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STATEMENT OF PROBLEM- EVALUATE THE EFFECTIVENESS OF STRUCTURE TEACHING PROGRAM ON KNOWLEDGE REGARDING MANAGEMENT & PREVENTION OF CVA AMONG ADULT PATIENTS ADMITTED IN HOSPITAL

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ABSTRACT

Introduction: The brain constitutes about one -fiftieth of the body weight and lies within the cranial cavity. The parts of brain are cerebrum, mid-brain, pons, medulla oblongata and cerebellum. Arterial blood supply to brain includes circulus areteriosus and its contributing arteries. It plays a vital role in maintaining a constant supply of oxygen and glucose to brain. Brain receives about 15% of the cardiac output, approximately 750 ml of blood per minutes.[1] In adult, brain represents only 2% of total body weight, but consumes about 20% of the oxygen and glucose used even at rest. Typically an interruption in blood flow for 1 or 2 minutes impairs neuronal function and total deprivation of oxygen for about 4 minutes causes permanent injury. If blood entering the brain has low level of glucose, mental confusion, dizziness, convulsion and loss of consciousness may occur. The most common brain disorder is a cerebrovascular accident, also called a stroke or brain attack.[2] **Objectives:**

1. To assess pre-test knowledge score on prevention of stroke among adult patients.
2. To administer structured teaching program on management &prevention of stroke among adult patients.

3. To assess post test knowledge score on management &prevention of stroke among adult patients.
4. To assess effectiveness of structured teaching program by comparing pre test knowledge score to post test score.
5. To find out association between pre test knowledge score with selected socio demographic variables.

Materials and Methods: In this study evaluative approach with one group pre test post test research design was adopted for this study. Sample under study were 120 who were selected by purposive sampling technique. A structured knowledge questionnaire to assess the knowledge were developed by investigator to explicit information from adult. The content validity of the tool was determined by 5 experts. The value of reliability coefficient was (0.87), which suggested that the tool is found to be reliable. The pilot study done on 12 samples at Udaipur. Thus the feasibility of the study was established. The main study was conducted in Pacific Institute Of Medical Science and American International Institute Of Medical Science, Udaipur. Prior to data collection formal permission was obtained from authorities of college. Based on the objectives and hypotheses the collected data was analyzed by using descriptive and inferential statistics. Data were analyzed for frequency, percentage, mean, mean % standard deviation and association of knowledge and practice with socio-demographic variables. **Results:** Socio demographic data revealed that Majority of respondents (98.44%) were from the age group of 61-65 years of age, Majority (69.16%) of respondents were male. Majority (47.05 %) of respondents was senior secondary, Majority (66.66 %) of respondents was from history of hypertension, for majority (50.83 %) of respondents was Family history of stroke. Mean Pre-test knowledge mean was found 10.75with SD 3.93and mean % 35.83whereas in the post-test mean was found 24.03with SD 3.58and mean % was 80.11.Mean post –test knowledge scores was greater than the mean pre-test knowledge scores ($P < 0.001$). No significant association was found between pretest knowledge scores and selected socio demographic variable. Significant association was found between pretest practice scores and gender of respondents and no significant association was found between pretest practice scores and age, religion, area of residence and source of information. The finding of the study concluded that STP regarding prevention and management of stroke was an effective strategy to improve the knowledge of adult patients.

KEYWORDS: Stroke, thrombosis, knowledge, atrial fibrillation, Adult.

1. INTRODUCTION

The brain constitutes about one -fiftieth of the body weight and lies within the cranial cavity. The parts of brain are cerebrum, mid-brain, pons, medulla oblongata and cerebellum. Arterial blood supply to brain includes circulus areteriosus and its contributing arteries. It plays a vital role in maintaining a constant supply of oxygen and glucose to brain. Brain receives about 15% of the cardiac output, approximately 750 ml of blood per minutes.

