

Research Article

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## A Descriptive Study to Assess the Coping Strategies of Stroke Patients in Selected Hospital, Puducherry

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**Citation:** Manjubala Dash, Habibunisha H, Nivedhitha, Felicia Chitra A, Jayanthi S (2020) A Descriptive Study to Assess the Coping Strategies of Stroke Patients in Selected Hospital, Puducherry. J Gyn ob adv 1(1): 15-19.

**Received Date:** May 31, 2020; **Accepted Date:** June 25, 2020; **Published Date:** July 03, 2020

### Abstract

**Background:** Stroke was defined rapidly developing clinical signs of focal or global disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin. The global incidence of stroke is approximately 15 million people suffer stroke worldwide each year. The government is focusing on early diagnosis, management, infrastructure, public awareness and capacity building at different levels of health care for all the non-communicable diseases including stroke.

**Methodology:** This cross-sectional descriptive design aimed to assess the coping strategies of caregivers of stroke patient which was conducted in stroke clinic IGGGH, Puducherry. 60 subjects were selected for the study who fulfilled the inclusion criteria of the study. Modified Barthel index were used to assess coping strategies. Both inferential statistics and descriptive statistics were used in the study.

**Result:** This study assessed coping strategies of stroke patients among caregivers of stroke patients. 60 subjects were selected for the study who fulfilled the inclusion criteria of the study. Findings revealed that the caregivers were suffering from moderate level of coping <15 (63.3%) and had severe level of coping <10 (36.6%).

**Conclusion:** The study showed that the level of coping strategy among the caregivers of stroke patients. The result revealed that there was a moderate coping strategy among the caregivers of stroke patients.

**Keywords:** Stroke; Caregivers; burden; Coping Strategies;

### Introduction

A stroke happens when there is a loss of blood flow to part of the brain [1]. Your brain cells cannot get the oxygen and nutrients they need from blood, and they start to die within a few minutes. This can cause lasting brain damage, long-term disability, or even death [2]. Strokes can be divided into two major categories: ischemic

(85%) in which vascular occlusion and significant hypo perfusion occur and hemorrhagic (15%) in which there is extravasations of blood into brain or subarachnoid space [3].

Stroke carries a high risk of death survivors can experience loss of vision and or speech, paralysis and confusion. Stroke is also called because of the way it strikes people down [4]. Transient

ischaemic attacks of TIA- where symptoms resolve in less than 24 hours- have the best outcome, followed by stroke caused by Carotid stenosis (narrowing of the artery in the neck that supplies blood to the brain) blockage of an artery is more dangerous, with rupture of a cerebral blood vessel the most dangerous of all[5]. The term Cerebrovascular disease designs any abnormality of the brain resulting from a pathologic process of the blood vessels[6].

Annually 15 million people worldwide suffer a stroke. Stroke is uncommon in people under 40 years, when it does occur, the main cause is high blood pressure. However, stroke also occurs in about 8% of children with sickle cell disease[7]. High blood pressure and tobacco use are the most significant modifiable risks. For every 10 people who die stroke, four could have been saved if their blood pressure had been regulated.[8] Developing countries like India are facing a double burden of communicable and non-communicable disease[9].

Globally 70% of stroke and 87% of both stroke related deaths and disability – adjusted life year occur in low – middle income countries [10].Over the last four decades, the stroke incidence in low and middle income countries has more than doubled. During these decades stroke incidences has declined by 42% in high income countries [11]. As a first step the government of India has started the National Programme for prevention and control of cancer, diabetes, cardiovascular diseases & stroke (NPCDCS)[12]. The government is focusing on early diagnosis, management, infrastructure, public awareness and capacity building at different levels of health care for all the non – communicable diseases including stroke[13]. The best way to help prevent a stroke is to at a healthy diet, exercise regularly and avoid smoking and drinking too much alcohol[14].

The investigator likes to do study among caregivers of stroke patients regarding the patient's functional abilities of stroke patients.

