

AWARENESS REGARDING RISK FACTORS, SIGNS AND SYMPTOMS AND TREATMENT OF STROKE AMONG COMMUNITY PEOPLE, DURGAPUR

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ABSTRACT

Stroke is one of the leading causes of death and disability worldwide. Lack of awareness regarding risk factors, early signs and symptoms, and timely treatment contributes significantly to increased morbidity and mortality. This study intends to focus on assessment of awareness regarding stroke among community people in Durgapur. 162 community people are selected through convenient sampling technique.

A descriptive cross-sectional study design was adopted, and data were collected from community residents using a structured questionnaire. The study findings indicate that although some participants had basic knowledge about stroke, there was inadequate awareness regarding warning signs and emergency management. Results revealed that most of community people (12.96%) had low level of awareness, (80.25%) community people had moderate level of awareness and (6.79%) community people had appropriate level of awareness. There was non-significant association between risk factors and associated demographic variables like age, sex, educational qualification, occupation. The study finding has non-significant education for nursing practice, nursing education, nursing research.

KEYWORD: Assess, community people, awareness, knowledge, stroke.

INTRODUCTION

Stroke is one of the leading causes of death and long-term disability worldwide. It can affect a person's ability to move, speak, think, and perform daily activities. Early recognition of signs and symptoms and prompt treatment are essential to reduce brain damage and improve outcomes [3].

This research is necessary because modifiable risk factors such as hypertension, diabetes mellitus, dyslipidemia, tobacco consumption, unhealthy diet, and physical inactivity play a major role in the development of stroke, and effective control of these factors can significantly reduce stroke incidence [9][10].

However, in many Indian communities, awareness regarding these risk factors and the early warning signs of stroke- such as sudden weakness, facial deviation, and speech difficulty remains inadequate, leading to delayed recognition and late hospital presentation. As a result, opportunities for timely interventions like thrombolytic therapy are often missed, increasing stroke-related morbidity, disability, and mortality [9][11].

NEED OF THE STUDY

This study is being conducted to systematically assess the level of awareness regarding risk factors, early warning signs and symptoms, and available treatment options for stroke among individuals residing in the community.

PROBLEM STATEMENT

Awareness regarding risk factors, signs and symptoms and treatment of stroke among community people, Durgapur

OBJECTIVES

Primary objective

1. To assess the level of awareness of risk factors, signs and symptoms and treatment of stroke.

Secondary objective

2. To find out the association between risk factors and associated demographic variables

HYPOTHESIS

Will be tested under 0.05 level of significance

• **H₀:** There is no significant relationship between risk factor and demographic variables of stroke.

• **H₁:** There is significant relationship between risk factor and demographic variables of stroke.

OPERATIONAL DEFINITION

Awareness: In this study awareness can be defined the knowledge of risk factors, signs and symptoms and treatment of stroke among community people of Kuldigha, Molandighi, Durgapur.

Stroke: In this study stroke can be defined as a medical emergency where blood flow to a part of the brain is interrupted, causing brain cells to die from lack of oxygen and nutrients within minutes, leading to potential brain damage, disability or death.

Risk factors: In this study risk factors can be defined the characteristics and exposure that increase the chance of developing stroke among community people.

Signs and symptoms: In this study signs and symptoms can be defined the characteristics of stroke which can be seen among community people.

Treatment: In this study treatment can be defined the course of actions can be taken for stroke among community people.

VARIABLES

● Demographic variables

Demographic variables are basically the characteristics which described the population or sample being studied and analyzed.

The demographic factors include in this study are gender, age, occupation and educational level.

● Research variables

Research variables are the key elements or factors in a study that can change or vary and are measure, control or manipulated by the researcher.

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DELIMITATION:

The delimitations are necessary due to specific context and constrain of research, but they should be considered when interpreting the findings.

- Outsider of the community area.
- Transgender.
- Physically and mentally ill

REVIEW OF LITERATURE

I. Review of literature related among awareness regarding risk factor of stroke among community people

Asturkar M et al. (2025) Conducted a cross-sectional observational study among 380 participants more than 30 years people to assess the awareness of stroke in general population. Study shows on that 56% participants, using Questionnaires interview method, that brain is affected organ in Stroke, Hypertension is the most commonly risk factor in Stroke^[15].

