ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24MAR025

A Study was Conducted to Evaluate the Risk Factors Associated with Stroke among Hypertensive Patients Receiving Care at the Medical Outpatient Department (OPD) of HSK Hospital & Research Centre in Navanagar, Bagalkot.

[1.] Yallappa Mali
Community Health Officer
Gersoppa HWC
Honnavara. Uttarkannada

[2.] Varesh Chilapur
Associate Professor and HOD of MSN Dept
SIONS College Navanagar Bagalkote

[3.] Dr. Dileep Natekar
Principal
BVVS, Sajjalashree Institute of Nursing Sciences. Bagalkote.

[4.] Raghavendra Holdur
Nursing Officer MCH Ilkal,

[5.] Devendra Gavari
Assistant Professor Dept of Paediatric Nursing
BES, Bagalkot College of Nursing BAGALKOT

Abstract:- BACKGROUND OF THE STUDY:* Hypertension, characterized by elevated blood pressure, is a major public health concern globally. It is a leading cause of cardiovascular diseases, including stroke. Stroke, a neurological condition, is a significant cause of mortality and disability, especially in low- and middle-income countries. Hypertension is a predominant risk factor for stroke both globally and in our country. Hence, there is a critical need to enhance stroke education, particularly targeting low-income individuals at high risk, through public health campaigns and targeted health education efforts. OBJECTIVES OF THE STUDY: 1. To assess the knowledge of hypertensive patients regarding stroke risk factors and prevention. 2. To determine the association between knowledge scores and selected socio-demographic variables. HYPOTHESIS: H1: There will be a significant association between the knowledge level of hypertensive patients and their socio-demographic variables. CONCEPTUAL FRAMEWORK: This study adopts the health belief model proposed by Becker as its conceptual framework. METHODOLOGY: The research employed a descriptive survey design to assess stroke risk factors among hypertensive patients attending the medical OPD of HSK Hospital & Research Centre in Bagalkot. Non-probability convenient sampling was used to select 100 hypertensive patients for the study. Data collection utilized a structured questionnaire consisting of two sections: Section I focused on socio-demographic variables, while Section II assessed stroke risk factors. RESULTS: The study revealed that hypertensive patients exhibited varying levels of knowledge regarding stroke risk factors. On average, the overall knowledge score was 55.3%. The percentage distribution of hypertensive patients based on their knowledge level showed that 24% had poor knowledge, 50% had average knowledge, and 26% had good knowledge. CONCLUSION: The study identified a significant association between the knowledge level of hypertensive patients and certain socio-demographic characteristics, particularly the source of information. However, no significant associations were found with other variables such as age, gender, education, occupation, and health history. This underscores the importance of targeted health education interventions aimed at improving awareness of stroke risk factors among hypertensive patients.

Keywords:- *Hospital, Hypertensive Patients, Knowledge, Outpatient Department, Risk Factors of Stroke, Study.*

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24MAR025

I. INTRODUCTION

Hypertension, also known as high blood pressure, is a chronic cardiac medical condition characterized by elevated systemic arterial blood pressure. This condition necessitates increased effort from the heart to pump blood throughout the body.[1] Blood pressure is typically measured using two values: systolic and diastolic. A normal blood pressure reading is 120/80 mmHg. Hypertension is broadly classified into primary (essential) hypertension and secondary hypertension, with approximately 90–95% of cases falling under the former category. Primary hypertension can be influenced by medical conditions and lifestyle factors, [2] while secondary hypertension, accounting for the remaining 5–10% of cases, is caused by other systemic conditions. [3]

Hypertension tends to be more prevalent in men compared to women until the age of 45, after which the percentages of men and women with high blood pressure become similar. Women may have a higher risk of developing hypertension after the age of 55, particularly following menopause when estrogen's protective effects decline.

There is a clear association between family history and hypertension, with individuals having a parent, sibling, or grandparent with hypertension being at higher risk. Lifestyle habits such as weight gain, [4] lack of regular physical activity, and chronic, heavy alcohol use are also linked to hypertension. Certain illegal recreational drugs like cocaine, heroin, and methamphetamine can cause sudden spikes in blood pressure, leading to hypertensive emergencies.[5]

A stroke, often referred to as a "brain attack," occurs when blood flow to a specific area of the brain is interrupted, leading to the death of brain cells.[6] Uncontrolled high blood pressure can contribute to stroke by damaging and weakening the brain's blood vessels, leading to narrowing, rupture, or leakage. It can also promote the formation of blood clots in the arteries supplying the brain, potentially resulting in a stroke.[7]

Strokes can be caused by either blocked arteries (ischemic stroke) or the leaking or bursting of blood vessels (hemorrhagic stroke). Some individuals may experience temporary disruptions in blood flow to the brain, known as transient ischemic attacks (TIAs),[8] which do not result in permanent damage.