In adult, brain represents only 2% of total body weight, but consumes about 20% of the oxygen and glucose used even at rest. Typically an interruption in blood flow for 1 or 2 minutes impairs neuronal function and total deprivation of oxygen for about 4 minutes causes permanent injury. If blood entering the brain has low level of glucose, mental confusion, dizziness, convulsion and loss of consciousness may occur. The most common brain disorder is a cerebrovascular accident, also called a stroke or brain attack.[1]

Cerebrovascular system is highly adaptive. It maintains constant blood flow to the brain in spite of significant changes in the systemic circulation. Blood flow must be maintained at 750 ml per minute(55 ml per kg brain tissue) or 20 percent of the cardiac output to ensure optimum cerebral functioning of blood flow to the brain in totally interrupted cardiac arrest neurologic metabolism is altered in 30 seconds, metabolism stops in 2 minutes and cellular death occurs in 5 minutes. Both intracranial and extra cranial factors are involved in stroke. When an intracranial hemorrhage occur the continuity of the vascular system is interrupted. The lost blood and cerebral edema secondary to the inflammatory contribute to an increase in intracranial pressure. This interferes with cerebral perfusion and carbon dioxide and hydrogen ion concentration increase leading to further dilatation of cerebral vessels and increased intracranial pressure. Atherosclerosis is acommon pathophysiologic process in thrombotic stroke.[5]

Cerebral functions depend on oxygen and glucose delivery to neurons in the brain. The brain cannot store glucose or oxygen so it relies on a constant supply of these nutrients. When a stroke occurs brain cells begin dying immediately. There is an area of brain tissue surrounding the damage called the penumbra, which contains brain cells that are ‘stunned’ and may be revived if the brain is reperfused quickly however they will die if the blood supply is not restored.

2. MATERIAL AND METHODS

A research methodology defines what the activity of researcher is, how to proceed, how to measure progress, and what constitute success. Research methods are the steps, procedure and strategies for gathering and analyzing the data in a research investigation.

RESEARCH APPROACH

Research approach is a systemic, objective method of discovery with empirical evidence and rigorous control. The research approach spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. The control is achieved by holding condition constant and varying only the phenomena under study.[58]

The research approach adopted for the present study was evaluative approach as the study aimed at development of an intervention (structured teaching program) for assessing the knowledge of adult patients in selected hospital at Udaipur. This approach would help the investigator to evaluate the effect of specific intervention that is "Structured Teaching Program" on the variable that is 'knowledgeof adult patients regarding prevention of stroke" in selected hospitalat Udaipur.

RESEARCH DESIGN

It is the overall plan for obtaining answer to the questions being studied and for handling some of the difficulties encountered during the research process.

The term 'research design' refers to the plan or organization of a scientific investigation. Research design helps the researcher in selection of subjects, manipulation of experimental variables, control of extraneous variables, procedure of data collection and the type of statistical analysis to be used to interpret the data. In the present study, pre experimental one group pre testpost test design was selected for the study. The primary objectives of the study were to find the effectiveness of Structured Teaching Program.

The design chosen for the study is presented in the table as:

Table 1:Preexperimental one group pre testpost test research design.

Group	Pre test	Intervention	Post test
	O_1	X	O_2

Key:

O_1 = Assessment of knowledge by pre test.

X = Structured Teaching Program on prevention of stroke among elderly.

O_2 = Assessment of knowledge by post test.

RESEARCH SETTING

It refers to the physical location and conditions in the which data collection takes place in the study. The present study has been conducted in Pacific Institute Of Medical Scienceand American International Institute Of Medical Science at Udaipur.

The selection of the hospitalwas done on the basis of:

- Geographical proximity
- Feasibility of conducting study
- Availability of sample

VARIABLES OF THE STUDY

- **Dependent variable**
  - Dependent variables are the response, behavior or outcome that is predicted on research. Changes in the dependent variable are presumed to be influenced by the independent variable. In this study the dependent variable is knowledge regarding prevention of stroke among adult patients.

- **Independent variable**
  - Independent variables are the cause or influence the dependent variable which is manipulated. In this study independent variable is structured teaching program regarding prevention of stroke among adult patients.

