to prevention serious complication which stroke.

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Conflict of Interest: None to declare.

Ethical Clearance: All experimental protocols were approved under the College of Nursing and all experiments were carried out in accordance with approved guidelines.

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