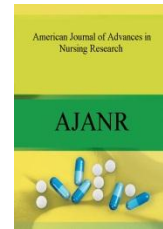




AMERICAN JOURNAL OF ADVANCES IN NURSING RESEARCH



Journal homepage: www.mcmed.us/journal/ajanr

A STUDY TO ASSESS THE AWARENESS OF RISK FACTORS AND WARNING SIGNS OF STROKE AMONG PATIENTS IN SELECTED HOSPITAL , LUDHIANA, PUNJAB, INDIA

Anurag Mani Diwakar

Assistant Professor, Late R P Patel College of Nursing, Anand, Gujarat, India.

Article Info

Received 10/01/2014

Revised 15/02/2014

Accepted 18/02/2014

Key words: Out Patient
Department (OPD),
Stroke, Awareness.

ABSTRACT

Stroke is a sudden loss of brain function resulting from an interference with blood supply to the brain. Stroke is a worldwide health problem. It makes an important contribution to morbidity, mortality and disability in developed as well as developing countries. It is the third leading cause of death in India as well as in other countries behind diseases of the heart and cancer. Objective of the study to assess the awareness of risk factors of stroke among patients, To assess the awareness of warning signs of stroke among patients, To find out the relationship of risk factors of stroke with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke , family history of hypertension, dietary habits, family history of coronary artery disease, To find out the relationship of warning signs of stroke with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke , family history of hypertension, dietary habits, family history of coronary artery disease, To prepare pamphlet on prevention of stroke based on the outcome of the study. Design: Non experimental Descriptive design. Setting: The study was conducted in neurology and medicine OPD in CMC & Hospital, Ludhiana. Participants: 100 neurology and medicine OPD patients. The awareness of risk factors and warning signs of stroke assessed by structured multiple choice questionnaires and a checklist. Descriptive and inferential statistics were used to analyze the data. The data revealed that 32% patients had below average awareness score regarding risk factors of stroke, followed by 30% average awareness score, 23% good score and 15% obtained excellent awareness score. Finding also showed that 44% patients had excellent awareness score regarding warning signs of stroke followed by 43% good awareness score, 13% average score and none was having below average awareness score. Further major findings also showed that according to variables the awareness of risk factors of stroke of patients were all non significant at $p < 0.05$ level and $p < 0.001$ except the variables education, residence and family history of hypertension. According to variables the awareness of warning signs of stroke of patients were all non significant at $p < 0.05$ level and $p < 0.001$ except the variable of age in years. The study concluded that OPD patients do vary in their awareness of risk factors and warning signs.

INTRODUCTION

Stroke is a sudden loss of brain function resulting

Corresponding Author

Anurag Mani Diwakar
Email:- andddy21@gmail.com

from an interference with blood supply to the brain. It limits stroke to an acute vascular phenomenon that includes ischemic strokes and hemorrhagic strokes. Stroke is one of the major causes of human morbidity and mortality. It ranked as the sixth leading cause of disability-

Research Article



adjusted years in 1990 and is projected to rank fourth by the year 2020 [1].

There are several types of stroke, and each type has different causes. The three main types of stroke are ischemic stroke, intracerebral hemorrhage and subarachnoid hemorrhage. Of these, 87% are ischemic, 10% are intracerebral hemorrhage, and 3% are subarachnoid hemorrhage [2].

According to the World Health Organization, 15 million people suffer from stroke worldwide each year. Of these, 5 million die and another 5 million are permanently disabled. High blood pressure contributes to over 12.7 million strokes worldwide. Europe averages approximately 650,000 stroke deaths each year. In developed countries, the incidence of stroke is declining - largely due to efforts to lower blood pressure and reduce smoking. However, the overall rate of stroke remains high due to the aging of the population [3].

