STROKE RELATED ANXIETY AND SECONDARY STROKE PREVENTION PRACTICES AMONG STROKE SURVIVORS

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ABSTRACT

INTRODUCTION

Stroke is a leading cause of death and permanent disability worldwide. A secondary stroke, also known as a recurrent stroke, is one which occurs 24 hours or more after a primary stroke. The objectives of this study were to find out the stroke related anxiety, knowledge related to the risk factors of stroke and practices among stroke survivors to prevent secondary stroke.

MATERIAL AND METHODS

Descriptive cross-sectional study was conducted to find out stroke related anxiety and secondary stroke prevention practices among 76 purposively selected stroke survivors. Semi- structured interview schedule and Hospital Anxiety and Depression Scale (HADS) were used to collect data. Descriptive statistics (frequency and percentage) were used with SPSS version 20.0 for data analysis.

RESULTS

The findings of the study showed that out of 76 stroke survivors, 13.16% had borderline anxiety and 11.84 % were abnormal cases of anxiety. Knowledge on risk factors of secondary stroke as old age (94.74%), physical inactivity (55.26%), smoking (60.53%), excessive alcohol consumption (63.16%) and hypertension (92.11%). Poor practices were found regarding secondary stroke prevention such as monitoring blood pressure regularly (26.53%), regular exercise (40.79%), nearly half had not reduced alcohol intake (44.19%) and had not quit smoking (48.15%).

CONCLUSION

Findings of the study showed presence of stroke related anxiety among stroke survivors and poor secondary stroke prevention practices. These might will be helpful for concerned authority to focus on management of post stroke anxiety. It is recommended to concerned authority to conduct awareness program on secondary stroke prevention practices.

KEYWORDS

Anxiety, Prevention practices, Secondary stroke, Stroke.

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INTRODUCTION

Stroke is a leading cause of death and permanent disability worldwide. The World Health Organization (WHO) has defined stroke as, 'rapidly developing clinical signs of focal (or global) disturbance of cerebral function, with symptoms lasting 24 hours or longer or leading to death, with no apparent cause other than of vascular origin. A secondary stroke, also known as a recurrent stroke, is one which occurs 24 hours or more after a primary stroke.[1] After first stroke there is higher risk of stroke recurrence and associated with increased mortality and functional dependence.[2] It is estimated from a global meta-analysis in 2011 that 11% of individuals will have a recurrence within a year of their first stroke and 26% within 5 years and 40% within 10 years.[3] In 2017, CVDs contributed to 26·9% of total deaths in Nepal where ischemic heart disease and stroke were the predominant CVDs, contributing 16·4% (UI 18·2–14·6) and 7·5% (UI 8·6–6·7) to total deaths, respectively.[4] Anxiety is common in patients with stroke and are associated with increased morbidity and mortality. Meta-analyses of point–prevalence rates are suggestive towards having post–stroke anxiety among one quarter.[5] A prospective cohort study was conducted in Scotland from 2015 to 2016 to find out different types of anxiety disorders present among patients with poststroke showed that out of 175 patients, anxiety disorder was present among 22% of patients.[6]

A retrospective study conducted in Kathmandu, Nepal from 2010-2011 to identify the correlation between common modifiable risk factors and stroke in Nepal showed that most of the patients had multiple risk factors which included: smoking (60.48%), alcohol consumption (41.43%), hypertension (38.57%), diabetes mellitus (10%), and valvular heart disease (3.33%).[7] A descriptive exploratory study conducted in Namibia in 2012 to assess the knowledge and practices of stroke survivors regarding secondary stroke prevention revealed that 55% of the stroke survivors who participated in the study were unable to name a single appropriate action to take to prevent secondary stroke. Only a relatively small percentage of stroke survivors comply with lifestyle changes prescribed to them like diet modification (8.3%), physical exercise (10%) and quit smoking (5%).[8]

Prevention of post stroke anxiety to reduce morbidity and mortality among stroke patients is to be focused. Prevention of recurrence of stroke through modifying risk factors and encouraging prevention practices is important.Thus, researchers designed this study to find out the stroke related anxiety, knowledge related to the risk factors of stroke and practices among stroke survivors to prevent secondary stroke.