According to estimates from the World Health Organization (WHO), stroke accounted for a significant number of deaths and first-time events in 2005, with projections indicating a potential increase in these numbers by 2030. Stroke ranks as the second leading cause of preventable death globally and the fourth leading cause of lost productivity,[9] as measured by disability-adjusted life years. Epidemiological studies have shown that the risk factors for stroke and their associations are consistent across different regions worldwide.[10]

II. MATERIAL AND METHOD

In this study, a cross-sectional design was employed to evaluate the risk factors of stroke among hypertensive clients attending the medical OPD of HSK Hospital and Research Centre in Bagalkot, Karnataka. A non-probability convenient sampling technique was utilized to select 100 hypertensive clients attending the medical OPD. Data collection involved the use of an interview schedule with a questionnaire comprising 11 items related to socio-demographic information, including age, gender, educational status, occupation, duration of illness, personal habits, type of diet, previous history of stroke, family income, family history of stroke, and source of information. Additionally, Part II of the questionnaire consisted of 36 closed-ended multiple-choice questions concerning the risk factors of stroke. Each correct answer was assigned a score of one, while a wrong answer received a score of zero, resulting in a total score of 47. A pilot study was conducted to assess the feasibility of the study, and the reliability and validity of the tool were ensured through pre-test methods and consultation with experts. The variables studied included research variables related to the risk factors of stroke and extraneous variables such as age, gender, educational status, occupation, duration of illness, personal habits, type of diet, previous history of stroke, family income, family history of stroke, and source of information.

Data collection took place from February 26, 2020, to March 6, 2020, at the Medical OPD of HSK Hospital and Research Centre Bagalkot, after obtaining permission from the Dean. Ethical clearance was obtained, and consent was obtained from the participants. During data collection, the researcher introduced the study to the participants, explained the procedures, and collected data using the interview schedule with the stroke risk factors questionnaire. Data collection occurred with 10-12 hypertensive clients per day, with each participant taking approximately 15-20 minutes to complete the questionnaire.

For data analysis, descriptive and inferential statistics were employed, including frequency and percentage distribution, mean, mean percentage, standard deviation, chi-square test, Fisher's exact probability test, and linear regression analysis. These analyses aimed to explore the association between the risk factors of stroke among hypertensive clients and their selected socio-demographic variables.

Regarding ethical considerations, permission was obtained from the Principal of Shri B.V.V. Sangha's Sajjalashree Institute of Nursing Sciences, Bagalkot, and the Dean of H.S.K. Hospital and Research Centre, Bagalkot.

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24MAR025

III. RESULT

- Section I: Description of socio-demographic characteristics of sample. Percentage wise distribution of hypertensive clients attending in medical OPD according to their age groups reveals that out of 100 subjects, higher percentage (40%) of hypertensive clients were in the age group of 61 years and above, were (60%) of hypertensive clients are females, (32%) of hypertensive clients have studied secondary education, (36%) of subjects are private employee, (51%) of hypertensive clients have health illness of 9 days, According to their habits it reveals that (48%) of hypertensive clients are not having any bad habit, were(64%) of hypertensive clients are non-vegetarians, (76%) of hypertensive clients not have previous history of stroke, (32%) of hypertensive clients have Rs. 15001-20000,were (60%) of hypertensive clients not have family history of stroke, and according to their Source of information revels out of 100 subjects highest percentage (48%) of hypertensive clients have got information from television.

Table 1 shows the Hypertensive patients domain wise percentage of knowledge on risk factors of stroke. They are having 61% of knowledge on "meaning and concept of stroke", 52.8% of knowledge on "causes and risk factors of stroke management of Hypertension", 55.3% on "sign and symptoms of stroke", 58% on "diagnosis of stroke", 49% on "management of stroke", and they have maximum knowledge in "meaning and concept of stroke" (61%). On an average overall knowledge score on risk factors of stoke among hypertensive clients is 55.3% and mean score of 19.92, SD - 0.7210.

Table 1: Area Wise Percentage of Knowledge of Hypertensive Clients Regarding Risk Factors of Stroke. N=100

Knowledge Area	Number of Questions	Min-Max Score	Knowledge score		% of Mean Score
			Mean Score	SD Score	
Meaning &concept of stroke	10	0-10	6.1	0.25	61%
Causes & risk factors of stroke	10	0-10	5.2	0.24	52.8%
Sign & symptoms of stroke	06	0-6	3.3	0.13	55.3%
Diagnosis of stroke	03	0-3	1.7	0.017	58%
Management of stroke	07	0-7	3.8	0.14	49%
TOTAL	36	0-36	19.9	0.72	55.3%

Table 2 shows the Percentage wise distribution hypertensive clients based on their level of knowledge regarding risk factors of stroke.24% of hypertensive clients having poor knowledge and 50% of the hypertensive clients having average knowledge, 26% of hypertensive clients having good knowledge.