Eillen M. Stuart et al. (2009) [4] examined gender differences in the prevalence of presenting and prodromal stroke symptoms among 1107 consecutive patients hospitalized with neurologist-confirmed acute ischemic stroke. Patient demographics, clinical Variables and stroke symptoms were abstracted from medical records by trained abstractors using standardized forms. Presenting symptoms occurred within 24 hours of incident stroke admission; prodromal symptoms occurred \geq 24 hours of admission. Women were significantly older ($P>0.001$), more likely to have cardioembolic stroke ($P>0.01$), and less likely to receive aspirin ($P=0.014$) or statins ($P>0.001$). Thirty-five percent of the sample ($n=389$) reported prodromal symptoms. Women were more likely to have ≥ 1 somatic prodromal and presenting symptoms ($P=0.03$; $P=0.008$), but did not differ from men on specific somatic symptoms. Women did not differ significantly in the prevalence of traditional stroke symptoms but were more likely to have somatic presenting and prodromal symptoms. We found no differences in specific prodromal symptoms, making it difficult to craft a public health message about gender differences in early warning signs of stroke [5,6]. These results suggest that the focus of stroke prevention education for women should continue to emphasize traditional stroke risk factors.

Objectives of the study

1. To assess the awareness of risk factors of stroke among patients.
2. To assess the awareness of warning signs of stroke among patients.
3. To find out the relationship of risk factors of stroke with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke, family history of hypertension, dietary habits, family history of coronary artery disease
4. To find out the relationship of warning signs of stroke

with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke, family history of hypertension, dietary habits, family history of coronary artery disease

5. To prepare pamphlet on prevention of stroke based on the outcome of the study

Assumptions

The OPD patients do vary in their awareness of risk factors and warning signs of stroke.

MATERIALS AND METHODS

The research design used in the study non experimental descriptive design. The population of the present study comprises of the all neurology and medicine OPD patients from CMC & Hospital, Ludhiana. I did the study by own and no source of funding. The accessible population are those available at the time of conducting study. After getting the ethical committee clearance from CMC & Hospital, Ludhiana and the formal permission from neurology and medicine department. The data was collected by structured multiple choice questionnaires and a checklist. The sample of the study comprises all the neurology and medicine OPD patients at CMC & Hospital, Ludhiana and who fulfill the inclusive criteria that has been included in the study. Both descriptive and inferential statistics were used for data analysis [7-15].

FINDINGS

Section I: socio-demographic variables of the OPD patients

Data revealed that maximum number of patients (34%) were in the age group of 40-50, followed by (28%) belong to age group of 51-60 years and (19%) patients were in age group of 61-70 and above 70 years. As regards to gender (72%) were male and (28%) were female patients. Regarding monthly income maximum number (30%) of patients were from 10,001-15000Rs per month, followed by (27%) ≤ 5000 Rs per month, (25%) above 15,000RS per month and minimum (18%) from 5001-10,000Rs per month. In relation to education, highest patients were those who were matric (47%) followed by graduate and above (32%), higher secondary (13%) and illiterate (8%). Regarding occupation maximum number (34%) of patients were self employed, followed by (28%) were in service, (22%) in any other job and (16%) were unemployed. About the residence, (51%) of patients were from urban area and (49%) of patients were belongs to rural area. In regard to family history of stroke, maximum patients (79%) had no family history of stroke and (21%) patients had family history of stroke. As per family history of hypertension most of the patients had history of hypertension (62%) and (38%) had no history of hypertension. About dietary habits (66%) were vegetarian and (34%) were non vegetarian. In regard to family history



of coronary artery disease, (64%) were having the family history of coronary artery disease, and (36%) were not having family history of coronary artery disease.