One of the study conducted in Swedish by [15] longitudinal cohort study life situation and the case burden for stroke patients and their informal caregivers in a prospective cohort study among 390 caregivers. The result revealed that there was an association within the dyads regarding anxiety score.

Another One of the study conducted in China by [16] to investigate the anxiety/ depression of caregivers of stroke patents. This study used cross – sectional survey design and convenience sampling technique used. Totally 117 caregivers of stroke patients were enrolled. Data were collected from questionnaires. Hamilton anxiety scale, Hamilton depression scale and Zarit caregiver burden interview were performed. Which result noted both anxiety and depression were positively correlated with total care burden score (P,01) Anxiety and depression are common in the caregivers of stroke patients and are closely related to care burdens.

One of the important studies conducted in turkey by [17] to the

effect of home care for stroke patients and education of caregiver burden quality of life true experimental design was used. Tools were used patient and caregiver description form, care giving burden scale and SF – 36 quality of life scale among 43 caregivers. The study result indicates that the home care provided for stroke patients and education of caregiver decreased the caregiver burden and increased their quality of life.

Another important study conducted by [18] A Cross sectional qualitative study was conducted in Kampala, Uganda, Africa on caring for a stroke patient burden and experiences of primary caregivers. The data was collected in Depth interview, audiotape recorded and observation among 25 samples of caregivers. The study findings indicate that the mean age of 39.3 S.D 10.7 our finding highlight the need for interventions to support stroke patients and their caregivers.

### Objectives of the Study

1. To assess the knowledge of caregivers of stroke patients regarding their caring roles.
2. To assess the functional abilities of stroke patients from the care giver.

### Methodology

This cross-sectional descriptive design aimed to assess the coping strategies of caregivers of stroke patient which was conducted in stroke clinic IGGGH, Puducherry.60 subjects were selected for the study who fulfilled the inclusion criteria of the study. Modified Barthel index were used to assess coping strategies. Both inferential statistics and descriptive statistics were used in the study.

The above Table 1 describes the result showed that regarding gender distribution most of them at 66.6% were male and at least of them at 33.3% were female.

The frequency and distribution of age group among people shows that 61.6% of them belongs to age between 30 to 59 years, next 31.6 %of them belongs to age between 13 to 29 years and at least of 6.6% of them belongs to age between 60 to above.

The above Table 2 describes regarding level of the patients coping abilities according to Barthel index score range <15 moderate coping at the percentage of 63.3 and <10 severe coping at the percentage of 22.2.

The above Table 3 describes about the association of demographic variables with the coping strategies of the patients attender at the level of  $p < 0.05$  is not significant. In that Gender Male has 41.6% and Female has 20%

**Table 1: Distribution of demographic variables of caregivers of stroke patients**

S.no	Demographic variables	N=60	Percentage (%)
1	<b>Age</b>		
	- 13 to 29 years	19	31.6
	- 30 to 59 years	37	61.6
	- 60 to above	4	6.8
2	<b>Gender</b>		
	- Male	40	66.6
	- Female	20	33.4
3	<b>Education</b>		
	- Professional	7	11.7
	- Graduate	15	25
	- Intermediate/ diploma	8	13.3
	- High school	4	6.6
	- Middle school	16	26.6
	- Primary school	6	10
	- Illiterate	4	6.8
4	<b>Occupation</b>		
	- Professional	6	10
	- Semiprofessional	2	3.4
	- Clerical/ shop/farm	15	25
	- Skilled work	10	16.6
	- Semiskilled worker	7	11.6
	- Unskilled worker	6	10
	- Unskilled worker	14	23.4

**Table 2: Distribution of level of coping abilities among stroke patients caregiver**

S.NO	SCORE	N	%	MEAN	STANDARD DEVIATION
1.	Moderate Coping (<10)	38	63.4%	12.6	1.39
2.	Severe Coping (<15)	22	36.6%	7.47	1.62

