

“Challenges faced by acute stroke survival patients, attending neurology OPD of a selected hospital in Kolkata.”

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ABSTRACT

Background:Stroke is a leading cause of mortality & disability worldwide. Despite the remarkable progression in the treatment of stroke, the life quality, psychological & social events caused by stroke received limited attentions. **Objective:**This study was conducted to identify challenges faced by acute stroke survival patients at neurology OPD of a selected hospital in Kolkata.**Methods:**A descriptive survey design was applied and total 104 acute (within 3 months following stroke) stroke survival patients were selected by non-probability purposive sampling technique. Socio-demographic characteristics were collected using a structured questionnaire and semi-structured interview schedule was used to identify the challenges faced by acute stroke survival patients.Challenges were assessed in five domains that is physical, psychological, interpersonal, social & financial domain.**Results:** It was identified from the study findings that 17% of acute stroke survival patients faced mild challenges, 66% patients faced moderate challenges and 16% faced severe challenges following stroke.The study findings also reflects that 100% of acute stroke survival patients face challenges in physical domain and in in physical domain score ranges from 13-40 with a mean of 28.2 and mean percentage of 70.5 which ranked as 1st and the interpersonal domain which range from 4-18 with a mean of 8.4 and mean percentage of 42 ranked as 5th challenge.There is no association between challenges with socio-demographic characteristics. **Conclusion:**Ultimately identifying the challenges of those patients will provide some information which will help the nurses to counsel the patient so that they can overcome the challenges.

Key words: Challenges–acute stroke survival patients–neurology OPD

1 INTRODUCTION

According to WHO¹ Stroke is the rapid development of clinical signs and symptoms and focal neurological disturbance lasting more than 24 hours or leading to death with no apparent cause other than vascular origin. The future burden of stroke in developing countries is likely to increase because of increasing prevalence of hypertension, fast-changing lifestyles, and population restructuring². Stroke is the third commonest cause of death after heart disease and cancer in developed countries³.

Disability which is caused by stroke has a massive impact on the life of a stroke survivor, with social consequences and physical consequences of stroke being equally devastating⁴. Stroke survivors are often greatly challenged by the experience of feeling hopelessness, helplessness, anxiety, and dehumanization⁵.

The long-term impact of stroke among stroke survivors found that social and emotional consequences which is one of the largest problematic area among stroke survivors and their caregivers⁶.After stroke the stroke survivors face various challenges which not only affect their quality of lives but also their family members for that reason sometimes they find themselves burden on their families.Physical, Social, psychological, financial and interpersonal burden among stroke patients is enormous. So it is important to make

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an effort to identify such issues through a target need assessment of the stroke patients and continuous multisite evidence-based research is needed to identify the best methods for communicating with patients, identifying patient's need, and treatment preferences. Similarly, challenges after stroke are major things as they affect individual in their every aspect of life. So, the study on challenges of stroke patients after stroke is chosen.

2 OBJECTIVES OF THE STUDY

1. To identify the challenges faced by acute stroke survival patients
2. To find out the association between challenges with selected socio-demographic variables.

3 PATIENTS & METHODS

The research design selected for this study was descriptive survey research design to achieve the objectives of the study. Following institutional ethics committee approval, total 104 acute stroke survival patients within three months after stroke, who can speak and understand Bengali, who will be available during the study period and who are willing to participate in this study with written consent were selected for the study. Data were collected between October 2019- November 2019. The study procedure was explained and informed consent was taken from the subjects at the time of selection. Purposive sampling technique was used to the select subjects, excluding those had history of severe substance abuse, psychiatric illness with psychiatric medication and aged <30 and >70 years.