Demographic variable

The demographic variable confound the relationship between the independent and dependent variable and that need to be controlled either through building in research design or through statistical procedure. In this study the selected demographic variables are age, gender, educational level, history of hypertension, family history of stroke, do you know about stroke and source of information about stroke etc.

POPULATION

Population refers to the entire aggregate of individuals or objects having common characteristics. In the present study the population consists of adult patients in Pacific

Institute of Medical Science and American International Institute Of Medical Science at Udaipur.

SAMPLING TECHNIQUE

Sample is used in research when it is not feasible to study the whole population from which it is drawn. The process of sampling makes it possible to accept a generalization to the intended population based on careful observation of variables, within a relatively small proportion of population. In the present study, purposive sampling technique was taken to select 120 adult patients of Pacific Institute of Medical Science and American International Institute Of Medical Scienceat Udaipur.

SAMPLE AND SAMPLE SIZE

Sample consists of a subset of a population selected in a research study. The samples selected for the present study comprises of 120 adult patients from Pacific Institute Of Medical Science and American International Institute Of Medical Science at Udaipur.

3. RESULT AND DISCUSSION

The description of the result is the eternity of a research project which enables the researcher to reduce, summarize, organize, evaluate, interpret and communicate numerical information. In order to find a meaningful answer to the research problem, the data must be processed, analyzed in systemic and some orderly coherent fashion so that the pattern and relationship can be discerned.

HYPOTHESIS

H_1: There will be significant difference between pre test and post test knowledge score regarding prevention of stroke among adult.

H_2: There will be significant association between pre test knowledge score with selected socio demographic variables**.**

PRESENTATION OF THE DATA

The collected data was entered in a master sheet for tabulation and statistical processing. The data is analyzed and interpreted using descriptive and inferential statistics based on the objectives and hypothesis formulated for the present study. The findings are presented under the following headings:

Section I: Description of demographic variables of respondents.

Section II: Findings related to knowledge scores of adult patients on management & prevention of stroke.

Part I: Findings related toArea wise pre test knowledge score of respondentsonprevention of stroke.

Part II: Findings related toArea wise post test knowledge score of respondents on prevention of stroke.

Part III: Findings related toEffectiveness of structured teaching program on prevention of stroke.

Section III: Findings related to association between pre-test knowledge score with selected demographic variables of elderly people.

SECTION I

Description of Demographic Variables of Respondents

This section deals with distribution of demographic variables ofadult patients. The obtained data on sample characteristics were described under the sub-headings of age in years, gender, educational status, history of hypertension, family history of stroke,do you know about stroke and source of information about stroke.

1. Distribution of respondents by Age in years

Majority of respondents 56.67% belongs to the age group of 61 to 65 years, 23.33 % of respondents belongs to age group of 66 to 70 years, 12.50 % of respondents belongs to age group of 71 to 75 years and 7.5% of respondents belongs to age group of above 75 years.

2. Distribution of respondents by Gender

Majority of respondents 69.17 % belongs to male gender and 30.83% of respondents belong to female gender.

3. Distribution of respondents by educational status

Majority of respondents 47.5% belongs to senior secondary education, 23.33 % belong to secondary education, 16.67 % belong to primary education, 9.17% belong to graduate and above and 3.33 % belongs to non formal educational qualification.

4. Distribution of respondents by history of hypertension

Majority of respondents 66.67% have history of hypertension and 33.33 % have no history of hypertension.

5. Distribution of respondents by family history of stroke

Majority of respondents (50.83%) have family history of stroke and 49.17 % of respondents have no family history of stroke.

6. Distribution of respondents by Do you know about stroke

All respondents (100 %) knew about stroke.

7. Distribution of respondents by Source of information about stroke

Majority of respondents 41.67% got source of information through health team member, 35.83% of respondent got source of information through mass media, 11.67% of respondents got source of information through peer group and 10.83% of respondents got source of information through family members.

