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A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND AWARENESS REGARDING STROKE AMONG ADULTS IN A SELECTED HOSPITAL

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ABSTRACT

Background: Stroke is the second leading cause of death worldwide and a major cause of disability in India**.** Stroke is a major neurological disorder and an important cause of mortality and long-term disability worldwide. Many of the major risk factors for stroke are preventable or controllable, while early recognition of stroke warning signs can facilitate timely medical care. Assessing knowledge and awareness among adults is therefore important for identifying educational needs and strengthening stroke prevention practices. **Aim:** The present study aimed to assess the level of knowledge and awareness regarding stroke among adults in a selected hospital. **Methods:** A descriptive research design was adopted for the study. The study was conducted among 100 adults aged 18 years and above in a selected government hospital at Virudhunagar. Participants were selected using a non-probability convenience sampling technique. Data were collected using a structured questionnaire consisting of three sections: demographic variables, knowledge regarding stroke, and awareness of early symptoms of stroke. Data were collected through the interview method. Descriptive statistics, including frequency and percentage, were used to summarize the findings. The chi-square test was used to assess the association between awareness regarding stroke and selected demographic variables. **Results:** Among the 100 participants, 55(55%) had adequate knowledge regarding stroke, 40(40%) had moderate knowledge and 5(5%) had inadequate knowledge. Regarding awareness, 54(54%) participants had good awareness, 41(41%) had moderate awareness and 5(5%) had poor awareness. The findings indicate that the majority of adults had adequate knowledge and good awareness regarding stroke; however, a considerable proportion had only moderate levels of knowledge and awareness. **Conclusion:** The study findings demonstrate that although most adults had adequate knowledge and good awareness regarding stroke, gaps in knowledge and awareness remain among a substantial proportion of participants. Regular health education and community-based awareness programmes focusing on stroke risk factors, warning signs, prevention and the importance of timely medical care may help strengthen stroke-related knowledge and promote appropriate health-seeking behaviours.

KEYWORDS

Stroke, Knowledge, Awareness, Adults and Stroke prevention.

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INTRODUCTION

Stroke is a major neurological disorder and an important public health problem worldwide. It occurs when the blood supply to a part of the brain is interrupted or when a blood vessel in the brain

ruptures, resulting in damage to brain tissue. Stroke can lead to death as well as long-term disabilities affecting movement, speech, vision, cognition and the ability to perform daily activities. The World Health Organization identifies stroke among the leading causes of death globally[1].

The burden of stroke is substantial in low and middle-income countries, including India. Epidemiological evidence indicates that stroke has become an important cause of mortality and disability in India. A systematic review of stroke epidemiology in India reported considerable variation in incidence, prevalence and case fatality across different regions, highlighting the need for reliable data and effective stroke prevention and services[2].

Stroke is associated with several modifiable and non-modifiable risk factors. Important modifiable risk factors include hypertension, diabetes mellitus, dyslipidaemia, tobacco use, physical inactivity, unhealthy diet, obesity and certain cardiac conditions. Age and genetic factors are among the non-modifiable risk factors. Appropriate identification and management of these risk factors can contribute to the prevention of stroke[3].

Awareness of stroke warning signs and risk factors is important for individuals and families. Recognizing symptoms such as sudden weakness or numbness, difficulty speaking, difficulty walking, visual disturbances and severe headache can help individuals seek appropriate medical attention promptly. The American Heart Association/American Stroke Association emphasizes that knowledge of stroke warning signs and risk factors is an important component of stroke prevention and early recognition[4].

The prevention of stroke requires attention to both individual and community-level factors. The 2024 American Heart Association/American Stroke Association guideline emphasizes regular assessment of cardiovascular risk factors, blood-pressure control, healthy dietary practices, physical activity and other lifestyle measures as important components of primary stroke prevention.

Therefore, assessing the level of knowledge and awareness regarding stroke among adults is important for identifying existing information gaps and planning appropriate health education. The present study was undertaken to assess the knowledge and awareness regarding stroke among adults in a selected hospital.

NEED FOR THE STUDY

Stroke represents a major health challenge because of its potential to cause death, disability and long-term dependence. The global burden of stroke remains considerable, and stroke continues to be one of the leading causes of death worldwide[1].

The problem is particularly relevant to India, where the burden of stroke is increasing. A systematic review of stroke studies in India reported crude stroke incidence ranging from 108 to 172 per 100,000 persons per year, prevalence ranging from 26 to 757 per 100,000 persons per year and one-month case-fatality rates ranging from 18% to 42% across the studies reviewed. The authors emphasized the need for better evidence to guide stroke policies and services in India[2].