Bihari R et al. (2025) conducted a cross-sectional study among 250 participants of trained juniors' resident and nurses, above 40 years age. The interview was done using a structured open-ended questionnaire. Results shows that Hypertension is most commonly identified risk fact^[16].

II. Review of literature related among awareness regarding sign and symptoms of stroke among community people

Kruuse C et al. (2023) conducted a retrospective cohort study on 517 patients who diagnosed with stroke and above 18 years of age. They conducted phone calls from patient, which included visual symptoms on patients later verified with stroke/Transient ischemic attack (TIA) diagnosis, were analyzed. The results shows that only 30% of the patients received correct visitation by the medical dispatchers and referral to the hospital by a high-priority ambulance^[19]

Zeinalzadeh M et al. (2023) conducted a cross-sectional study including 1025 participants belonging to the age group of 18-83 years old for public awareness of sign and symptoms of stroke. In the sole community-based survey and face-to-face interview carried out. Overall, there is no discernible correlation between a country's developmental status and the awareness of stroke symptoms by public. Educational initiatives in schools and media are potential strategies to enhance public knowledge^[20].

III. Review of literature related to among awareness regarding treatment of stroke among community people

Verma S et al. (2023) conducted a mixed method approach including 150 interviews and primarily 56 to 80 years old age group. Researcher use proposal sampling to conduct interviews and focus group. They analyze data from case reports workbook using thematic analytics. The treatment was structured semi interactive stroke prevention package. It was not a medical or surgical treatment but an educational intervention^[26].

Huded V et al. (2014) a clinical experience study including 45 patients on an average 49 years old. Doctors use advanced brain imagine technologies to find blocked blood vessels and recommended a physical procedure to remove the clot. The treatment included medical thrombectomy^[27].

RESEARCH METHODOLOGY

● Research approach- Quantitative approach

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- Research design- Cross -sectional
- Study setting- The present study was conducted in community area in West Bengal. The name of the rural community area at Kuldiha, Molandighi under Panagarh BPHC.
- Population- The study populations are the community people
- Target population- The study target population is rural community people
- Accessible population- People living in Panagarh and Malamdighi rural community and available during the data collection
- Sample- The community people, who meet the inclusion criteria
- Sample size calculation-

$$\text{Sample size}(n) = \frac{(Z_{1-\alpha/2})^2 (p)(q)}{(d)^2}$$

$$= \frac{(1.96)^2 (0.12)(0.88)}{(0.05)^2}$$

$$= 162$$

n=Desired sample size, Z=critical value and a standard value for the corresponding level of confidence=1.96 (At 95% CI or 5% level of significance (type- 1 error) it is 1.96 and at 99% CI it is 2.58) P=Expected prevalence or based on previous research=0.12 q=1-p=0.88 d=Margin of error or precision=0.05

Study includes a total of 162 community people in selected community area, Durgapur. These participants are selected based on specific inclusion and exclusion criteria relevant to the objectives of the research.

- Sampling technique- Convenient sampling

Criteria for sample collection

Inclusion criteria:

- Both genders
- People having basic knowledge on English/Bengali
- Age between 18 years to 80 years

Exclusion criteria:

- People not interested in study

Limitation:

Our study did not include individuals who spoke languages other than English/Bengali. This study was limited to a small geographical region.

DATA COLLECTION TOOLS AND TECHNIQUES:

1. **Tool I:** Demographic variables

2. **Tool II:** Knowledge questionnaire on risk factors, sign and symptoms and treatment of stroke among community people.

Tool	Variable to be measured	Technique
Tool I: Interview schedule	Demographic variables of community people	Interviewing
Tool II: Interview schedule	Assessment of knowledge of risk factors, sign and symptoms and treatment of stroke among community people	Interviewing

VALIDATION OF TOOL AND CONTENT

The validity of these tools was confirmed from validation experts and feedback from several community people.

RELIABILITY OF THE TOOL

In the study on awareness regarding risk factors, signs & symptoms, and treatment of stroke, the tool is usually a structured questionnaire or interview schedule.

