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A Study to Identify the Risk Factors and Level of Knowledge Regarding Stroke Among Adults in Selected OPD at Tertiary Care Hospital, Puducherry

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Abstract

The aim of the study was to identify the risk factors and level of knowledge regarding stroke among adults in selected OPD at Tertiary Care Hospital, Puducherry. In this study descriptive design was used, consecutive sampling technique was used to select the samples for this study. Data was collected through Structured Questionnaire was used to assess the level of knowledge and checklist was used to identify the risk factors of stroke among participants after the content validity. The gathered data were analyzed by using descriptive and inferential statistics. In this study regarding knowledge on stroke among patients with adults attending OPD and it was founded that majority of them91.1% of them have low risk facor, 7.5% of them have caution to stroke, 0.6% of them have high risk of stroke. 66.3% were having inadequate knowledge 33.1% were having moderate knowledge and 0.6% were having adequate knowledge regarding stroke among adults attending OPD.

Keywords: Stroke, hypertension, Puducherry, Cerebrovascular Accident, demographic variables.

INTRODUCTION

A stroke, medically referred to as a Cerebrovascular Accident (CVA), stands as the leading cause of disability across the globe and ranks as the second leading cause of mortality. One of the most significant risk factors for stroke is hypertension, commonly known as high blood pressure. Statistically, one in every four adults over the age of 25 will experience a stroke at some point in their lives. This year alone, it is projected that 12.2 million individuals worldwide will suffer their first stroke, and tragically, 6.5 million of these cases will result in death [1]. Given the profound impact of stroke on global health, it is crucial for the public to be informed about the risk factors and early warning signs associated with this condition. Awareness can significantly enhance prevention efforts and improve outcomes for those at risk. Several key risk factors contribute to the likelihood of experiencing a stroke. Hypertension tops the list, but other factors include smoking, diabetes, high cholesterol, obesity, physical inactivity, and an unhealthy diet. Age and genetics also play a role, with older adults and those with a family history of stroke being more susceptible. Furthermore, atrial fibrillation, a type of irregular heartbeat, significantly increases the risk of stroke, as does the presence of other cardiovascular diseases. Recognizing the signs and symptoms of a stroke is equally important. The most common indicators can be remembered using the acronym FAST: Face drooping, Arm weakness, Speech difficulties, and Time to call emergency services. Additional symptoms might include sudden confusion, trouble seeing in one or both eyes, severe headache with no known cause, and difficulty walking or

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maintaining balance [2]. Preventive measures are vital in reducing the incidence of stroke. Managing blood pressure is paramount; regular monitoring and medication adherence can significantly lower the risk. Lifestyle changes such as quitting smoking, maintaining a healthy diet, engaging in regular physical activity, and managing weight can also play a critical role in stroke prevention. For those with diabetes, controlling blood sugar levels is crucial. Regular check-ups and managing underlying health conditions like atrial fibrillation and high cholesterol are also essential components of stroke prevention strategies. Public health initiatives aimed at increasing awareness about stroke risk factors and symptoms can help mitigate the global burden of this condition [3]. Educational campaigns, community health programs, and accessible healthcare services are necessary to equip individuals with the knowledge and resources needed to prevent strokes. Early intervention and prompt medical treatment are key to improving outcomes for those who experience a stroke. In conclusion, stroke remains a major global health challenge due to its high incidence and significant impact on disability and mortality rates. Hypertension is a critical risk factor, and managing it, along with other modifiable risks, is essential in reducing the likelihood of stroke. Public awareness and education about stroke symptoms and risk factors can lead to better prevention and quicker treatment, ultimately saving lives and improving quality of life for millions worldwide [4].

STATEMENT OF THE PROBLEM

"A study to identify the risk factors and level of knowledge regarding Stroke among Adults in selected OPD at Tertiary Care Hospital, Puducherry".

OBJECTIVES

1. To identify Risk factors on Stroke among Adults attending in selected OPD.
2. To assess the level of knowledge on Stroke among Adults attending in selected OPD.
3. To associate the risk factors on stroke among adults with selected socio-demographic variables.
4. To associate the level of knowledge on stroke among adults with selected socio-demographic variables [5].

METHODOLOGY

Quantitative research approach with descriptive design was used. The study was conducted in selected OPD at Pondicherry Institute of Medical Sciences, Puducherry. Consecutive sampling technique was used [6].

Development and Description of Tool

The tools consist of two sections.