MATERIAL AND METHODS

Descriptive cross-sectional study was conducted to find out stroke related anxiety and secondary stroke prevention practices among stroke survivors from 1st December 2020 to 4th June 2021 among 76 purposively selected stroke survivors attending medicine/neuro OPD of Universal College of Medical Sciences-Teaching Hospital (UCMS-TH), Rupandehi. Ethical approval was taken from the institutional review committee of UCMS-TH (IRC/030/20). Semi-structured interview schedule was developed by researchers by reviewing related literatures and with the guide of stroke survivor questionnaire interview schedule to collect data on stroke survivor socio-demographic characteristics, knowledge of risk factors of stroke and prevention practices of secondary stroke. Written informed consent was obtained from each respondent by clarifying the objective of the study. Descriptive statistics (frequency, percentage) were used with SPSS version 20.0 for data analysis.

Hospital Anxiety and Depression Scale (HADS), Nepali version,[9] was used to assess the level of anxiety. Hospital Anxiety and Depression Scale (HADS) which was originally developed by Zigmond and Snaith in 1983 comprises of 14 items in total, seven items assess anxiety and seven questions for depression, and takes 2–5min to complete. Each item is rated on a 4-point scale (ranging from 0= no not at all, to 3= yes definitely), total score ranging from 0-42 (0-21 for each subscale). HADS scoring were categorized as HADS, 0-7 "normal", HADS 8-10 "possible or borderline cases and HADS 11-21 "probable or abnormal cases of anxiety". It is useful for initial diagnosis and to track progression (or resolution) of psychological symptoms. It is one of the tool recommended by National Institute for Health and Care Excellence (NICE) for diagnosis of depression and anxiety.[10]

RESULTS

Out of 76 respondents those were stroke survivors, 84.21% were male and most (68.42%) of the respondents were above 50 years of age. Similarly, 43.42% of respondents had achieved secondary level of education and 30% of respondents were earning. Out of 76 respondents, most (64.47%) of the respondents had hypertension as the comorbidity (Table 1).

Table 1. Demographic characteristics of the respondents

Demographic characteristics	Frequency	Percentage
Gender (n=76)		
Male	64	84.21
Female	12	15.79
Age (n=76)		
≤ 50 years	24	31.58
>50 years	52	68.42
Comorbidities (n=76)		
Hypertension	49	64.47
Diabetes mellitus	7	9.21
Cardiac disease	11	14.47
Education Status		
Can read & write	60	78.95
Cannot read and write	16	21.05
Level of education (n=60)		
Primary	20	26.32
Secondary	33	43.42
Bachelor or above	7	9.21
Occupation (n=76)		
Earning	30	39.47
Not earning	46	60.53

Table 2. Anxiety level of the respondents (n= 76)

Level of anxiety	Frequency	Percentage
None (0-7 score)	57	75.00
Borderline (8-10 score)	10	13.16
Abnormal (11-21 score)	9	11.84
Total	76	100.00

Table 2 shows that out of 76 respondents, 13.16% had border line anxiety and 11.84% were abnormal level of anxiety.

Table 3. Knowledge of respondents on risk factors of stroke (n= 76)

Risk factors	Frequency	Percentage
Old age	72	94.74
Physical inactivity	42	55.26
Obesity	5	6.58
Fatty foods consumption	13	17.11
Smoking	46	60.53
Excessive alcohol consumption	48	63.16
Hypertension	70	92.11
Diabetes	5	6.58
Family history of stroke	66	86.84

Regarding knowledge on risk factors of stroke among 76 respondents, 94.74% said old age and 6.58% said obesity and diabetes as risk factors of stroke (Table 3).