DATA ANALYSIS AND INTERPRETATION

Table 1. Frequency distribution with demographic variables n=162

Demographic Variables	Frequency	Percentage
	(n)	(%)
Gender		
Male	94	58.02
Female	68	41.98
Age		
18 – 24	13	8.02
25 – 31	40	24.69
32 – 45	46	28.40
46 – 80	63	38.89
Education Qualification		
Illiterate	48	29.63
Secondary	47	29.01
Higher Secondary	48	29.63
Graduate and above	19	11.73
Occupation		
Employed	84	51.85
Unemployed	74	48.15

Table 1 provides the demographic frequency and percentage of the participants. Among the total participants of 162, **Male (58.02%)** participants was highest. Maximum participations age group was **46-80 years (38.89%)**. In educational qualification criteria both **Illiterate** and **Higher secondary (29.63%)** was highest. Most of the participants are **Employed (51.85%)**

Table:2. Distribution of percentage with gender

Gender	Percentage
Male	58.02%
Female	41.98%

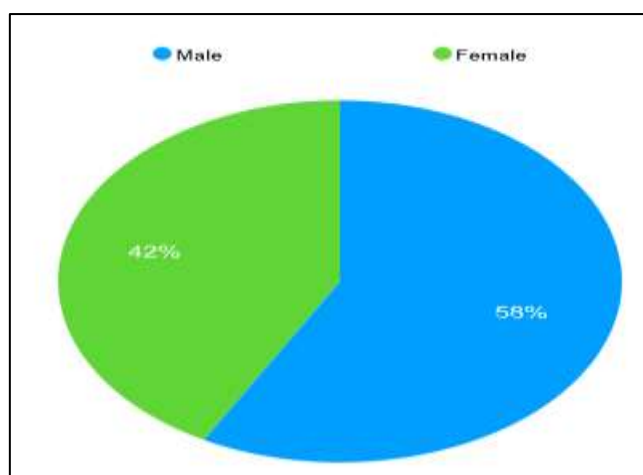


Figure 4.1 Pie diagram showing distribution of sample according to gender

Table:3. Distribution of percentage with age

Age	Percentage
18-24	8.02
25-31	24.69
32-45	28.40
46-80	38.89

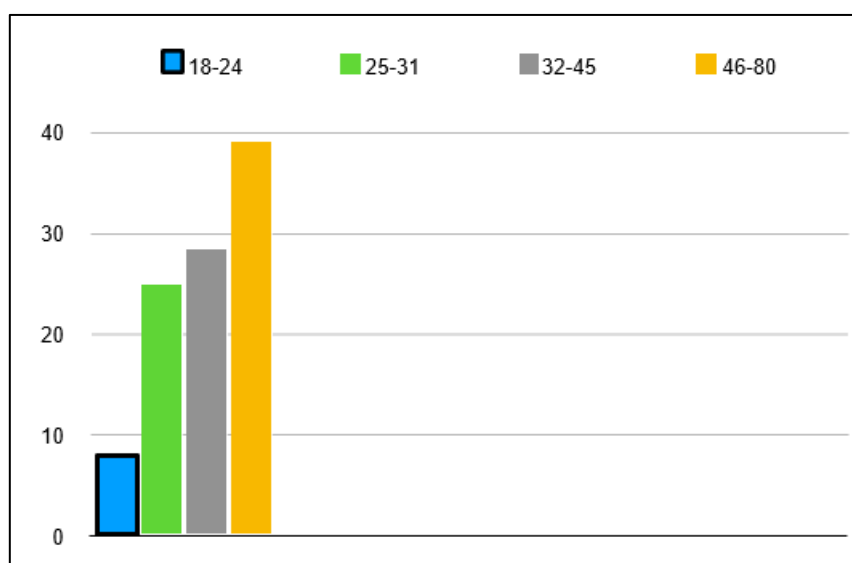


Figure 4.2 Bar diagram showing distribution of sample according to age

Table: 4. Distribution of percentage of educational qualifications

Educational qualifications	Percentage
Illiterate	29.63%
Secondary	29.01%
Higher secondary	29.63%
Graduate	11.73%

