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To assess knowledge and attitude regarding prevention and management of stroke among adults from selected areas of Mysore

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Abstract

Background: Stroke is a condition in which sudden impairment of brain function develop resulting from a substantial reduction in blood flow to the brain or from intracranial bleeding. Stroke is one of the leading causes of death worldwide and is one of the biggest health challenges in the 21st century.

Objectives: To assess the knowledge and attitude of adults regarding prevention and management of strokes and to find an association between pretest level of knowledge and attitude regarding prevention and management of strokes with their selected socio demographic variables.

Methodology: A quantitative approach with exploratory descriptive survey design was adopted for the study. The samples from the selected areas of Mysuru were selected using convenient sampling technique. The sample consisted of 50 adults. The tools used for data collection was knowledge questionnaire and structured attitude scale.

Results: The study result reveal that, With respect to knowledge scores, the participants knowledge mean was 25.24, median was 26, mode was 16 with standard deviation 7.85 and score range was 12-43. Majority 34 (68%) of participants were had moderate level of knowledge, 11 (22%) of participants were had poor level of knowledge and remaining 5 (10%) of participants were had good level of knowledge. With respect to attitude, mean was 37.74, median was 37.50, mode was 26 with standard deviation 10.74 and score range was 22-65. majority 27 (74%) of participants were had favorable attitude, 19 (38%) of participants were had non favorable attitude and remaining 4 (8%) of participants were had positive attitude. association between levels of knowledge of participants regarding prevention and management of strokes is found to be statistically significant at 0.05 levels for participant's sources of knowledge.

Conclusion: There is a need for the education for the general public related to prevention of communicable disease like stroke. The disease by and large can be prevented by making simple changes in the way people live their lives or simply by changing their lifestyle by educating them through different educational methods.

Keywords: Knowledge, attitude, prevention and management, stroke, adults

Introduction

Stroke is a condition in which sudden impairment of brain function develop resulting from a substantial reduction in blood flow to the brain or from intracranial bleeding. Stroke is one of the leading causes of death worldwide and is one of the biggest health challenges in the 21st century.

Stroke is the third leading cause of death in the United States. Many survivors are left with mental and physical impairment and require assistance with activities of daily living. Twenty-eight percent of patients with stroke are under 65 years of age, and women account for 40 percent of the new cases.

Stroke is also a leading cause of functional impairments Strokes can occur at any age. One fourth of strokes occur in people under the age of 65. It is a life-changing event that affects not only the person who may be disabled, but the entire family and other caregivers as well.

Globalization and industrialization witnessed over the last two decades have influenced lifestyles of people particularly in developing countries. The increasing burden of stroke is because of the demographic transitions that have resulted in increase in the population of the elderly as well as rapid western cultural adaptation including sedentary lifestyle, deleterious health behaviour like consumption of high fat/cholesterol diet, alcohol and smoking. These have accelerated key vascular risk factors for cardiovascular disease and stroke such as hypertension, diabetes, hypercholesterolemia, sedentary lifestyle, obesity, heavy alcohol ingestion and smoking.

Stroke is the second leading cause of death and leading cause of adult disability worldwide with 400-800 strokes per 100,000, 15 million new acute strokes every year, 28,500,000 disability adjusted life-years and 28-30 day case fatality ranging from 17% to 35%. The cumulative incidence of stroke ranged from 105 to 152/100,000 persons per year, and the crude prevalence of stroke ranged from 44.29 to 559/100,000 persons in different parts of the country during the past decade.

Objectives
1. To assess the knowledge and attitude of adults regarding prevention and management of strokes
2. To find an association between pretest level of knowledge and attitude regarding prevention and management of strokes with their selected socio demographic variables.

Hypothesis
H₀₁: There is no statistical significant association between levels of knowledge of adults regarding prevention and management of strokes and their selected socio demographic variables.

H₀₂: There is no statistical significant association between levels of attitude of adults regarding prevention and management of strokes and their selected socio demographic variables.

Methodology
- **Research Approach:** Quantitative Research Approach
- **Research Design:** Exploratory descriptive design.
- **Sampling technique:** Non-Probability; Convenient Sampling Technique.
- **Sample size:** 50.
- **Setting of study:** Selected areas of Mysuru.
- **Method of data collection:** Interview technique.

