



Research Paper

## A Study to Assess the Level of Knowledge Regarding Health Effects Of Stroke Among Adults Residing At Selected Community Area, Puducherry

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### ABSTRACT:

A stroke is often described as a brain attack and a cerebral accident. It's a medical emergency that occurs when the blood supply to the brain is interrupted. Brain cells start to degenerate in minutes. The main objective of the study to assess the level of knowledge regarding health effects of stroke among adults. The research approach used for this study was quantitative research approach. A descriptive design was adopted for this present study. By using convenient sampling technique, 50 adults were selected for the present study. The present study reveals that majority 32 (64%) of them had inadequate knowledge, 14 (28%) of them had moderate knowledge and 4 (8%) of them had adequate knowledge. The study findings concluded that there is significance association between religion and educational status level of knowledge regarding health effects of stroke among adults with their selected demographic variables where  $p < 0.05$ .

**Keywords:** Stroke, Knowledge, Health affects

### I. INTRODUCTION:

A stroke is often described as a brain attack and a cerebral accident. It's a medical emergency that occurs when the blood supply to the brain is interrupted. Brain cells start to degenerate in minutes. Stroke is a chronic disease that affects people of all races and all generations. It is currently regarded as a worldwide health problem that causes functional impairment and mortality.

According WHO, Globally, stroke is the second leading cause of death and the third leading cause of disability. One in four people are in danger of stroke in their lifetime. Lifestyle risk factors for stroke include being overweight or obese, physical inactivity, tobacco use and alcohol abuse. Medical risk factors include high blood pressure, high cholesterol, diabetes and a personal or family history of stroke or heart attack. An estimated 70% of strokes occur in low- and middle-income countries, which also account for 87% of stroke-related deaths and disability-adjusted life years.

Stroke is one of the common cerebrovascular disorders characterized by an acute clinical episode of focal or global neurological disturbance associated with impairment of cerebral circulation. The burden of stroke is an enormous public health concern worldwide. It is a leading cause of mortality and disability, especially in low-income and middle-income countries.

The Global Burden of Disease Study (GBD) 2019, reported that stroke is the second-leading cause of death and the third-leading cause of death and disability combined worldwide. The same source indicates that age-standardized stroke-related death and disability rates are significantly higher in low-income countries than in high-income countries.

The major modifiable risk factors of stroke are hypertension, cigarette smoking, diabetes, obesity, poor diet, physical inactivity, heart failure, arterial fibrillation, excessive alcohol consumption, and high blood cholesterol. The symptoms of stroke include numbness or weakness on one side of the body, confusion or trouble speaking or difficulty understanding speech, trouble walking or loss of body balance, trouble seeing, and sudden severe headache.

The modifiable risk factors are responsible for 90% of the global burden of stroke with hypertension being the major causal risk factor for the incidence and outcome of stroke. These established risk factors account for a larger part of stroke both in young and older adults with some degree of variations. Type 2 diabetes is among the well-established yet modifiable risk factors of stroke. Individuals with type 2 diabetes have a 1.5 to 3 times increased risk of stroke than those without diabetes.

Consequently, insufficient knowledge of risk factors, warning signs, and urgent therapeutic approach options have been identified as a serious cause of increased mortality and morbidity due to stroke. Similarly, this knowledge deficiency has been identified as one of the significant barriers to accessing quality health care for stroke.

Stroke can be prevented by controlling its risk factors such as diabetes, hypertension, smoking, alcohol use, and drug abuse. Recent evidence suggesting the initiation of early thrombolysis in patients with stroke has added the benchmark in its management strategies. Despite the advanced progression in the therapeutic management of stroke, the burden of the disease is rising day by day as stroke patients fail to seek instant medical attention which results in the poor therapeutic outcomes. Numerous studies have reported that stroke patients get delayed in hospitalization due to the lack of awareness regarding the early recognition of signs and symptoms of the stroke

### **NEED FOR THE STUDY**

According to WHO, The Global Stroke Factsheet released in 2022 reveals that lifetime risk of developing a stroke has increased by 50% over the last 17 years and now 1 in 4 people is estimated to have a stroke in their lifetime. From 1990 to 2019, there has been a 70% increase in stroke incidence, 43% increase in deaths due to stroke, 102% increase in stroke prevalence and 143% increase in Disability Adjusted Life Years (DALY). The most striking feature is that the bulk of the global stroke burden (86% of deaths due to stroke and 89% of DALYs) occur in lower and lower-middle-income countries.