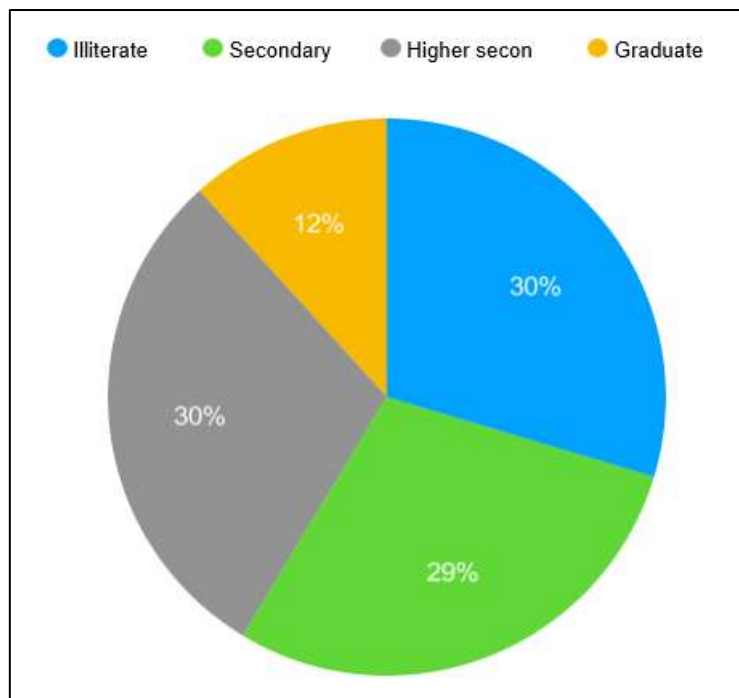


Figure 4.3 Pie diagram showing distribution of sample according to educational qualification

Table 5. Distribution of percentage of occupation

Occupation	Percentage
Employed	51.85%
Unemployed	48.15%

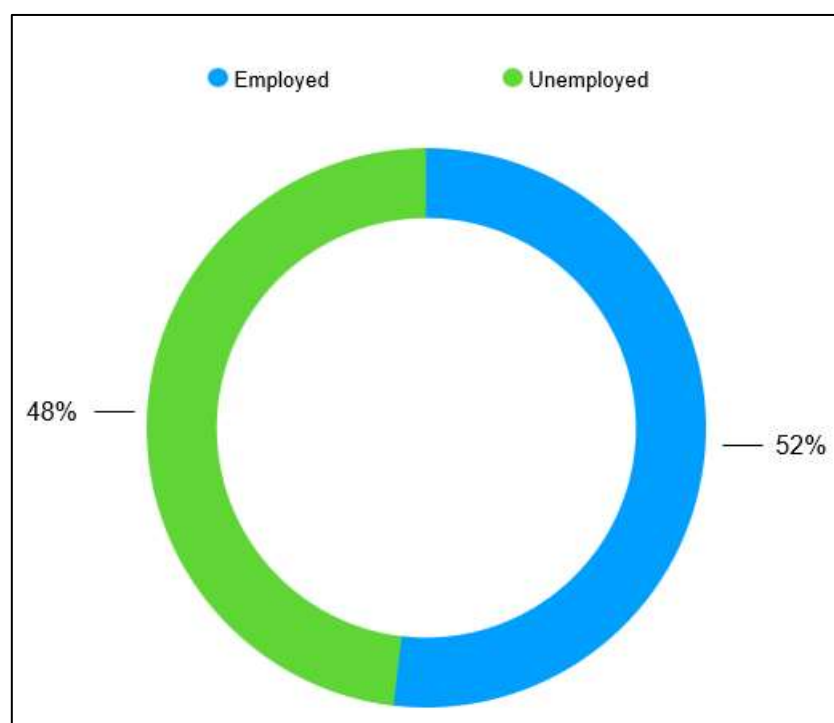


Figure 4.4 Pie diagram showing of sample according to occupation

Table :6. Frequency and Percentage of Awareness of Stroke n = 162

Level of Stroke Awareness	Frequency	Percentage (%)

Low	21	12.96
Moderate	130	80.25
Appropriate	11	6.79
Total	162	100

Table 2 Provides frequency and percentage of level of awareness of participants. Among all total participants of 162, highest no. of participant (80.25%) has moderate awareness about stroke. And some participant (12.96%) has mild awareness. And some participants (6.79%) are having high awareness about stroke