Tools Used
Section I: Socio-demographic variables of Participants
Section II: Structured Knowledge questionnaire
Structured knowledge consisted of 51 multiple choice questions related to prevention and management of strokes. There were four alternative answers, from which the participants have to choose one best option by encircling it. The total knowledge scores ranged from 0-51. The score is further divided arbitrarily as follows; Poor knowledge (<17), Average knowledge (18-34), Good knowledge (>34).

Section III: Structured attitude scale
A structured attitude scale consisted of 14 statements regarding prevention and management of strokes. There are five alternative response columns; strongly agree, agree, uncertain, disagree and strongly disagree. The total score ranged from 14 to 70. The score is further divided arbitrarily as follows; Non favorable attitude (14-33), Favorable attitude (34-52), Positive attitude (53-70).

Procedure of data collection
Data was collected after obtaining administrative permission from health authority of selected areas of Mysuru. The investigator personally explained the participants the need and assured them of the confidentiality of their responses. Data was collected by face to face interview by researcher. The data analysis was done by using both descriptive and inferential statistics.

Results
The findings related to socio-demographic variables of participants
Study comprised of 50 participants. The socio demographic variables are presented in following table 1.

Table 1: Frequency & Percentage Distribution of participants according to socio demographic variables n=50

Sl. No.	Demographic variables		Frequency (f)	Percentage (%)
	Age (In Yrs.)			
1.	a)	21-30	26	52
	b)	31-40	17	34
	c)	41-50	07	14
	Religion			
2.	a)	Hindu	26	52
	b)	Muslim	19	38
	c)	Christian	04	08
	d)	Others	01	02
	Educational status			
3.	a)	≤ Lower primary school	11	22
	b)	High school	18	36
	c)	PUC	17	34
	d)	≥ Diploma and Degree	04	08
	Occupational status			
4.	a)	Govt/Private job	26	52
	b)	Agricultural work	07	14
	c)	Business	12	24
	d)	Others	05	10
	Source of information			
5.	a)	Books/Magazines	11	22
	b)	Mass media	15	30
	c)	Health care workers	17	34
	d)	Friends	07	14
	Family member suffering with stroke			
6.	a)	Yes	06	12
	b)	No	44	88
	Previous exposure to educational program related to stroke			
7.	a)	Yes	34	68
	b)	No	16	32

Findings Related to Knowledge on prevention and management of strokes

Table 2: Mean, median, mode, standard deviation and range of knowledge scores of participants n = 50

Total scores	Mean	Median	Mode	Standard deviation	Range
0-51	25.24	26	16	7.85	12-43

Table 2 reveals knowledge score of participants regarding prevention and management of strokes, it shows that, the participants knowledge mean was 25.24, median was 26, mode was 16 with standard deviation 7.85 and score range was 12-43.

Level of Knowledge

Table 3: Frequency and Percentage distribution of participants according to level of Knowledge regarding prevention and management of strokes, n=50

Level of knowledge		
Poor f (%)	Moderate f (%)	Good f (%)
11 (22%)	34 (68%)	5 (10%)

