ORIGINAL ARTICLE

AWARENESS ON STROKE AMONG ADULTS IN A COMMUNITY OF JHAPA

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ABSTRACT

Introduction: A stroke is a medical emergency that occurs as a result of decreased blood supply or cessation of blood flow to the brain. Even though there are preventable risk factors still, it is one of the leading causes of disability worldwide. This study was carried out with the aim of assessing awareness of stroke among adults in a community.

Method: A descriptive cross-sectional study was conducted among 106 adults in a community. Interview schedule was used to collect data by using self-developed structured questionnaire Data analysis was done using descriptive and inferential statistics in SPSS version 23

Result: More than half 50.9% had an adequate level of awareness on meaning of stroke(70.8), risk factors of stroke (70.8%) identified hypertension followed by stress (67.1%) symptoms (84.0%) identified severe headache followed by dizziness (69.8%). However, inadequate knowledge was present on immediate management of stroke(0%), time period to take the person to the hospital(17.9)%).There was a statistical association between sex and level of awareness (p=0.027), as well as between occupational status and level of awareness (p=0.000).

Conclusion: More than half of the respondents had adequate level of awareness regarding stroke despite of this, there is inadequate level of knowledge regarding the risk factors, preventive measures, the time period to take the person to the hospital, and complications associated with stroke. Which indicates need awareness program on stroke

Key words: Awareness; Stroke; Adults; Community

INTRODUCTION

A stroke commonly known as a cerebrovascular accident (CVA) or a "brain attack" is a critical medical emergency that occurs when the blood flow to the brain is either blocked by a clot or ruptures. This interruption or reduction in blood supply leads to the rapid death of brain cells within minutes, causing deprivation of oxygen and nutrients to the brain tissue[1].

Stroke is now a serious worldwide public health issue that demands quick and effective action. There were 12.2 million new cases of stroke, and 143 million disability-adjusted life years (DALYs). Over the period from 1990 to 2019, the number of new strokes cases increased by 70%, people living with stroke increased by 85%, deaths from stroke increased by 43%, and DALYs due to stroke increased by 32% [2]. A systemic review of Nepal found ischemic stroke is more common than hemorrhagic stroke[3].

The risk factors of stroke can be categorized as modifiable and non-modifiable. Modifiable risk factors include hypertension, smoking, diet, lack of physical activity, hyperlipidemia, diabetes mellitus, alcohol consumption, and cardiac causes whereas; non-modifiable risk factors include age, sex, and ethnicity[4]. The major warning signs numbness or weakness in the face, arms, or legs (unilateral), confusion, difficulty speaking or understanding speech, vision disturbances in one or both eyes, dizziness, trouble walking, loss of balance or coordination, severe headache with no known cause would be aware in time can reduced morbidity and mortality[5].

A study conducted in Assam, India among 340 adults showed that 35.9% of respondents were aware of the affected organ as 98.8%, were unaware of the golden period of stroke (within 4.5 hours of the onset of stroke)[6].

A study conducted in Selangor, Malaysia shows that 36.44% were able to identify all five symptoms of stroke, only 32.4% were aware of risk factors and 31.8% of them were aware of the appropriate action for stroke[7].

The situation of stroke in Asian countries reflects the worldwide scenario. The reported cases of stroke in Asia range from 116 to 483 per 100,000 people each year. The evidence also shows that South Asians are twice as likely to have a stroke as compred to Europeans due to a higher prevalence of certain health issues like dyslipidemia, diabetes mellitus, and central obesity. Nepal a South Asian country with 29 million people, reported a relatively high number of stroke cases in the southwestern region in 2018 i.e. 2368 per 100,000 people [8].

A wide range of lack in awareness on stroke is noted. In order to improve the outcome and implementation of preventive strategies related to this condition, better exploration of the baseline information is the pre requisite.

METHODS

A descriptive cross-sectional study design was used. The data were collected by using probability proportionate to sample size. A total of 106 respondents were selected. A self-developed structured questionnaire was used as instrument for data collection. The instrument consists of the following two parts:

Part I: It consists of questionnaire related to socio-demographic variables which include age, sex, ethnicity, marital status, education status, occupational status, and economic status.

Part II: It consists of questionnaire related to meaning, risk factors, warning signs, symptoms, diagnosis, preventive measures, treatment, management, and complications of stroke Correct answer was rewarded with 1 point, and 0 for incorrect.

Ethical Considerations

To maintain the ethical soundness of the study, an approval letter was obtained from the Institutional Review Board of MMIHS. The purpose of the study was explained and voluntary consent was taken from the respondents before data collection. Confidentiality was maintained throughout the study.

Data Collection and Analysis

Data was collected by the researcher using an interview schedule to gather information on stroke from 2080/09/15 to 2080/09/29.