Table:7. Association of level of awareness with demographic variables N=162

Table 7: Association of level of awareness with demographic variables N=162					
Demographic Variables	Knowledge Score		Total	Value of χ^2	Significance
	<Median	>Median			
Gender					
Male	60	34	94	3.78	Not Significant
Female	33	35	68		
Total	93	69	162		
Age					
Less than equal to 45	54	46	100	1.24	Not Significant
More than 45	39	23	62		
Total	93	69	162		
Educational Qualification					
<Higher secondary	58	39	95	1.87	Not Significant
>Higher secondary	35	32	67		
Total	93	69	162		
Occupation					
Employed	51	32	83	1.146	Not Significant
Unemployed	42	37	79		
Total	93	69	162		

Table 7 represents the chi- square test that was conducted to find an association between awareness regarding stroke and selected demographic variables. Awareness regarding stroke was statistically linked with gender, age, educational qualification, occupation. No significant association was found with other selected demographic variables.

MAJOR FINDINGS, DISCUSSION, CONCLUSION, IMPLEMENTATION, LIMITATION, RECOMMENDATION

The major findings of the study

1. Major Findings related to frequency and percentage distribution of demography variables

- Among the total participants of 162 male are 94 (58.02%) and female are 68 (48.98%).
- Highest participation 38.89% is from the age group 46-80 years.
- Majority are 29.63% are illiterate and 29.63% are qualified higher secondary examination.
- Employed person more participation 84 (51.85%).

2. Major findings related to frequency and percentage distribution of level of awareness

- Among all participants of 162, highest no of participants (80.25%) has moderate awareness about stroke.
- Some participants (12.96%) have low awareness.
- And some participants (6.79%) are having appropriate awareness about stroke.

3. Major findings related to association of awareness and demographic variables

- Among all total participants of 162, highest no of participants (80.25%) has moderate knowledge about Stroke.
- And some participants (12.96%) have low knowledge
- And some participants (6.79%) are having appropriate knowledge of stroke.

Hypothesis

There will be statistically no significant association between level of awareness and socio demographic variables regarding stroke among community people at 0.05 level of significance.

DISCUSSION

In the present study a significant positive co-relation was found between overall awareness level and the experiencing stroke among community people. This suggest that if there highlighting a potential link in the stroke misperception among the

community people. Is an increase in awareness level the likelihood of experiencing public speaking also rise and the increased awareness and potential level of consciousness in certain environment might explain the higher level of discomfort

reported in the study. This may also be elaborated by the fact that community people mostly have to suffering balance loss, eye sight changes, face dropping, arm weakness and speech difficulty.

this current study, almost moderate 80.25% has aware about stroke seems to be among the individual who is likely to be anxious due to participants are not addressing or

leading the group because. The present study indicates that knowledge about warning signs of stroke among community people is moderate to poor. A small proportion of participants correctly identified the major symptoms, while many respondents confused stroke symptoms with general weakness or ageing problems of their ambivert and underconfident personality.

In the previous study, only 30–40% participants could identify at least one warning sign. Less than 25% knew the importance of immediate hospital treatment.

Many respondents believed stroke is caused by stress or fate.

In contrast, the current study, which comprised a total of 162 participants, shows a significant shift in the age profile of respondents. The majority of participants (38.89%) are now concentrated in the years age bracket, and aware to the early detection and management of stroke.

Limitation

The study findings could not be generalized because of the following reasons:

- Our study did not include individuals who spoke languages other than English/Bengali.
- This study was limited to a small geographical region.

CONCLUSION

From the findings of the present study, it can be concluded that the participants had varying levels of awareness regarding the risk factors, signs and symptoms, and treatment of stroke. The study revealed that a considerable proportion of participants had inadequate or only partial knowledge about stroke, especially in areas such as risk factors and timely treatment.

The analysis also showed that awareness levels were influenced by certain demographic variables such as age, gender, education qualification, occupation, while no significant association was found with some other variables. Overall, the findings indicate that there is a need to improve awareness regarding stroke, as lack of knowledge may lead to delay in recognition and treatment, increasing the risk of complications and mortality.

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