Table 2: Level of Knowledge of Hypertensive Clients Regarding Risk Factors of Stroke. N=100

Level of Knowledge	Frequency of Hypertensive	Patients Percentage%
Poor	**24**	**24%**
Average	**50**	**50 %**
Good	**26**	**26%**
Total	**100**	**100%**

Table 3: It reveals that association between knowledge of hypertensive clients with socio- demographic characteristics. Findings suggest that H1. There is significant association found between level knowledge with socio-demographic characteristics like source of information [x2=8.32, p<0.05], more than table value, accepted. And no significant association found between the other variables, age, gender, education, and occupation, duration of health issue, diet pattern, and previous history of stroke. Monthly income, personal habits, family history of stroke.

Table: 3 Association between Knowledge of Hypertensive Clients Regarding Risk Factors of Stroke with their Socio Demographic Characteristics.

SI NO	Variables	Chi-Square Value (X^2)	DF	Table Value	Significance
1	Age	0.15	3	7.81	Not significant
2	Gender	0.66	1	3.86	Not significant
3	Educational status	4.93	3	7.81	Not significant
4	Occupation	5.7	3	7.81	Not significant
5	Duration of health illness	2.99	3	7.81	Not significant

ISSN No:-2456-2165 https://doi.org/10.38124/ijisrt/IJISRT24MAR025

6	Personal Habits	3.13	3	7.81	Not significant
7	Type of diet pattern	0.69	1	3.86	Not significant
8	Previous history of	3.50	1	3.86	Not significant
9	Monthly income of	4.94	3	7.81	Not significant
10	Family history of Stroke	0.66	1	3.86	Not significant
11	Source of information	8.32	3	7.81	Significant

IV. DISCUSSION

Analysis and interpretation of data collected from 100 hypertensive clients at the medical Outpatient Department (OPD) of H.S.K. Hospital and Research Centre, Navanagar, Bagalkot were conducted using descriptive and inferential statistics. The data were tabulated, analyzed, and interpreted to answer the research questions. The purpose of the analysis was to reduce the data into an intelligible and interpretable form to study the relationship of research problems. The percentage of hypertensive clients based on their level of knowledge regarding risk factors of stroke revealed that 24% had poor knowledge, 50% had average knowledge, and 26% had good knowledge. These findings are supported by a study conducted on the knowledge of stroke risk factors among primary care Korean hypertensive patients visiting tertiary hospitals, which found a similar probability of stroke among hypertensive patients. Another cross-sectional study assessed knowledge of stroke risk factors among individuals diagnosed with hypertension and/or diabetes, revealing that although a majority knew at least one risk factor, specific risk factors were poorly understood. This study is limited to assessing risk factors of stroke among hypertensive patients at the medical OPD of HSK Hospital Bagalkot.

V. CONCLUSION

Chi-square tests were computed to determine the association of knowledge with selected demographic variables. The results revealed a significant association between the level of knowledge and socio-demographic characteristics such as the source of information ($x2= 8.32$, $p<0.05$). No significant association was found between other variables including age, gender, education, occupation, duration of health issues, diet pattern, previous history of stroke, monthly income, personal habits, and family history of stroke.

ACKNOWLEDGMENTS

We express our sincere gratitude to everyone for their valuable guidance and support.

REFERENCES

[1]. Tafseer.A study to assess the effectiveness of structured teaching programme on home care management of hypertension among hypertensive patients in selected urban areas, at bangalore.2011.
[2]. What is High Blood Pressure? Where does it come from? What are the effects? How do you get rid of it?. Yahoo answers. Available from theURL:https://answers.yahoo.com/question/index; ylt=hFY.
[3]. StibichM. Causes and Risk Factors of Hypertension. Medicallyre view edbyaboard-certified physician. 2018 AUG.
[4]. Kearney PM, Whelton M, Reynolds K, Worldwide prevalence of hypertension: A systematic review. J Hypertens. 2018 AUG.
[5]. Reddy KS. Hypertension control: National stroke association. Available from the URL: https://www.stroke.org/understand-stroke/what-is-stroke/.
[6]. What is stroke? National stroke association. Available from the URL: https://www.stroke.org/understand-stroke/what-is-stroke/.
[7]. High blood pressure dangers: Hypertension's effects on your body. By Mayo ClinicStaff.AvailablefromtheURL:https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20045868.
[8]. Pickering TG, James GD, Boddie C, Harshfield GA, Blank S, Laragh JH. How common is white coat hypertension? JAMA.1988;259:255–8.[PubMed][GoogleScholar]
[9]. Stroke.Mayoclinic.AvailablefromtheURL:https://www.mayoclinic.org/diseases-conditions/stroke/symptoms-causes/syc-20350113.
[10]. Kuklina E, Tong X,George M, Bansil P. Epidemiology and prevention of stroke: a worldwide perspective. Author manuscript. 2012 Feb; 12(2): 199–208.
[11]. Singh S, Shankar R,Singh G P. Prevalence and Associated Risk Factors of Hypertension:ACross-SectionalStudyinUrbanVaranasi.IntJHypertens.2017Dec.
[12]. StrokeStatistics.Anindependentwebresourceforinformationaboutstrokecareand research. 1 March 2019.