SECTION II

Findings Relatedto Area Wise Scores Of Adult Patients Regarding Prevention of Stroke

This section deals with analysis and interpretation of collected data to find out theknowledge scores of respondents before and after, giving the intervention on prevention of stroke.

Part I: Findings related toarea wise pre test knowledge score of respondentson prevention of stroke.

Part II: Findings related toarea wise post test knowledge score of respondents on prevention of stroke.

PartIII: Findings related toeffectiveness of Structured Teaching Program by comparing pre test and post test knowledge score of respondents.

Part - I

Table 2: Area wise pre test knowledge score of respondents regardingprevention of stroke.

N=120

Area	Max. score	Mean	Mean %	S.D.
Introduction of brain and stroke	7	53.71	44.76%	4.35
Types, causes and risk factors of stroke	6	49	40.83%	2.31
Signs and symptoms and diagnosis of stroke.	7	40	33.33%	4.75
Prevention of stroke.	10	34	28.33%	9.31
Total	**30**	**10.75**	**35.83**	**3.93**

Table 2 showed that in pre test the mean percentage obtained by the respondents was 44.76 % with SD of 4.35 in the aspect of introduction of brain and stroke, 40.83 % with SD of 2.31 in

the aspect of types, causes and risk factors of stroke. Mean percentage and SD obtained by the respondents was 33.33% with SD of 4.75in the aspect of sign and symptoms and diagnosis of stroke. and mean percentage and SD obtained by the respondents was 28.33% with SD of 9.309 in the aspect of prevention of stroke. The mean percentage of overall knowledge obtained by the respondents is 35.83 % with SD of 3.93.

Part - II

Table 3: Area wise post test knowledge score of respondents regarding prevention of stroke.

N=120

Area	Max score	Mean	Mean %	S.D.
Introduction of brain and stroke	7	110.57	92.14%	12.38
Types, causes and risk factors of stroke	6	107.83	89.86%	7.68
Signs and symptoms and diagnosis of stroke.	7	95.86	79.88%	12.29
Prevention of stroke.	10	78.20	65.17%	6.48
Total	**30**	**24.03**	**80.11**	**3.58**

Table 3 showed that in post test the mean percentage obtained by the respondents was 92. 14% with SD of 12.38 in the aspect of Knowledge regarding brain and stroke, 89.86 % with SD of 7.68 in the aspect of Knowledge regarding types, causes and risk factors of stroke & mean percentage SD obtained by the respondents is 79.88 % with SD of 12.29 in the aspect of Knowledge regarding sign, symptoms and diagnosis of stroke and mean percentage and SD obtained by the respondents is 78.20 with SD of 6.48 in the aspect of knowledge regarding prevention of stroke. The mean percentage of overall knowledge obtained by the respondents is 80.11 % with SD of 3.58.

Table 4: Distribution of elderly people by the level of knowledge.

n=120

Level of knowledge	Frequency		Percentage	
	Pre test	Post test	Pre test	Post test
Inadequate knowledge (0-50%)	110	0	92%	0%
Moderately adequate knowledge (51-75%)	10	54	8%	45%
Adequate knowledge (76-100%)	0	66	0%	55%
Total	**120**	**120**	**100**	**100**

Table 4 showed that in the pre test most of the respondents 92% had no adequate knowledge on prevention of stroke, 8% respondents had moderately adequate knowledge & 00% respondents had adequate knowledge on prevention of stroke.

After giving Structured Teaching Program, in the post test most of the respondents gain adequate knowledge on prevention of stroke that was 55% whereas 45% respondents had moderately adequate knowledge & 0% respondents had inadequate knowledge on prevention of stroke.