Data were entered in Statistical Package for Social Sciences (SPSS) version 23 for further analysis. Data were analyzed using descriptive statistical methods (median, interquartile range, frequency and percentage) and inferential statistics

(chi-square test, fisher exact test) and measured the association between level of awareness and selected demographic variables.

RESULTS

The socio-demographic characteristics of the respondents revealed that more than half (50.9%) were of the age group was 20-28 years with median age of 28±11. The majority (67.9%) of the respondents were female. Almost all (98.1%) of the respondents could read and write. Less than half (47.2%) had a secondary level education. Less than half of the respondents (47.2%) had a secondary level education. More than a quarter of the respondents (32.1%) are unemployed. Majority (58.5%) of the respondent's family income was ≥ 30000.

Table 1: Level of Awareness on Stroke among the respondents

Level of Awareness	Number	Percent
Inadequate (< 38)	52	49.1
Adequate (≥ 38)	54	50.9
Total	106	100.0
Median ± IQR = 38±19		

Table no 1 illustrates that almost equal more than half (50.9%) of the respondents had an adequate level of awareness and less than half (49.1%) had an inadequate level of awareness. Respondents level of awareness was categorized on the basis of median (38± 19).

Table 2: Association of Level of Awareness with Socio-Demographic Variables of Respondents

Characteristics	Level of Awareness		p-value
	Inadequate	Adequate	
Age (Completed years)			
20-28	29(53.7)	25(46.3)	0.562
29-40	25(48.1)	27(51.9)	
Sex			
Male	12(35.3)	22(64.7)	0.027
Female	42(58.3)	30(41.7)	
Ethnicity			
Brahmin/Chhetri	26(49.1)	27(50.9)	0.463
Dalit	6(46.2)	7(53.8)	
Janajati	18(62.1)	11(37.9)	
Madhesi	4(36.4)	7(63.6)	
Marital Status			
Married	33(46.5)	34(53.5)	0.941
Others	17(48.6)	18(51.4)	
Educational Status			
Cannot read and write	1(50.00)	1(50.00)	1.000
Can read and write	53(51.0)	51(49.0)	
Occupational Status			
Employed	42(58.3)	30(41.7)	0.000*
Unemployed	7(20.6)	27(79.4)	
Economic Status			
10000-30000	19(54.3)	16(45.7)	0.941
35000-70000	38(53.5)	33(46.5)	
History of Stroke			
Yes	3(100.0)	0(0.0)	0.243
No	51(4.5)	52(50.5)	

Table no 2 shows that there is a significant association between sex and level of awareness (p=0.027) and occupational status and level of awareness (p=0.000).

DISCUSSION

The current study findings showed that more than half (50.9%) of the respondents had an adequate level of awareness. Similarly, in a study conducted in Gujarat, India showed (60.40%) of the respondents had moderate to good level of awareness[9].

In this study majority (70.8%) of the participants were able to state the meaning of stroke. In contradiction to the study conducted by in Uganda showed that (51.8%) were able to state the meaning of stroke. This variation may be due to differences in educational status[10].

Regarding the risk factors of stroke in this study the majority (70.8%) of the respondents identified hypertension followed by stress (67.1%). This correlates to a study conducted by Sirisha et al., (2021) in Telangana, India which showed that (67.5%) of the respondents identified hypertension followed by stress (64.1%) as a risk factor of stroke[11].

The present study revealed that the majority (69.8%) of the respondents identified the warning signs of stroke as weakness of the arm/leg/face followed by loss of balance and coordination (67.0%). This aligns with the study conducted by Joshi et al., (2022) in Pune, India which showed that (72.6%) of the respondents identified weakness of the arm/leg/face as the warning sign of stroke[12].

In this study, most (70.8%) of the respondents couldn't identify the time period to take the person to the hospital. In contrast, a study conducted in Assam showed almost all of the respondents (98.8%) were not aware of the golden period of stroke. This may be due to the difference in education[13].

CONCLUSION

Based on the findings of this study just more than half of the adults had an adequate level of awareness on stroke. However inadequate awarenesswas found among adults concerning the risk factors, preventive measures, the time period to take the person to the hospital, and complications associated with stroke. The study also reveals that there is a statistical association between the level of awareness and age.

RECOMMENDATIONS

A study can be conducted in more than one setting using more samples so that the findings of the study can be generalized in other settings. Health education and awareness programs should be organized by the government to disseminate information about the risk factors, preventive measures, the time at which the person should be taken to the hospital, and complications associated with stroke with a specific focus on reaching young adults who may be at risk.

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AUTHOR CONTRIBUTIONS

Sunita Shrestha took the overall responsibility for the study, including conceptualization, methodology development, analysis, and finalization of the manuscript. Krishna Paudel and Jamuna Laxmi Maharjan contributed to methodology design and tool preparation, while Dikshya Niroula led the preparation of the theoretical framework, methodology, data collection analysis, and report preparation.

COMPETING INTERESTS

All the authors declare no competing interest