Table 4. Prevention practices of the respondents

Respondents' secondary stroke prevention practices	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Took prescribed medicines for hypertension regularly (n=49)	42	85.71	7	14.29
Took prescribed medicines for diabetes regularly (n=7)	5	71.43	2	28.57
Took prescribed medicines for cardiac disease regularly (n=11)	8	72.73	3	27.27
Monitored blood pressure regularly (n=49)	13	26.53	36	73.47
Monitored blood sugar regularly (n=7)	4	57.14	3	42.86
Healthy diet consumption (n=76)	55	72.37	21	27.63
Performed regular exercise (n=76)	31	40.79	45	59.21
Reduced alcohol intake (n=43)	24	55.81	19	44.19
Quitted smoking (n=54)	28	51.85	26	48.15

Regarding prevention practices, 85.71% of respondents take medicine regularly for hypertension, 71.43% for diabetes and 72.73% for cardiac disease. Similarly, 26.53% respondents monitor blood pressure and 57.14% respondents monitor blood sugar regularly. Most of the respondents 72.37% consume healthy diet and 40.79% perform regular exercises as prevention practices. Similarly, 55.81% and 51.85% respondents had reduced alcohol intake and had quitted smoking respectively (Table 4).

DISCUSSION

Based on the findings of this study out of 76 respondents, 64.47% and 9.21% stroke survivors were having hypertension and diabetes as comorbidities respectively which is consistent with the study[8] of Namibia which shows that 61.7% and 13.3% of respondents were hypertensive and diabetic stroke survivors.

In this study 94.74%, 55.26%, 17.11%, 60.53%, 63.16%, 92.11%, 6.58% and 86.84% of the respondents had knowledge regarding old age, physical inactivity, fatty foods consumption, smoking, excessive alcohol consumption, hypertension, diabetes and family history of stroke respectively as risk factors of stroke which is inconsistent with the study[11] conducted in Nigeria which shows that 1.4%, 2.9%, 5.8%, 1.4%, 1.4%, 39.1%, 2.9%,and 1.4% of respondents knew old age, physical inactivity, fatty foods consumption, smoking, excessive alcohol consumption, hypertension, diabetes and family history of stroke respectively as risk factors of stroke. This inconsistency might be due to difference in the socio-demographic characteristics of the participants and availability of accessed information.

This study findings showed that 6.58% of respondents had knowledge on obesity as risk factors of stroke which is consistent with the study[11] conducted in Nigeria which shows that 5.8% of respondents knew obesity as risk factors of stroke.

In this study, out of 76 respondents, 72.37% of respondents consume healthy diet for prevention of secondary stroke which is consistent with the study conducted[12] in Saudi Arabia which shows that 70.7% of respondents consume healthy diet for prevention of secondary stroke. In present study, prevention practices among respondents showed that out of 54 smokers, 51.85% had quit smoking after stroke which is not consistent with the study of[12] Saudi Arabia which shows that 27.8 % respondents had quit smoking as prevention practices of stroke. In this study, out of 76 respondents, 40.79% respondents follow regular exercise which is not consistent with the study of[12] Saudi Arabia which shows that 31.7% of respondents follow regular exercise as prevention practices of stroke.

This study finding showed out of 43 respondents, 44.19% of continued alcohol intake which is not consistent with the study[8] conducted in Namibia which shows that 30.0% respondents continued alcohol intake.

In this study, findings showed that out of 49 respondents, 85.71% took prescribed anti-hypertensive medicines, 71.43% respondents took anti-diabetic medicines out of 7 respondents and 80% respondents out of 11 respondents took cardiovascular medications regularly post stroke which is not consistent with the study[13] of Lebanon which shows that 93% took anti-hypertensive, 51 % respondents took anti-diabetic medicines and 72.73% respondents took cardiovascular medications regularly post stroke as secondary stroke prevention practices.

Present study findings also showed that out of 7 respondents, 57.14% of respondents monitored blood sugar regularly and 26.53% out of 49 respondents monitor blood pressure regularly.

This study findings showed that out of 76 respondents, 75% had normal range of anxiety, 13.16% had borderline anxiety and 11.84 % were abnormal cases of anxiety which is consistent with the study[5] of Kathmandu, Nepal which shows that 71% respondents had normal range of anxiety, 16.1% had borderline anxiety and 12.9% had clinical range of anxiety.

CONCLUSION

Findings of the study showed presence of stroke related anxiety among stroke survivors and poor secondary stroke prevention practices. These data might be helpful for concerned authority to focus on management of post stroke anxiety. It is recommended to concerned authority to conduct awareness program on secondary stroke prevention practices.

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