In Sri Lanka, there are no national level data on stroke incidence and the annual health statistics of the Ministry of Health records approximately 60,000 stroke admissions to state hospitals annually with around 4000 deaths in hospitals. Furthermore, stroke which was the 3rd leading cause of hospital deaths in 2014 has now become the 7th leading cause in 2019.

### **NATIONAL LEVEL**

According to the review study by Stephanie P Jones et al. (2022) on the incidence, prevalence of stroke. Studies represented the four cities of Mumbai, Trivandrum, Ludhiana, Kolkata, the state of Punjab, and 12 villages of Baruiapur in the state of West Bengal. The total population denominator was 22,479,509 and 11,654 (mean 1294 SD 1710) people were identified with incident stroke. Crude incidence of stroke ranged from 108 to 172/100,000 people per year, crude prevalence from 26 to 757/100,000 people per year, and one-month case fatality rates from 18% to 42%.

In Tamilnadu, Suresh D et al. (2016) conducted a study on to assess the prevalence of stroke in the Kattankulathur block of Kancheepuram district. The Prevalence of stroke patient in kattankulathur block was  $(257/197596) * 100000 = 130$  per lakh, 1 out of 769 population affected by stroke. Males are more affected than females, left hemiplegics are more than right and hypertension was predominant cause of stroke. The result from this study helps us to assess the rehabilitative need and to estimate the burden on stroke in rural area.

In Puducherry, Jim Litton et al. (2018) made a cross-sectional study of prevalence and determinants of depression among stroke patients. All adult patients with stroke (>40 years) presenting to the emergency medical services (EMS) and department of medicine were enrolled. The prevalence of severe depression in this study was 47%. Milder form of depression was found in 53% of the subjects. Of the total population studied, statistically significant severe depression was associated with patients who had lesion on left hemisphere.

The investigator during community posting felt that most of the adult in community area not aware of the stroke. Lack of awareness may to lead to serious health effects and complications. So, the investigator selected to assess the level of knowledge regarding health effects of stroke among adults residing at selected community area, Puducherry.

### **STATEMENT OF THE PROBLEM**

A study to assess the level of knowledge regarding health effects of stroke among adults residing at selected community area, Puducherry

### **OBJECTIVES OF THE STUDY**

- To assess the level of knowledge regarding health effects of stroke among adults.
- To find out the association between the level of knowledge regarding health effects of stroke among adults with their selected demographic variables.

## II. RESEARCH METHODOLOGY:

### RESEARCH APPROACH:

A quantitative research approach was adopted for the present study.

### RESEARCH DESIGN:

A descriptive design was adopted for the present study.

### SETTING OF THE STUDY:

The present study was conducted in Vinayagampet, Puducherry.

### POPULATION:

The study population comprised of all the adults residing in selected Vinayagampet, Puducherry.

### SAMPLE:

The sample of the study consists of all the adults residing in Vinayagampet, Puducherry, who meet the inclusion criteria

### SAMPLE SIZE:

The sample size consists of 50 adults residing in selected Vinayagampet, Puducherry

### SAMPLE TECHNIQUE:

A convenient sampling technique was used to select the sample for the present study.

### SAMPLE SELECTION CRITERIA:

#### Inclusion criteria:

- Adults residing in selected community area.
- Adults who were present during the data collection.
- Adults who could speak Tamil / English.

#### Exclusion criteria:

- Adults who were not willing to participate in this study.