Section II: To find out the relationship of risk factors of stroke with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke, family history of hypertension, dietary habits, family history of coronary artery disease

Table 1 reveals that, 75% of the illiterate patients had below average awareness, followed by 12.5% of them had good and average awareness. The patients who had education up to matric had 42.6% average awareness, followed by 31.9% had below average awareness, 21.3% good awareness and 4.3% patients obtained excellent awareness. The patients with higher secondary education 38.5% of them had average awareness, followed by 30.8% good awareness, and 15.4% of the patient had excellent and below average awareness respectively. Whereas the patients who had education upto graduate and above had 34.4% excellent awareness, followed by 28.1% average awareness, 25% good awareness and 12.5% had average awareness. This difference was found statistically significant at $p < 0.001$ level.

Table 2 shows that 35.3% of urban patients had average level of awareness, followed by 23.5% good, 21.6% excellent and 19.6% had below average awareness regarding risk factors of stroke. Whereas the patients from the rural area 44.9% had below average awareness, followed by 24.5% average awareness, 22.4% good awareness and only 8.2% patients obtained excellent awareness. This difference was found statistically significant at $p < 0.05$ level.

Table 3 depicts that 27.4% of family history of hypertension patients had below average awareness, followed by 25.8% average awareness, 24.2% good awareness and 22.6% had excellent awareness. Whereas the patients who had no family history of hypertension 39.4% had below average awareness, followed by 36.8% of them had average awareness, 21.1% good awareness

and 2.6% obtained excellent awareness. This difference was found statistically significant at $p < 0.05$ level.

Section III : To find out the relationship of risk factors of stroke with selected variables as age, gender, monthly income, education, occupation, residence, family history of stroke, family history of hypertension, dietary habits, family history of coronary artery disease

Table 4 illustrates that 44.1% patients in age group 40-50 years had excellent and good awareness respectively, followed by 11.8% of patients with average awareness. In the age group between 51-60, 46.4% of patients had good awareness followed by 42.9% had excellent awareness and 10.7% average awareness. In the age group between 61-70, 63.2% had excellent awareness followed by 36.8% had good awareness. 42.1% of patients in age group >70 years had good awareness, followed by 31.6% average awareness and 26.3% had excellent awareness. This difference was found statistically significant at $p < 0.05$ level.

CONCLUSION

Findings of study indicated that on the basis of mean percentage score related to awareness it can be said that maximum patients had below average and average awareness regarding risk factors of stroke and maximum patients had excellent and good awareness regarding warning signs of stroke. Only education, residence and family history of hypertension had some impact on awareness of risk factors of stroke. Relationship of awareness with other variables like age, gender, monthly income, occupation, family history of stroke, dietary habits, family history of coronary artery disease were not found statistically significant. Only age had some impact on awareness of warning signs of stroke. Relationship of awareness with other variables like gender, monthly income, occupation, family history of stroke, dietary habits, family history of coronary artery disease were not found statistically significant.

Table 1. Frequency and Percentage Distribution of Patients Level of Awareness Score Regarding Risk Factors of Stroke According to Education N=100

Education	Awareness Score									
	Excellent		Good		Average		Below average		Total	
	f	%	f	%	f	%	f	%	f	%
Illiterate	0	0	1	12.5	1	12.5	6	75	8	8
Matric	2	4.3	10	21.3	20	42.6	15	31.9	47	47
Higher secondary	2	15.4	4	30.8	5	38.5	2	15.4	13	13
Graduate & above	11	34.4	8	25	4	12.5	9	28.1	32	32
				χ^2	df					
				26.42***	6					

Maximum score=32 *** at $p < 0.001$ level. Minimum score=0



Table 2. Frequency and Percentage Distribution of Patients Level of Awareness Score Regarding Risk Factors of Stroke According to Residence N=100

Residence	Awareness Score									
	Excellent		Good		Average		Below average		Total	
	f	%	f	%	f	%	f	%	f	%
Urban	11	21.6	12	23.5	18	35.3	10	19.6	51	51
Rural	4	8.2	11	22.4	12	24.5	22	44.9	49	49
				χ^2	df					
				8.97*	3					