Section-I. A: It consists of 10 socio Demographic variables, which includes IP NO, Age, Gender, Marital Status, Educational Qualifications, Type of Family, Place of Residency, Habits, Family History of Stroke, Co-morbid condition. As seen in Table 1.

Section-I. B: Clinical Variables

Section-II. A: Checklist to Identify the risk factors of Stroke.

Section-II. B: Modified Stroke Knowledge Assessment Tool, which include 20 structured questions to assess the level on knowledge on warning signs and risk factors of stroke among patients and patient Attenders [7].

The above table describes the socio demographic variables of the study participants. Most of them 69.4% were in age group of 40-55 years, 56.3% of them were males, 97.5% of them were married, 56.9% completed High school and Higher secondary level of education, 71.3% belongs to nuclear family, 58.1% were residing in urban area [8]. as seen in Table 2.

Table 1. Frequency and Distribution of socio demographic variables among Patients with Hypertension according to age, gender, marital status, educational qualification, type of family, place of residence and smoking at PIMS Hospital.

n=100

S.N.	Socio-Demographic Variables	Frequency (f)	Percentage (%)
1	*Age (in years)*		
	21–40 yrs	10	10%
	41–60 yrs	56	56%
	> 60 yrs	34	34%
2	*Gender*		
	Male	55	55%
	Female	45	45%
3	*Marital status*		
	Married and widower	99	99%
	Unmarried	1	1%
4	*Education qualifications*		
	Illiterate	26	26%
	Primary (1-5th standard)	21	21%
	Secondary (6-12 th standard)	42	42%
	University	11	11%
5	*Type of family*		
	Nuclear	54	54%
	Joint	46	46%
6	*Place of residency*		
	Rural	55	55%
	Urban	45	45%
7	*Smoking*		
	Yes	6	6%
	No	94	94%

Table 2. Frequency and Distribution of socio demographic variables among Patients with Hypertension according to regular exercise, diet, family history of stroke, HTN associated co morbidity duration of hypertension, regular treatment at PIMS Hospital

n=100

S.N.	Socio-Demographic Variables	Frequency (f)	Percentage (%)
1	*Regular exercise*		
	Yes	27	27%
	No	73	73%
2	*Diet*		
	Vegetarian	17	17%
	Non-vegetarian	83	83%
3	*Family history of stroke*		
	Yes	12	12%
	No	88	88%

S.N.	Socio-Demographic Variables	Frequency (f)	Percentage (%)
4	*HTN associated co-morbidities*		
	CAD	4	4%
	DM	42	42%
	SLE	1	1%
	THYROID	2	2%
	NO	51	51%
5	*Duration of Hypertension (in month)*		
	1–36 months	35	35%
	37–120 months	51	51%
	> 120 months	14	14%
6	*Regular treatment*		
	Yes	89	89%
	No	11	11%

Table 2 describes the clinical variables of the study participants. Most of them 41.3% have normal systolic (90-120 mm hg), 41.3% of them have normal diastolic (60-80 mm hg). 43.1% of them have pulse rate range from 86-95. 71.9% of them have 98-99% of saturation. 57.5% were comes under Normal BMI (18.5-24.9).

Data Collection Procedure

The researcher got permission from the director Principal and Ethical Committee. written consent obtained from the participant consecutive sampling technique. The sample size was 160 those fulfilled the inclusion criteria as seen in Figure 1. The data was collected by using tools like demographic variables, clinical variables, knowledge questionnaire and the practice check list. Pamphlets were distributed to the clients regarding stroke. The data was analyzed and interpreted by using descriptive and inferential statistics [9]. as seen in Table 3.