## MAJOR FINDING

Regarding the age, the majority 22 (44%) were in the age group of 25-35 years, 19(38%) were in the age group of 35-50 years and 9 (18%) were in the age group of 50-60 years. With regards to gender, majority 33 (66%) were female and 17 (34%) were male. In the aspect of religion majority, 47 (94%) were Hindu, 3 (6%) were Christian. With regards to residence area, majority 42 (84%) were in urban area and 8 (16%) were in rural area. In the aspect of education status, the data shows majority 21(42%) were completed high school and 12 (24%) were completed graduate. Regarding income per month, the data shows that the majority 20 (40%) come under Rs5000 to Rs.10000, 17 (34%) were come under Rs. 15000/- to Rs15000/- and 13 (26%) were below Rs5000. With regards to marital status majority, 33 (66%) were married and 17(34%) were unmarried. In the aspect of type of family, 28 (56%) were in nuclear family and 22 (44%) were in joint family. In the aspect of occupation status majority, 23 (46%) were farmer, 17 (34%) were private employee and 10 (20%) were unemployed.

## III. RESULTS AND DISCUSSION

The study was conducted study to assess the level of knowledge regarding health effects of stroke among adults residing at selected community area, Puducherry. The table 1 reveals the Distribution of the level of knowledge regarding health effects of stroke among adults. The finding shows that majority 32 (64%) of them had inadequate knowledge, 14 (28%) of them had moderate knowledge and 4 (8%) of them had adequate knowledge.

The table 2 shows that shows that there is significance association between religion and educational status level of knowledge regarding health effects of stroke among adults with their selected demographic variables where  $p < 0.05$ . There is no significance association between Age, gender, religion, residence area, educational qualification, Monthly Income, marital status, number of children, type of family and occupation.

**Table 1: Distribution of the level of knowledge regarding health effects of stroke among adults.**

**N=50**

S.NO	LEVEL OF KNOWLEDGE	FREQUENCY (n)	PERCENTAGE %
1.	Inadequate	32	64%
2.	Moderate	14	28%
3.	Adequate	4	8%

Figure 1: Percentage wise distribution of level of knowledge regarding health effects of stroke among adults.