**Table 3: Association of selected demographic variables**

S.no	Variables	score 1 n	%	score 2 n	%	chi square	degree of freedom	p value
1.	<b>CAREGIVER:</b>					2.8037	2	P=0.2461 P<0.05
	13 – 29 years	12	20	7	11.6			
	30 – 59 years	24	40	13	21.6			
	60 – above	2	3.3	2	3.3			
2.	<b>Gender</b>					0.0863	1	P=0.7683 P<0.05
	- Male	25	41.6	14	23.3			
	- Female	12	20	9	15			

3.	<b>Qualifications</b>	professionals	4	6.6	4	6.6	6.4495	6	P=0.3749 P<0.05
		graduate diploma	7	11.6	8	13.3			
		high school	5	8.3	2	3.3			
		middle school	4	6.6	-	-			
		primary school	11	18.3	5	8.3			
		illiterate	5	8.3	1	1.6			
			3	5	1	1.6			
4	<b>Occupations</b>	professionals	3	5	1	1.6	6.6577	6	P=0.3537 P<0.05
		semiprofessional	1	1.6	7	11.6			
		shop skilled	8	13.3	6	10			
		semiskilled	4	6.6	2	3.3			
		unskilled	5	8.3	2	3.3			
		unemployment	4	6.6	2	3.3			
			12	20					
5.	<b>Income</b>	Rs.2000 & above	34	56.6	20	33.3	0.0319	1	P=0.8583 P<0.05
		Rs.1000 - 1999	4	6.6	2	3.3			

## Discussion

The result of the present study showed that 38 (63.4%) has moderate coping abilities and 22 (36.6%) has severe coping abilities.

The present study was supported by the study conducted by Zhu W, Jiang Y (2019) Study was conducted in China on determinant of caregiver burden of patients with hemorrhagic stroke. Prospective longitudinal design was used. The data were collected via face to face or telephonic interview among 202 caregivers. Tools used were Bakas caregiver outcome scale, demographic variables. The results revealed that Caregiver burden decreased from T1 to T3 significantly. The physical function, depression of stroke survivors, and self-rated burden of caregivers were the most important determinants for overall caregiver burden. The factors identified explained 41.6% to 67.4% of overall burden.

The present study was supported by Chai- Eng Tan, et.al (2018) Study was conducted in Malaysia on Validation of the care giving knowledge questionnaire measuring knowledge regarding positioning and feeding among Malaysian informal caregivers of stroke patents. In this study quasi experimental design was used. Tools were Back to back translation was used to produce a bilingual version of the questionnaire. Hand drawings were used to replace photographs from the original questionnarie. Result indicates CKQ-My has good internal consistency and construct validity for the subscales measuring stroke caregivers' knowledge about positioning and feeding of stroke patients. It has potential as an assessment of effectiveness of caregiver training and for future studies on long-term stroke outcomes in Malaysia.

The present study was supported by ArkanG,BeserA,OzturkV ,BozhurtO,GulbaharS (2019)The quasi experimental design was

conducted in Turkey the effects on urinary outcome of patients and caregivers burden of pelvic floor muscle exercises based on the health belief model at home by post-stroke patients among 20 caregivers. The study result revealed that A statistically significant difference was found between the two groups in terms of the mean scores they obtained from the ICIQ-SF and I-QOL, the number of urinary incontinence episodes, pad test after interventions and quality of life scores ( $p < 0.05$ ), while no statistically significant difference was found between the groups in terms of the mean scores for the Burden Interview ( $p > 0.05$ ). An increase was determined in the self-efficacy of the patients in the experimental group after the PFMEs ( $p < 0.05$ ).

## Conclusion

The importance of providing adequate information to the caregivers of stroke patients depends on the patients' need are the core part of the health care system.

## Recommendation

- A similar study can be conducted for various conditions.
- A similar study can be conducted in intervention studies.
- A similar study can be conducted in large sample.

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