The data presented in the Table 3 depicts the participants level of knowledge regarding prevention and management of strokes, it reveals that; majority 34 (68%) of participants were had moderate level of knowledge, 11 (22%) of participants were had poor level of knowledge and remaining 5 (10%) of participants were had good level of knowledge.
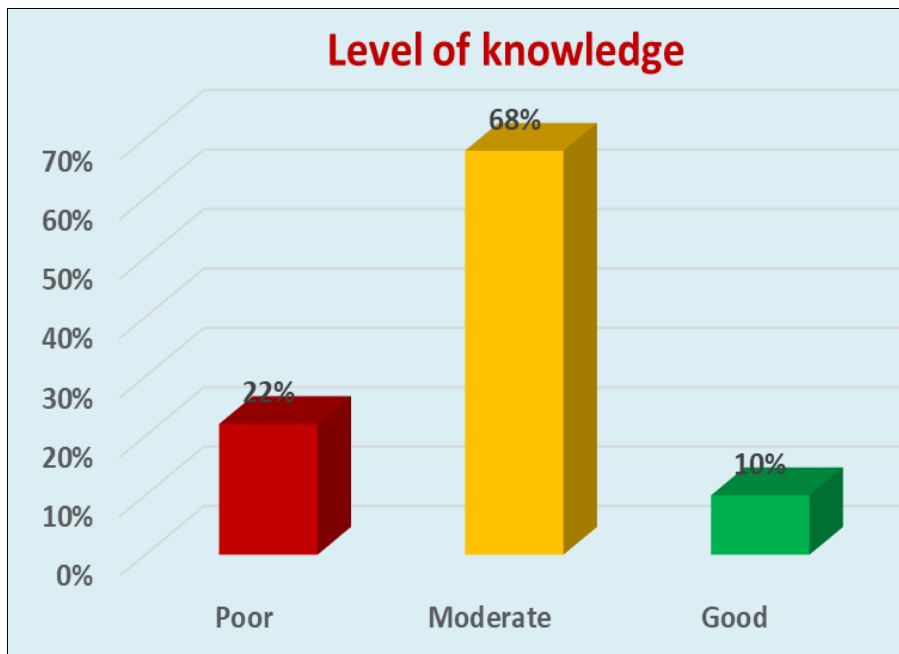
Fig 1: Levels of knowledge among participants

Findings Related to Attitude on prevention and management of strokes

Table 4: Mean, median, mode, standard deviation and range of attitude scores of participants n = 50

Total scores	Mean	Median	Mode	Standard deviation	Range
14-70	37.74	37.50	26	10.74	22-65

Table 4 reveals attitude score of participants regarding prevention and management of strokes, it shows that, the participants attitude mean was 37.74, median was 37.50, mode was 26 with standard deviation 10.74 and score range was 22-65.
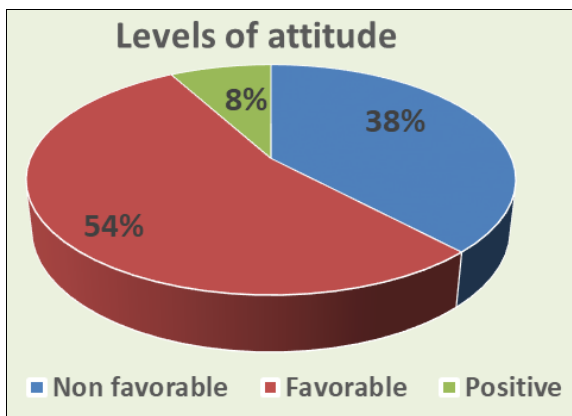
Level of Attitude

Table 5: Frequency and Percentage distribution of participants according to level of Attitude regarding prevention and management of strokes, n=50

Level of attitude		
Non favorable f (%)	Favorable f (%)	Positive f (%)
19 (38%)	27 (54%)	4 (8%)

The data presented in the Table 5 depicts the participants level of attitude regarding prevention and management of strokes, it reveals that; majority 27 (74%) of participants were had favorable attitude, 19 (38%) of participants were had non favorable attitude and remaining 4 (8%) of participants were had positive attitude.

Fig 2: Levels of attitude among participants

Findings Related Association between levels of knowledge and attitude with selected socio demographic variables of participants Knowledge
Computed Chi-square value for association between levels of knowledge of participants regarding prevention and management of strokes is found to be statistically significant at 0.05 levels for participant's sources of knowledge and not found statistically significant for other selected socio demographic variables. Hence null hypothesis H_{01} is partially accepted indicating significant statistical association between level of knowledge among participants and their sources of knowledge.

Attitude
Computed Chi-square value for association between levels of attitude of participants regarding prevention and management of strokes is not found statistically significant for any of the selected socio demographic variables. Hence null hypothesis H_{02} is accepted indicating no significant statistical association between level of attitude of participants and their selected socio demographic variables.

Conclusion
The findings revealed that adults were had moderate level of knowledge and favorable attitude towards prevention and management of strokes. This suggests that, there is a need for the education for the general public related to non-communicable disorders like stroke. The disease by and large can be prevented by making simple changes in the way people live their lives or simply by changing their lifestyle by educating them through different educational methods.

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