Part - III

Table 5: Effectiveness of Structured Teaching Program by comparing pre test and post test knowledge score of respondents.

n= 120

	Mean	Mean %	SD	Enhancement	Enhancement %	df	T value	Inference
Pre Test	10.75	35.83	3.93	13.28	44.28	119	27.10	S
Post test	24.03	80.11	3.58					

S = Significant

Table 5showed that the mean post test knowledge score is 24.03 (80.11%) is greater than the mean pre test knowledge score 10.75 (35.83%). The above table also depicts that the enhancement in the knowledge of respondents is 13.28 (44.28%) supporting the post test knowledge score are higher than the pretest knowledge score. The data further represent that the‘t’ value of 27.10 is significantly higher than the table value 1.65 at 0.05 level of significance. This indicates that there was difference in pre test and post test knowledge score of respondents and Structured Teaching Programis effective in improving the knowledge score of elderly people regarding prevention of stroke.

H_1 - There is a significant difference between the pre and post test knowledge score of elderly people regarding prevention of stroke. Hypothesiswastestedat 0.05 levels. The calculated‘t’ value 27.10 is significantly higher than the table value 1.65 at 0.05 level of significance. This indicates that there is significant difference between the pre test and post test knowledge score hence the research hypothesis**(H_1)** is accepted and proved.

SECTION III

Findings Related To Association Between Pre Test Knowledge Scores With Selected Demographic Variables of Adult Patients

This section deals with analysis and interpretation of the data collected to find out the association between pre test knowledge score with selected demographic variables like Age in years, gender, educational status, and history of hypertension, family history of stroke, do you know about stroke and source of information.

A parametric chi square test is used to describe the association between pre test knowledge score with selectedsocio-demographic variables.

Table 9: Association between pre-test knowledge score with demographic variables such as Age in Year and Gender.

n=120

Variables	Below Median	Median and above median	Total	Df	χ^2	P value (0.5)	Inference
1. Age in Years							
a. 61-65 years	39	29	68	3	13.29	7.82	S
b. 66-70 years	18	10	28				
c. 71-75 years	1	14	15				
d. > 75 years	4	5	9				
Total	**62**	**58**	**120**				
2. Gender							
a. Male	41	42	83	1	0.0056	3.84	NS
b. Female	18	19	37				
Total	**59**	**61**	**120**				

S = Significant NS = Non Significant

The obtained χ2value of age in years (13.29) is higher than tabular value so there is significant association between pre test knowledge score and age in years at df 3 (P <0.5 level).The obtained χ2value ofgender (0.0056) is less than the tabular value which indicates that there is a no significant association between the pre test knowledge score andgender at df of 1 (P <0.5 level).

Table 10: Association between pre-test knowledge score with demographic variables such as educational status and history of hypertension.

n=120

Variables	Below Median	Median and above median	Total	df	χ^2	P Value (0.5)	Inference
3. Educational Status							
Non formal education	2	2	4	4	0.03	9.49	NS
a. Primary education	10	10	20				
b. Secondary education	12	16	28				
Senior secondary education	30	27	**57**				
Graduate and above	5	6	11				
1. Total	**59**	**61**	**120**				
4. History of Hypertension							
a. Yes	41	39	80	1	0.00	3.48	NS
b. No	18	22	40				
Total	**59**	**61**	**120**				

S = Significant NS = Non Significant

The obtained χ2value of educational status (0.030) and history of hypertension (0.00) is less than the tabular value which indicates that there is a no significant association between the pre test knowledge score andeducational status and history of hypertension at df of 4 and 1 respectively (p>0.05 level).

Table 11: Association between pre test knowledge score with demographic variable such as family history of stroke.

Variables	Below Median	Median and above median	Total	df	χ^2	P Value (0.5)	Inference
5. **Family history ofstroke**							
c. Yes	24	37	61	1	4.8	3.84	S
d. No	35	24	59				
Total	**59**	**61**	**120**				

The obtained χ2value of family history of stroke (4.8) is higher than tabular value so there is significant association between pre test knowledge score and family history of stroke at 1 degree of freedom (P <0.5 level).

Table 12: Association between pre test knowledge score with demographic variable such as do you know about stroke.

n=120

Variables	Below Median	Median and above median	Total	df	χ^2	P Value (0.5)	Inference
6. Do you know about stroke							
e. Yes	59	61	120	1	0.00	3.84	NS
f. No	00	00	00				
Total	**59**	**61**	**120**				

The obtained χ2value of do you know about stroke (0.0) is lower than tabular value so there is no significant association between pre test knowledge score and do you know about stroke at 1 degree of freedom(P <0.5 level).