The increasing burden of stroke is associated with the presence of modifiable risk factors such as hypertension, diabetes, obesity, physical inactivity, tobacco use and unhealthy lifestyle practices. Recent evidence concerning India has also highlighted the growing importance of these risk factors and the occurrence of stroke among younger adults[3].

Knowledge regarding stroke risk factors is important because several major risk factors are potentially preventable or controllable. The 2024 American Heart Association/American Stroke Association guideline recommends assessment and management of risk factors including blood pressure, blood glucose, cholesterol, obesity, physical inactivity and unhealthy lifestyle behaviours as part of primary stroke prevention[4].

Awareness of the warning signs of stroke is equally important. Individuals who can recognize sudden neurological symptoms and understand the importance of seeking immediate medical care may be better prepared to respond appropriately when stroke symptoms occur. The American Heart Association specifically emphasizes education regarding stroke warning signs and the use of the

F.A.S.T. approach for recognizing possible stroke symptoms[5].

In the hospital setting, nurses have an important role in providing health education to adults and families regarding stroke risk factors, warning signs, prevention and appropriate health-seeking behaviour. Assessment of existing knowledge and awareness provides a baseline for identifying educational needs and developing suitable health education programmes.Hence the researcher selected the study to assess the knowledge and awareness about stroke among public.

STATEMENT OF THE PROBLEM

"A descriptive study to assess the knowledge and awareness regarding stroke among adults in a selected hospital."

Objective of the study

To assess the knowledge and awareness regarding stroke among adults in a selected hospital.

Operational definitions

Knowledge and Awareness: In this study, it refers to ability to know about the stroke and recognize awareness about the stroke which was assessed by questionnaire.

Stroke

Sudden interruption of blood flow to the brain leading to neurological deficits.

Adults

In this study,adults refers to individuals aged 18 years and above.

Projected outcome

This study will help to identify knowledge and awareness regarding stroke among adults in a selected hospital."

Limitations

Limited to one hospital.

Responses may be influenced by participants' understanding.

The study includes only adults above 18 years.

RESEARCH METHODOLOGY

Research design

Descriptive research design.

Setting of the study

A selected government hospital at Virudhunagar.

Population

Adults aged 18 years and above coming to the hospital.

Sample size

100 adults

Sampling technique

Non-probability convenience sampling technique

Criteria of selection of sample

Inclusion criteria

Adults who

Understand Tamil and English

Are willing to participate is the age of 18 years and above are available at the period of data collection.

Exclusion criteria

Adults who are unable to communicate effectively are critically ill had treatment for stroke already

Data collection tool

A structured questionnaire consisting of:

Section A: Demographic variables

Section B: Knowledge questions about stroke

Section C: Awareness of early symptoms

Data collection method

Formal permission was obtained from the higher authority. The participants were selected based on the inclusion criteria. Participants were seated comfortably, and the questionnaire was distributed to the participants. All the data was collected by the interview method from the participants after 15minutes.

Data analysis

Descriptive statistics

Mean, percentage, frequency

Inferential statistics

Chi-square test was used to find association between awareness and demographic variables.

The findings were organized in the following sections:

Section 1: Distribution of samples regarding demographic variables

Section 2: Distribution of samples regarding knowledge of stroke

Section 3: Distribution of samples regarding awareness of stroke

Table No.1 depicts the distribution of the samples according to their demographic variables. Regarding age, the majority of the samples, 44(44%), were in

the age group of 18-30 years, followed by 22(22%) who were above 50 years, 17(17%) were in the age group of 31-40 years, and 17(17%) were in the age group of 41-50 years.

With regard to gender, 53(53%) of the samples were male and 47(47%) were female.

Regarding educational status, 43(43%) of the samples were graduates and above, 24(24%) had primary education, 20(20%) had secondary education and 13(13%) had no formal education.

With respect to occupation, 34(34%) of the samples were unemployed, 32(32%) were private employees, 29(29%) were self-employed and 5(5%) were government employees.

Regarding monthly income, 37(37%) of the samples had a monthly income of less than ₹10,000, 22(22%) had an income of ₹20,001-₹30,000, 21(21%) had an income of ₹10,001-₹20,000 and 20(20%) had an income of more than ₹30,000.

Regarding type of family, the majority of the samples, 85(85%), belonged to nuclear families, whereas 15(15%) belonged to joint families.