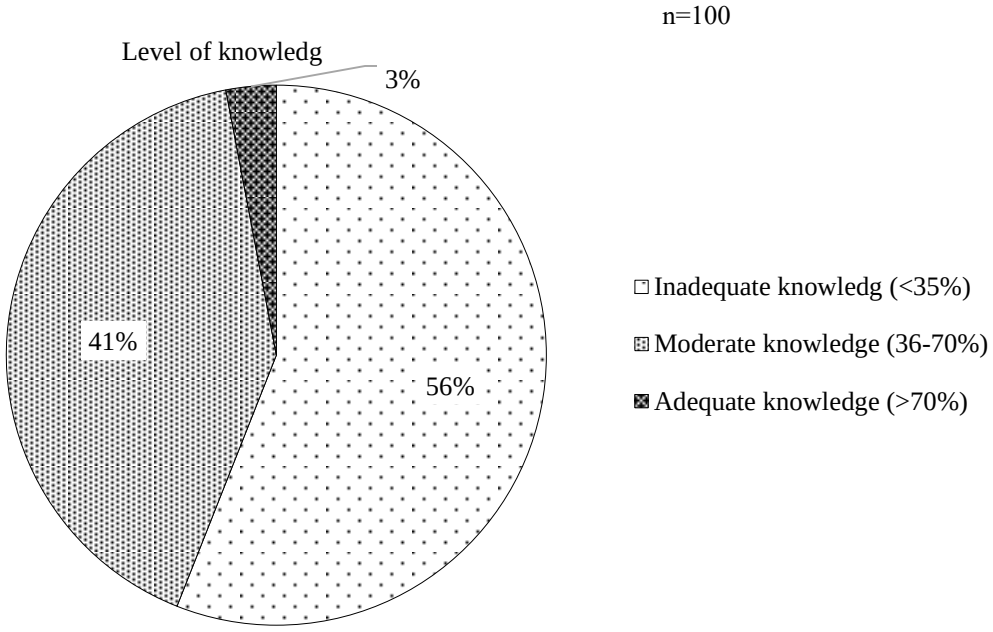

Figure 1. Distribution of level of knowledge among patients with hyertension regarding cerebrovascular accident.

Table 3. Association between Knowledge regarding Cerebrovascular accident among Patients with Hypertension with selected socio demographic variables.

n=100

S.N.	Socio-demographic variables	Inadequate Knowledge		Moderate Knowledge		Adequate Knowledge		p-value
		f	%	f	%	f	%	
1	*Age (in years)*							
	21–40 yrs	2	20	6	60	2	20	0.001 S
	41–60 yrs	29	51.8	27	48.2	0	0	
	> 60 yrs	25	73.5	8	23.5	1	2.9	
2	*Gender*							
	Male	31	56.4	22	40.0	2	3.6	1.0 NS
	Female	25	55.5	19	42.2	1	2.2	
3	*Marital status*							
	Married and widower	50	54.3	39	42.3	3	3.2	0.863 NS
	Unmarried	1	100	0	0	0	0	
4	*Education qualifications*							
	Illiterate	21	80.7	5	19.2	0	0	0 S
	Primary (1–5th standard)	7	27	19	73	0	0	
	Secondary (6-12 th standard)	25	59.5	15	35.7	2	4.7	
	University	3	27.2	7	63.6	1	9.0	
5	*Type of family*							
	Nuclear	28	60.9	16	34.8	2	4.3	0.477 NS
	Joint	28	51.9	25	46.3	1	1.9	
6	*Place of residency*							
	Rural	33	60.0	19	34.5	3	5.5	0.157 NS
	Urban	23	51.1	22	48.9	0	0	
7	*Smoking*							
	Yes	52	55.3	40	42.6	2	2.1	0.139 NS
	No	4	66.7	1	16.7	1	16.7	
8	*Regular exercise*							
	Yes	42	57.5	30	41.1	1	1.4	0.287 NS
	No	14	51.9	11	40.7	2	7.4	
9	*Diet*							
	Vegetarian	47	56.6	33	39.8	3	3.6	0.88 NS
	Non-vegetarian	9	52.9	8	47.1	0	0	
10	*Family history of stroke*							
	Yes	52	59.1	34	38.6	2	2.3	0.11 NS
	No	4	33.3	7	58.3	1	8.3	
11	*HTN associated co-morbidities*							
	Coronary Artery Disease and Wheeze	2	50	2	50	0	0	0.029 S
	Diabetes Mellitus and Cancer	26	61.9	14	33.3	2	4.7	
	Systemic Lupus Erythematous	0	0	0	0	1	100	
	Thyroid	0	0	2	100	0	0	
	No	28	54.9	23	45	0	0	
12	*Duration of Hypertension (in month)*							
	1–36 months	16	45.7	18	51.4	1	2.9	0.338 NS
	37–120 months	33	64.7	16	31.4	2	3.9	
	> 120 months	7	50.0	7	50.0	0	0	
14	*Regular treatment*							
	Yes	6	54.5	5	45.5	0	0	1 NS
	No	50	56.2	36	40.4	3	3.4	

RESULT AND DISCUSSION

Majority of them 91.1% of them have low risk facor, 7.5% of them have caution to stroke, 0.6% of them have high risk of stroke. 66.3% were having inadequate knowledge 33.1% were having moderate knowledge and 0.6% were having adequate knowledge regarding stroke among adults attending OPD. Most of them (69.40%) were in the age group of 40-55 years, (56.30%) were in females, (97.50%) were married, (56.90%) were completed higher secondary level of education, (71%) were nuclear family, (58.10%) were belongs to urban area, (41.3%) were in normal systolic blood pressure,(41.3%) were in normal diastolic blood pressure, (43.10%) were having pulse rate between86-95 beats/minute, (28.13%) were having saturation range form 95-97, (57.50%) were having normal BMI (18.5-24.9) [10].