Table 13: Association between pre-test knowledge score with demographic variable such as source of information about stroke.

N=120

Variables	Below Median	Median and above median	Total	Df	χ^2	P Value (0.5)	Inference
7. Source of information about stroke							
a. Mass media	20	23	43	3	.968	7.82	NS
b. Health team member	26	24	50				
Peer group	6	8	14				
c. Family members	5	8	13				
Total	**57**	**63**	**120**				

S = Significant NS = Non Significant

The obtained χ2value of source of information about stroke (.968) is less than the tabular value which indicates that there is a no significant association between the pre test knowledge score andsource of information about stroke at df of 3.(p<.5 level)

There is no significant association is found between knowledge of elderly people and demographic variables such as gender (χ2= 0.00562), educational status (χ2= .030), history of hypertension (χ2= 3.19), do you know about stroke (χ2= 0.00) and source of information about (χ2= .9684) at 0.05 level of significance. Hence the research hypothesis is rejected at 0.05 level of significance. Significant association is found between knowledge of elderly people and demographic variables such as age in years (χ^2= 13.29) and family history of stroke (χ^2= 4.8) at .05 level of significance hence research hypothesis **(H_2)** is accepted and proved.

DISCUSSION

This chapter deals with the discussions in accordance with the objectives of the study and hypothesis. The present study has been undertaken to assess the effectiveness of structured teaching program on prevention of stroke among adult patientsin selected hospitalat Udaipur.

Description of Demographic variables of respondents

Age in years: He majority of the respondents 56.67 %belongs to the age group of 61-65 years, 23.33%of respondents belong to age group of 66-70 years, 12.50 %belongs to the age group of 71-75years and 07%belongs to the age group of > 75 years.

Gender: Majority of respondents 69.17% are males and 30.83% of respondents are females.

Educational status: Themajority of the respondents 47.50% were senior secondary passed, 23.33 % were secondary passed, 16.67 % were primary passed and only 3.33% had taken no formal education.

History of hypertension: 66.67% of respondents have history of hypertension and 33.3% respondents have no history of hypertension.

Family history of stroke: 50.83% of respondents have family history of stroke while 49.17% of respondents have no family history of stroke.

Do you know about stroke: All respondents knew about stroke.

Source of information about stroke: 41.67% of respondents gained information about stroke from health team members, 35.83% from mass media, 11.67% from peer group and 10.83% from family members.

The findings shows that updating of the knowledge on adult patient regarding prevention of stroke is required so as to enable the adult patientto take better care of themselves.

Section II

Pre test knowledge score of adult patient regarding prevention of stroke.

The level of knowledge among adult patient regarding prevention of strokewasassessed in pre-test out of 120 respondents 92 % had inadequate knowledge, 8 % adult patient had moderate knowledge and no adult patient had adequate knowledge on prevention of stroke.

Section III

Post test knowledge score of adult patient regarding prevention of stroke.

The level of knowledge among adult patient regarding prevention of stroke were assessed that in post-test out of 120 respondents 45% had moderate knowledge and 55% had adequate knowledge. The overall mean of pre-test knowledge among adult patient regarding prevention of stroke was 10.75 with standard deviation of 3.93 and mean of post-test was 24.03 with standard deviation of 3.58.

Section IV

Effectiveness of structured teaching program by comparing pre test and post test knowledge scores of adult patientregarding prevention of stroke

The mean score of post test knowledge 24.03 was apparently higher than the mean score of pre-test knowledge 10.75, suggesting that the Structured Teaching Program was effective in increasing the knowledge of the adult patient regarding prevention of stroke. The mean difference 13.28between pre-test and post-test knowledge score of the adult patientwas found to be significant. So research hypothesis (**H_1**) is accepted and proved.