To assess the challenges of stroke survivor semi structured interview schedule was used and data related to socio-demographic characteristics was collected through structured questionnaire. In this study challenges is something new and difficult which require great effort and determination. It refers to the problem or difficulties faced by the patient of acute stroke survival in physical, psychological, Interpersonal, social, and financial aspect. In this study challenges were assessed in these five domains. Validity & reliability of the interview questionnaire was established before final data collection. Validity was established by validation of its construction & content by a doctor of Neurology specialty, one Statistician and nurses from Medical Surgical Nursing field. Total 24 (Twenty four) questions were there to identify the different challenges and content validity index (CVI) was 0.8. Reliability of semi structured interview schedule was computed by Cronbach alpha to establish internal consistency. The reliability of the tool was found 0.82. The original English Version of interview schedule was translated into Bengali and back translated to English by two independent language experts and there was no significant differences found.

Analysis was done by using descriptive statistics that is frequency, percentage, mean and standard deviation. Challenges are categorized as mild, moderate and severe level

of challenges and that we have calculated by the formula Mild = < Mean -1SD (SD = Standard Deviation), Moderate = Mean \pm 1SD and Severe = Mean + 1SD. Fisher's exact test is used to determine the association for 2 X 2 contingency table and Chi-square is computed to find out the association for more than two contingency table. For this study association was calculated between challenges with socio-demographic characteristics.

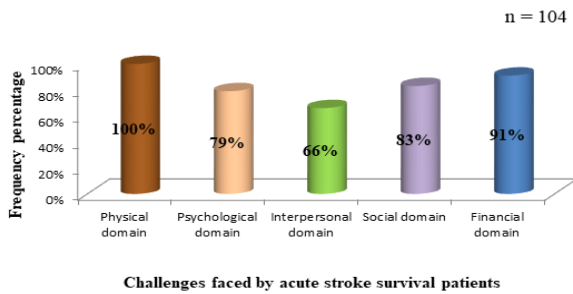
4 RESULTS

Socio-demographic characteristics of the study population revealed that 15.38% of the stroke survival patients are under the age group of >30-50 years. 60.58% of the stroke survival patients are male, 2.88% are unmarried and 27.88 % of them are illiterate. 39.42% had monthly family income Rs.6000-10000 and 31.73% of stroke survival patients have >one co-morbidities.

Data in figure 1 reflects that 100% of acute stroke survival patients face challenges in physical domain where as 66% of acute stroke survival patients face challenges in interpersonal domain. Their challenge in physical domain score range from 13-40 with a mean of 28.2 and mean percentage is 70.5 which ranked as 1st and the interpersonal domain which range from 4-18 with a mean of 8.4 and mean percentage is 42 which ranked as 5th (table-1). As a total challenge 17% of acute stroke survival patients face mild challenges, 66% face moderate and 16% face severe challenges after stroke (figure-2). Figure-3 suggests that there is no such acute stroke survival patient who does not face any physical challenge after stroke. Figure 4 depicts that 43% of acute stroke survival patients need help to eat where as 100% stroke survival patients need help during shopping and travelling nearby. Figure-5&6 suggests that 79% of acute stroke survival patients faced challenges in psychological domain out of which 23% have thoughts of death in their mind and 65% feel guilty for inability to rejoin in job following stroke. Total 34% of acute stroke survival patients face no challenge in interpersonal domain. Total 66% patients faced challenges in interpersonal domain out of which 24% of acute stroke survival patient's family members blame themselves for the disease, 54% stroke survival patients feel that their family members are not concerned for them (fig-7 & 8). Figure 9 & 10 depicts that 17% of acute stroke survival patients face no challenge in social domain and 83 % face it. Out of 83% patients 82% of stroke survival patients have lack of social interest & 21% patients are socially isolated. Fig-11 & 12 suggests that 91% acute stroke survival patients face challenges in financial domain out of which 50% of acute stroke survival patients feel that they are burden on their families for their treatment expense, 88% of acute stroke survival patients feel that their disease condition has affected the financial condition of their families. The study results also revealed that there is no association between challenges with socio-demographic variables (table-2).