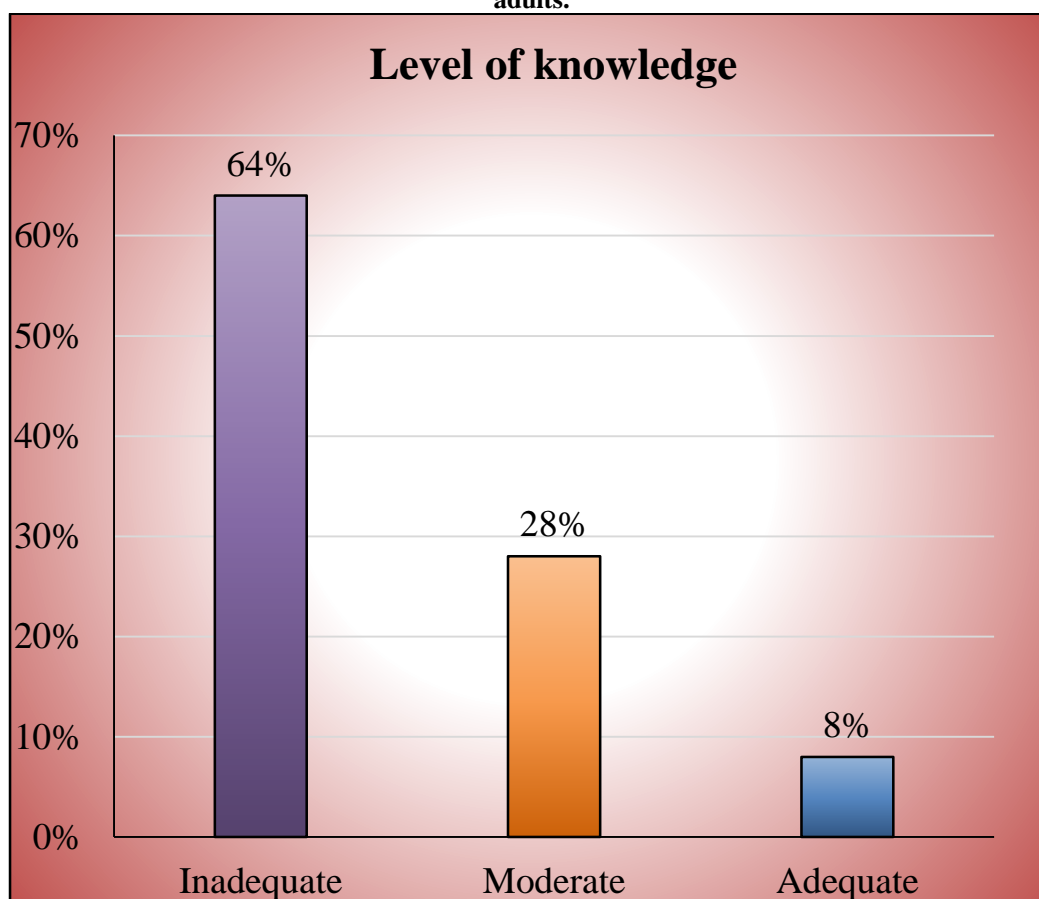


Table 2: Association of the level of knowledge regarding health effects of stroke among adults with their selected demographic variables. N = 50

S.No	Demographic variables	LEVEL OF KNOWLEDGE						X <sup>2</sup> value
		Adequate		Inadequate		Moderate		
1	Age in years	N	%	N	%	N	%	X <sup>2</sup> = 15.443 P= 0.004 (NS)
	a) Below 20 years	0	0	0	0	0	0	
	b) 25 -35 years	4	8	8	16	10	20	
	c) 35- 50 years	0	0	15	30	4	8	
	d) 50 – 60 years	0	0	9	18	0	0	
2.	Gender							X <sup>2</sup> = 0.742 p = 0.690 (NS)
	a) Male	1	2	10	20	6	12	
	b) Female	3	6	22	44	8	16	
3.	Religion							X <sup>2</sup> = 8.207 p = 0.017 (S)*
	a) Hindu	4	8	32	64	11	22	
	b) Muslim	0	0	0	0	0	0	
	c) Chirstian	0	0	0	0	3	6	
	d) Others	0	0	0	0	0	0	
4.	Residence area							X <sup>2</sup> = 0.840 p = 0.657 (NS)
	a) Rural	1	2	4	8	3	6	
	b) Urban	3	6	28	56	11	22	
5.	Educational qualification							

	a)	Primary School	0	0	7	14	0	0	X <sup>2</sup> = 30.859 p = 0.000 (S)*
	b)	High school	0	0	14	28	7	14	
	c)	Graduate	4	8	1	2	7	14	
	d)	Illiterate	0	0	10	20	0	0	
<b>6.</b>		<b>Monthly income</b>							X <sup>2</sup> = 4.002 p = 0.406 (NS)
	a)	Below 5,000	2	4	8	16	3	6	
	b)	5,000 -10,000	0	0	15	30	5	10	
	c)	10,000 - 15,000	2	4	9	18	6	12	
	d)	Above 20,000	0	0	0	0	0	0	
<b>7.</b>		<b>Marital Status</b>							X <sup>2</sup> = 0.642 p = 0.725 (NS)
	a)	Married	2	4	21	42	10	20	
	b)	Unmarried	2	4	11	22	4	8	
<b>8.</b>		<b>Number of children</b>							X <sup>2</sup> = 6.456 p = 0.374 (NS)
	a)	One	1	2	4	8	1	2	
	b)	Two	2	4	23	46	11	22	
	c)	Three and above	1	2	5	10	2	4	
<b>9.</b>		<b>Type of family</b>							X <sup>2</sup> = 0.1715 p = 0.424 (NS)
	a)	Nuclear	1	2	19	38	8	16	
	b)	Joint	3	6	13	26	6	12	
<b>10.</b>		<b>Occupation</b>							X <sup>2</sup> = 2.445 p = 0.654 (NS)
	a)	Farmer	2	4	13	26	8	16	
	b)	Private employee	2	4	11	22	4	8	
	c)	Government employee	0	0	0	0	0	0	
	d)	Unemployed	0	0	8	16	2	4	

\*p<0.05 - Significant; p<0.01 - Highly Significant K= constant

#### IV. CONCLUSION:

The present study assessed the level of knowledge regarding health effects of stroke among adults residing at selected community area, Puducherry. The study findings concluded that there is significance association between religion and educational status level of knowledge regarding health effects of stroke among adults with their selected demographic variables where p<0.05.

#### V. RECOMMENDATIONS:

- Same study can be conducted with large samples.
- Same study can be conducted in community area among public.

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