With regard to place of residence, 72(72%) of the samples were residing in urban areas, whereas 28(28%) were residing in rural areas.

Regarding the source of health information, 56(56%) of the samples obtained health information through media, followed by 20(20%) through health professionals, 18(18%) through friends and 6(6%) reported having no source of health information.

Regarding marital status, 62(62%) of the samples were married, 18(18%) were unmarried, 16(16%) were widowed and 4(4%) were divorced.

With regard to socioeconomic status, the majority of the samples, 89(89%), were above the poverty line, whereas 11(11%) were below the poverty line.

Overall, the demographic findings indicate that the majority of the samples were aged 18–30 years, male, graduates and above, unemployed, belonged to nuclear families, resided in urban areas, obtained health information through media, were married and were above the poverty line.

Table No.2 depicts the distribution of samples according to their level of knowledge regarding stroke. The findings revealed that 55(55%) of the samples had an adequate level of knowledge regarding stroke, 40(40%) had a moderate level of knowledge and 5(5%) had an inadequate level of knowledge.

Thus, the findings indicate that the majority of the samples had an adequate level of knowledge regarding stroke.

Table No.3 depicts the distribution of samples according to their level of awareness regarding stroke. The findings revealed that 54(54%) of the samples had a good level of awareness regarding stroke, 41(41%) had a moderate level of awareness and 5(5%) had a poor level of awareness.

Thus, the findings indicate that the majority of the samples had a good level of awareness regarding stroke.

DISCUSSION

The overall findings of the present study indicate that the majority of the samples had adequate knowledge (55%) and good awareness (54%) regarding stroke. At the same time, a considerable proportion demonstrated moderate knowledge (40%) and moderate awareness (41%), while a small proportion had inadequate knowledge (5%) and poor awareness (5%). The findings therefore suggest that, although the overall knowledge and awareness levels were relatively favourable, there is still scope for improvement. The presence of moderate and inadequate levels emphasizes the importance of continuous and systematic health education regarding stroke.

The findings also highlight the potential importance of accessible sources of health information. Since 56% of the participants identified media as their source of health information, appropriately designed health messages through reliable media platforms may be useful for increasing awareness. However, health professionals should also be encouraged to provide accurate, understandable, and evidence-based information to the community.

Ethical considerations

Permission from concerned authorities was obtained.

Informed consent got from participants.

Confidentiality was maintained.

Right to withdraw was ensured

Table No.1: Distribution of samples regarding Demographic Variables N = 100

S.No	Demographic Variables	Frequency (f)	Percentage (%)
Age in years			
1	18- 30	44	44%
2	31-40	17	17%
3	41-50	17	17%
4	Above 50	22	22%
Gender			
5	Male	53	53%
6	Female	47	47%
Educational status			
7	No formal education	13	13%
8	Primary education	24	24%
9	Secondary education	20	20%
10	Graduate and above	43	43%
Occupation			
11	Un employed	34	34%
12	Self- employed	29	29%
13	Government employee	5	5%
14	Private employee	32	32%
Monthly income			
15	< 10000	37	37%
16	10001-20000	21	21%
17	20001- 30000	22	22%
18	>30000	20	20%
Type of family			
19	Nuclear	85	85%
20	Joint	15	15%
Place of residence			
21	Urban	72	72%
22	Rural	28	38%
Source of health information			
23	Health professionals	20	20%
24	Media	56	56%
25	Friends	18	18%
26	None	6	6%
Marital status			
27	Married	62	62%
28	Un married	18	18%
29	Diverced	4	4%
30	Widowed	16	16%
Socio economic status			
31	Above poverty line	89	89%
32	Below poverty line	11	11%

Table No.2: Distribution of samples regarding knowledge of stroke N = 100

S.No	Level of knowledge	Frequency (f)	Percentage %
1	Adequate	55	55%
2	Moderate	40	40%
3	Inadequate	5	5%
4	Total	100	100%

Table No.3: Distribution of samples regarding awareness of stroke N = 100

S.No	Level of awareness	Frequency (f)	Percentage %
1	Good	54	54%
2	Moderate	41	41%
3	Poor	5	5%
4	Total	100	100%

CONCLUSION

The present study demonstrates that the majority of the samples had adequate knowledge and good awareness regarding stroke, but a substantial proportion had only moderate levels. Therefore, regular health education and awareness programmes may be useful in strengthening knowledge and awareness and promoting appropriate preventive and health-seeking behaviours related to stroke.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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