Table 2. Association between challenges with the socio-demographic variable. N=104

Sl. No	Selected Socio-demographic variables	Below Median No.	At and above Median No.	F Value/Chi Square Value	P Value
1.	Age				
	1. >30 -50-	10	6	1.371	.241
	2. 51-70-	41	47		
2.	Gender				
	•Male	33	30	0.714	.398
	•Female	18	23		
3.	Marital Status				
	•Married	45	47	0.449	.798
	•Unmarried	1	2		
	•Widow/ Widower	5	4		
4.	Educational Status				
	•Illiterate	13	16	1.492	.683
	•Primary	8	11		
	•Secondary	26	24		
	•Higher Secondary and above	4	2		
5.	Occupation				
	•Employed	6	6	1.87	.392
	•Home Maker	13	20		
	•Others	32	27		
6.	No. of Co- Morbidity				
	•One	35	36	0.005	.938
	•> One	16	17		



Challenges faced by acute stroke survival patients

Figure 1. Bar diagram showing domain wise percentage distribution of challenges faced by acute stroke survival patients.

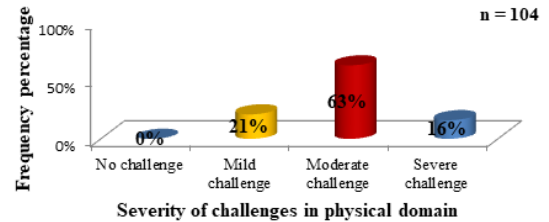
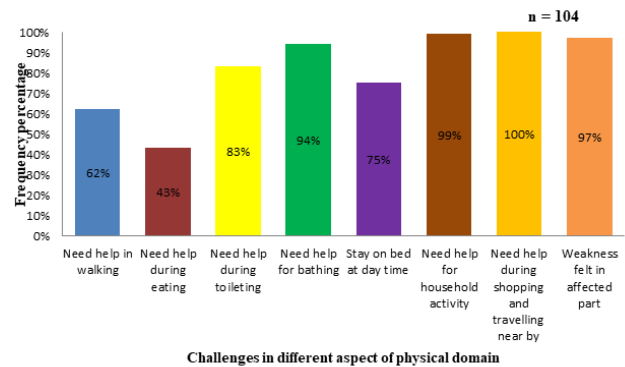


Figure 3. Cylindrical Bar diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients in Physical Domain

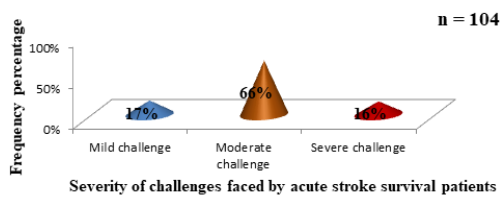
Table 1. Domain wise Range, mean, mean percentage and rank of challenges faced by acute stroke survival patients

Domain	Range	Mean	Mean percentage	Rank
Physical	13-40	28.2	70.5	1st
Financial	4-20	11	55	2nd
Psychological	5-24	12.7	50.8	3rd
Social	3-15	6.8	45.33	4th
Interpersonal	4-18	8.4	42	5th



Challenges in different aspect of physical domain

Figure 4. Bar diagram showing percentage distribution of challenges following acute stroke survival patients in different a spect o f p hysical domain



Severity of challenges faced by acute stroke survival patients

Figure 2. Cone diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients

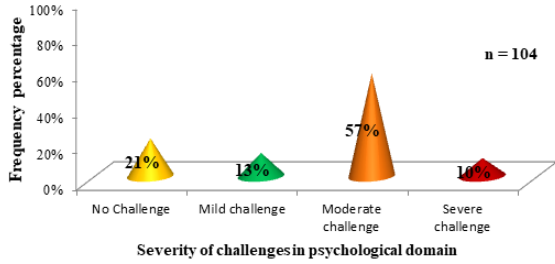


Figure 5. Cone diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients in Psychological Domain