CONCLUSION

Most adults visiting the Outpatient Department (OPD) exhibit a low risk for developing a stroke. However, a significant number of these individuals have insufficient knowledge about stroke. The current study highlights the critical need for improving the awareness and understanding of stroke among OPD attendees. To address this gap, educational pamphlets were distributed. These pamphlets provided comprehensive information on the definition, causes, signs, and prevention of stroke. The study's findings underscore the importance of educational interventions in healthcare settings. Despite the low immediate risk observed in many adults attending OPD, the potential for future stroke incidents cannot be overlooked, particularly if awareness remains low. Enhancing knowledge about stroke can empower individuals to recognize early symptoms, understand the associated risk factors, and adopt preventive measures.

The distributed pamphlets aimed to educate patients by providing clear and concise information about stroke. They defined what a stroke is, explained the underlying causes such as hypertension, smoking, diabetes, and high cholesterol, and identified common signs and symptoms, which can be remembered through the acronym FAST (Face drooping, Arm weakness, Speech difficulties, and Time to call emergency services). Additionally, the pamphlets included practical advice on stroke prevention, emphasizing lifestyle changes like maintaining a healthy diet, engaging in regular physical activity, managing weight, quitting smoking, and controlling blood pressure and blood sugar levels. By increasing awareness and knowledge through these educational materials, the study aims to equip individuals with the necessary information to make informed health decisions. This proactive approach can lead to better prevention strategies, timely recognition of stroke symptoms, and prompt medical intervention, ultimately reducing the overall incidence of stroke and improving health outcomes. In conclusion, while many adults attending OPD may currently have a low risk of stroke, their lack of knowledge poses a significant concern. Distributing informative pamphlets is a practical and effective measure to enhance awareness and understanding of stroke, thereby contributing to better health management and prevention efforts.

REFERENCE

1. Doris Samal MD; Stefan Greiseneggar, MD the relation between knowledge about hypertension and education in hospitalized patient with CVA in Vienna, AHA journal.org[cited; 8/1/2019] 2006
2. The Burden Of Stroke In Europe Erostat (CVD Statistics, Data extracted provided by Europeian Health Interview Survey [2006 – 2010] ;[cited:27/1/2019].
3. John Joesph Tesha. Knowledge Of Stroke Among Patients with Hypertension In Selected Hospitals In the Tanga Region, Tanzania.2006;[cited:2/8/2019].
4. Kuldeep Kaur, Suresh K. Sharma, Harpreet Jhajj, et al. knowledge and learning needs of hypertensive patient visiting OPD at dme and Ludhiana.Nursing and midwifery research journal [cited; 4/1/2019] jan 2007;3,(1)
5. Kolawole Wahab, Bode Kayode, Omotosho Musa, et al. knowledge of CVA risk factor among patient with hypertension and diabetes attending the outpatient clinic nigerian and tertiary

hospitals American academy of neurology [cited 3/1/2019] april 2012
6. Deepak M. Sabitha Nayak, et al. knowledge of practice regarding first aid measures of stroke among the self help group in selected area of Mangalore with a view to develop information module Nitte University, journal of health science [cited: 2/1/2019] sep 2012;
7. L.liyang J ingyan. Haibin wu.prevalance awareness treatment control and risk factors associated with hypertension among adults in southern china.public library of science. American journals of hypertension.2012;[cited:27/1/2019].25[5]:590-596.https://doi.org/10.1038/ajh.2012.11.
8. Dinesh Neupana Ph.d, Prevalence Of Hypertension In Member Countries Or South Asian Association For Regional Cooperation. Published online. 2014;[cited:28/1/2019].93[13]. doi:10.1097/,md00000000074.
9. Grace Vincent-Onabajo. Jummail. Knowledge of Stroke Risk Factors among Individuals Diagnosed with Hypertension and Diabetes: A Hospital-based Survey, British Journal of Medical and Medical Research2015 ;[cited:27/1/2019]. DOI:10.9734/VJMMR/19865.
10. Saurabh Ram Bihari Lal Shrivastava1.Arun Gangadhar Ghorapade, BLM, An open assess journal. 2015; [cited:27/1/2019]7[3].