Maximum score=32 * at p<0.05 level. Minimum score=0

Table 3. Frequency and Percentage Distribution of Patients Level of Awareness Score Regarding Risk Factors of Stroke According to Family history of hypertension N=100

Family history of hypertension	Awareness Score									
	Excellent		Good		Average		Below average		Total	
	f	%	f	%	f	%	f	%	f	%
Yes	14	22.6	15	24.2	16	25.8	17	27.4	62	62
No	1	2.6	8	21.1	14	36.8	15	39.4	38	38
				χ^2	df					
				8.37*	3					

Maximum score=32 * at p<0.05 level. Minimum score=0

Table 4. Frequency and Percentage Distribution of Patients Level of Awareness Score Regarding Warning Signs of Stroke According to Age N=100

Age in years	Awareness Score									
	Excellent		Good		Average		Below average		Total	
	f	%	f	%	f	%	f	%	f	%
40-50	15	44.1	15	44.1	4	11.8	0	0	34	34
51-60	12	42.9	13	46.4	3	10.7	0	0	28	28
61-70	12	63.2	7	36.8	0	0	0	0	19	19
>70	5	26.3	8	42.1	6	31.6	0	0	19	19
				χ^2	df					
				10.86*	3					

Maximum score=14 * at p<0.05 level. Minimum score=0

RECOMMENDATIONS

The study can be replicated in various settings.

ACKNOWLEDGEMENT

I acknowledge my deep sense of gratitude to the Mrs. Triveni Rajappa, Professor cum Nursing Superintendent, CMC & Hospital, Ludhiana for guiding a M.Sc. Nursing programme and providing a constant support. I am also thankful to my friend Ms. Kiranpreet

kaur, Infection control nurse, Artemis Hospital, Gurgon for her help even at odd hours.

CONFLICT OF INTEREST

There were no conflicts of interest reported.

FUNDING

There was no financial assistance from any governmental/nongovernmental funding agency.

REFERENCES

1. Hawks JH & Joyce MB. (2009). Medical Surgical Nursing clinical management of positive outcomes. 8th ed. Saunders Publication.
2. Bare BG & Suzanne C. (2004). Text book of Medical Surgical Nursing. 10th ed. Lippincott Publication.
3. World Health Organization. 2007.
4. U.S. centers for disease control and prevention and the heart disease and stroke statistics. 2010.



5. Heart and stroke foundation of Canada. (2003). A report by the center for chronic disease prevention and control.
6. Bell M, Lommel T. (2009). Improved Recognition of Heart Attack and Stroke symptoms after a Community- based Intervention for Older Adults. *Journal of Preventive Chronic Disability*, 6(2), 41.
7. Sarti C, Rastenyte D. (2000). International Trends in Mortality from Stroke 1968 to 1994. 1588-1601.
8. Kumar S. (2006). Epidemiology of Stroke in India. *Journal of Neurology Asia*, 11, 1-4.
9. Banjree TK. (2006). Epidemiology of Stroke in India. *Journal of Neurology Asia*, 11, 1-4.
10. Rastogi. <http://health.indiatimes.com/articleshow/114855.cms>. Brain Stroke third biggest killer in India. 2009.
11. Ferris A. (2005). *Circulation*, 111(10), 1321.
12. Anne H. (2009). Stroke Awareness in General Population: knowledge of stroke risk factors and warning signs in older adults. *Journal of BMC Geriatric*, 9(35), 1186/1471.
13. Oro M. (2009). The extent of knowledge about strokes among the population of a rural area in the Spain. *Journal of rev neurol*, 48(10), 515-17.
14. Gongora RF, Gutierrez JE. (2009). Knowledge of ischemic stroke among a Mexico city population. *Journal Stroke Cerebrovascular Disorders*, 18(3), 208-13.
15. Das K, Mondal GP. (2007). Awareness of Warning symptoms and Risk factors of Stroke in the General Population and in Survivors Stroke. *Journal of clinical neuroscience*, 14(1), 12-16.