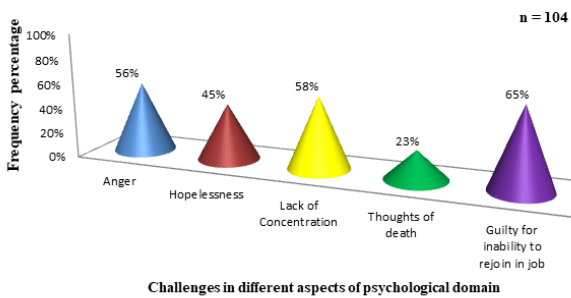


Figure 6. Cone diagram showing percentage distribution of challenges following acute stroke survival patients in different aspects of psychological Domain

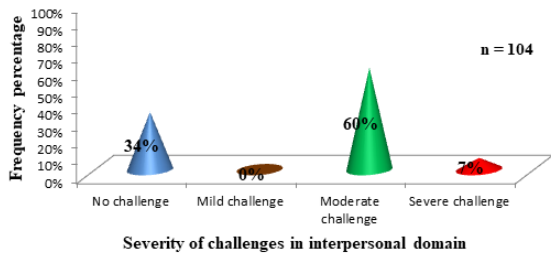


Figure 7. Cone diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients in interpersonal Domain

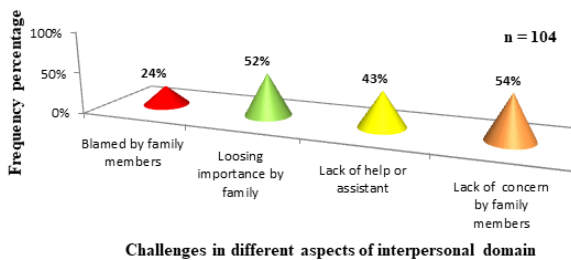


Figure 8. Cone diagram showing percentage distribution of challenges following acute stroke survival patients in different aspects of Interpersonal Domain

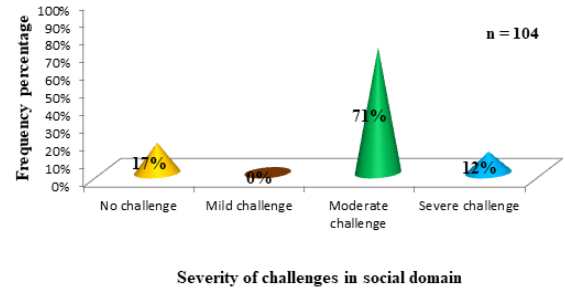


Figure 9. Cone diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients in social Domain

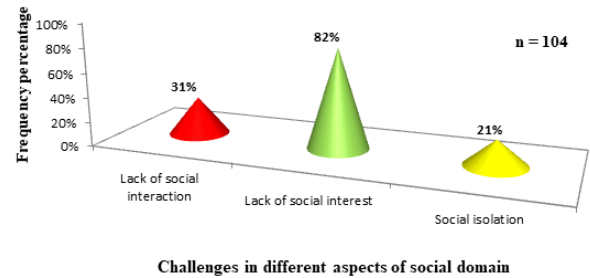


Figure 10. Cone diagram showing percentage distribution of challenges following acute stroke survival patients in different aspects of Social Domain

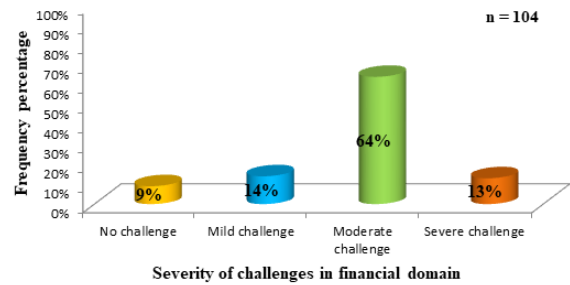


Figure 11. Bar diagram showing percentage distribution of severity of challenges faced by acute stroke survival patients in Financial Domain