Section V

Association between pre test knowledge score with selected demographic variables of adult patient

There is no significant association between knowledge of adult patientand demographic variables such as gender ($\chi 2$= 0.00562), educational status ($\chi 2$= .030), history of hypertension ($\chi 2$= 3.19), do you know about stroke ($\chi 2$= 0.00) and source of information about ($\chi 2$= .9684) at 0.05 level of significance. Hence the research hypothesis is rejected at 0.05 level of significance. Significant association is found between knowledge of adult patientand demographic variables such as age in years (χ^2= 13.29) and family history of stroke (χ^2= 4.8) at .05 level of significance hence research hypothesis**(H_2)** is accepted and proved.

5. CONCLUSION

This chapter deals with the implications, recommendations and limitations of the study "A study to assess the effectiveness of structured teaching program on knowledge regarding management &prevention of stroke among adult patients at selected hospital at Udaipur".

The following conclusions can be drawn on the basis of the findings

The demographic characteristics of the respondents revealed that -

Age in years: The majority of respondents 56.67% belongs to the age group of 61 to 65 years, 23.33 % of respondents belong to age group of 66 to 70 years, 12.50 % of respondents belong to age group of 71 to 75 years and 7.5% of respondents belongs to age group of above 75 years.

Gender: The majority of respondents 69.17% belongs to male gender and 30.83% of respondents belong to female gender.

Educational status: Themajority of respondents 47.5% belongs to senior secondary education, 23.33% belong to secondary education, 16.67% belong to primary education, 9.17% belong to graduate and above and 3.33% belongs to non formal educational qualification.

History of hypertension: The majority of respondents 66.67% have history of hypertension and 33.33 % have no history of hypertension.

Family history of stroke: The majority of respondents 50.83 % have family history of hypertension and 49.17 % have no family history of hypertension.

Do you know about stroke: All respondents (100 %) knew about stroke.

Source of information about stroke: The majority of respondents 41.67 % got information through health team member, 35.83% of respondent got informationthrough mass media,11.67% of respondents got information through peer group and 10.83% of respondents got information through family members.

Pre test knowledge scores ofadult patients on prevention of stroke

The findings showsthat in pre testthe maximum mean percent obtained by the respondents were 35.83 percent with SD of 3.93which shows that the respondents have inadequate knowledge regarding prevention of stroke among adult

Hence it is necessary for the investigator to improve the knowledge of respondents by giving information about prevention of stroke.

Post test knowledge scores of adult patients on prevention of stroke

The finding shows that in post testthe maximum mean percent obtained by the respondents were80.11 percent with SD of 3.58 which shows a gain in knowledge level of the respondents.

Effectiveness of structured teaching program by comparing pre test and post test knowledge scores of adult patients regarding prevention of stroke

The overall comparison of pre and post test knowledge scores on prevention of stroke shows that the mean post test knowledge score is 24.03 (80.11 Percent) is greater than the mean pre test knowledge score 10.75 (35.83 Percent). The enhancement in the knowledge level of respondents is 13.28indicates gain in knowledge by respondents. The data further represent that the't' value of 27.10 is significantly higher than the table value 1.96 at 0.05 level of significance. This indicates that there was significant difference in pre test and post test knowledge score of respondents and structured teaching program is effective in improving the knowledge level of elderly people on prevention of stroke. Hence research hypothesis **(H_1)** is accepted and proved.

Association between pretest knowledge score with selected demographic variables of adult patients

There is no significant association is found between knowledge of elderly people and demographic variables such as gender ($\chi 2$= 0.00562), educational status ($\chi 2$= .030), history of hypertension ($\chi 2$= 3.19), do you know about stroke ($\chi 2$= 0.00) and source of information about stroke ($\chi 2$=.9684) at 0.05 level of significance. Hence the research hypothesis is rejected. Significant association is found between knowledge of elderly people and demographic variables such as age in years (χ^2= 13.29) and family history of stroke (χ^2= 4.8) at .05 level of significance hence research hypothesis **(H_2)** is accepted and proved.

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