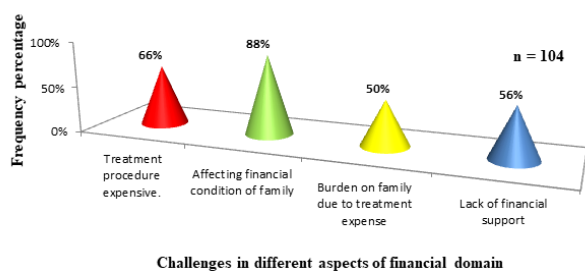


Figure 12. Cone diagram showing percentage distribution of challenges following acute stroke survival patients in different aspects of Financial Domain

5 DISCUSSION

In the present study, stroke patients are interviewed to ask about various physical, financial, psychosocial, social and interpersonal problems that they faced after stroke. The results of this study show that the burden of these problems is enormous in stroke patients. Kalavina R, ChisatiE, et al⁷ studied on the challenges and experiences of stroke patients and their spouses in Blantyre, Malawi, from that study it was identified that stroke patients were found to be challenged by lack of mobility and failure to perform basic functional activities such as walking and feeding using the affected hand, this study supported my present study findings which also identified that after stroke the stroke survivors faced many challenges in physical domain as they needed help in walking, eating, bathing, going to toilet, performing household activity and moving outside from the house. Similarly another study is conducted by Urimuben-shi G8, on profile of and challenges experienced by stroke patients admitted to Ruhengeri hospital in Rwanda, the qualitative results of the study revealed that the participants perceived the activity limitations including difficulty in walking, self-care activities such as bathing, toileting and dressing as well as domestic life activities such as cooking, washing and cleaning. This study finding also supports the present study findings. According to the present study findings 97% of patients feel weakness in any part of the body which is supported by the study conducted by Sharma M, Lal M, et al⁹.

Findings regarding the psychological domain of the present study is supported by a study conducted by Sharma M, Lal M et al⁹ on factors associated with physical and psychosocial problems among Indian stroke survivors, this study reveals that the stroke patients faced various problems after survivals which include feeling of anger, feeling of guilt, feeling of hopelessness, thoughts of death in mind. According to the study conducted by Astromet al¹⁰ hopelessness was probably the most common psychological problem among stroke survivors. 10.7% of stroke survivors had suicidal ideation according to the study by Dou J, Tang J et al¹¹ which contradict my present study findings that identified 23% of stroke survivors have thoughts of death in their

mind on the other hand a study by Teasdale TW and Engberg AW¹² revealed that 7% to 15% of stroke survivors had suicide ideation. This much variation is acceptable as psychological problem depends on everyone's mental makeup.

It is found from the present study that 54% of stroke survival patients feel that their family members are not concerned for them which also contradict a study conducted by Sharma et al⁹, where they identified that 75% of stroke survival patients feel that their families were over concerned for them. It may be because of diverse socio-economic characteristics of the subjects between the present study & Sharma et al⁹ study.

A qualitative study on financial barriers among stroke survivors by Ganesh A et al¹³ revealed that due to stroke related disability financial circumstances worsened among stroke survivors, that finding is quite similar to my present study findings which also revealed that after stroke 88% of acute stroke survival patients feel that their disease condition has affected their family's financial condition and 50% patients feel that they are burden on their families for the treatment expense. According to Sharma et al⁹ socio-demographic variables is associated with physical & psychological problems among stroke survivors but our study didn't find any association. There are lack of published study to compare such finding so further study with large sample size is recommended to find association between challenges & sociodemographic characteristics.

There are very few researches exist regarding the challenges faced by stroke survival patients so discussion regarding this issue is limited.

The strong points of this study are firstly strong eligibility criteria for inclusion & secondly researcher herself collected the data. The study has limitations too. Firstly non-probability sampling technique was used & small sample size. Patients with aphasia were excluded from the study but it is quite possible that excluded patients may have lots of challenges.

6 CONCLUSION

The study reveals that all (100%) stroke survival patients face physical challenges and most of (91%) stroke survival patients face financial challenges. Hence identifying the challenges of those patients will provide some information which will help the nurses for counseling so that they can overcome the challenges.

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