ASSESS THE ROLE BURDEN AND ATTITUDE OF CARE GIVERS TOWARDS POST STROKE REHABILITATION IN SELECTED HOSPITALS, CHENNAI.

Dissertation submitted to

THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY

CHENNAI-600 032

In partial fulfilment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING

APRIL – 2016
ASSESS THE ROLE BURDEN AND ATTITUDE OF CAREGIVERS
TOWARDS POST STROKE REHABILITATION IN
SELECTED HOSPITALS, CHENNAI,

Certified that this is the bonafide work of

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Approved by the Dissertation Committee in February 2015

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CHAPTER I

INTRODUCTION

The brain is the vital organ which is also called as body’s control centre. It is the central information processing organ of the body. It is responsible for the control of multiple complex functions such as movement, speech, emotions, and consciousness. Brain requires glucose, blood and oxygen to function effectively. Without blood supply the brain cells start to die leading to brain damage. Approximately two million brain cells die every minute during a stroke which increases the risk of brain damage, disability and death.

Stroke is the sudden death of brain cells due to lack of oxygen. Stroke occurs when blood flow to the brain is damaged resulting in abnormal function of brain. It is caused by blockage or rupture of an artery in the brain (Taylor, 2012).

The World Health Organization defines stroke as the rapidly developing clinical symptoms and/or signs of focal (at times global) disturbances of cerebral functions with symptoms lasting more than 24 hours or leading to death with no apparent cause, other than that of vascular origin. Stroke is the one of the leading causes of death and disability. Stroke is the third biggest killer in India after heart attack and cancer. An estimated 5.7 million people died from stroke in 2005 and it is projected that these deaths would rise to 6.5 million by 2015. It is estimated that by 2050, 80% stroke cases in the world would occur in low and middle income countries mainly in India and China (WHO, 2010).
The percentage of death due to stroke is higher for people aged 65 and older. Of those, who survive 50% to 70% will be functionally independent and 15% to 30% will live with permanent disability. (American Heart Association, 2013)

In developing countries like India, is facing double burden of communicable and non-communicable diseases. The estimated adjusted prevalence rate of stroke range was 84-262 out of 100,000 in rural and 334-424 out of 100,000 in urban areas. The incidence rate is 119-145 out of 100,000 based on the recent population based studies. There is also a wide variation in case fatality rates with the highest being 42% in Kolkata. (Jeyaraj, p.et.al.2013)

The Indian Council of Medical Research (ICMR) estimates that in 2015 there were 9.3 lakh cases of stroke and 6.4 lakhs death due to stroke in India, most of the people being less than 45 years old. World Stroke Day is observed on every year on October 29th by World Stroke Organization, with specific theme to create awareness among general public about stroke.

Deptiyibha,M.T.et.al.(2010) conducted a study to point out the prevalence of stroke. Globally stroke is the third commonest cause of mortality and fourth leading cause of disease burden. By 2050, it is anticipated that 80% of stroke events would occur in people living in developing regions of world and mainly younger people less than 60 years of age who are active in work force. Indian studies showed that 10 to 15 % of stroke occurs below the age of 40 years. In India, nearly one fifth of patients with first attack of stroke admitted to hospitals were aged less than 40 years. In Trivandrum, the incidence of stroke in people aged less than 40 years was 3.8% and among aged less than 50 years the incidence was 9.5% and 18.1% among people aged less than 55 years. In 2009, 145 out of 1,00,000 population in India suffered from stroke.
Stroke can cause five types of disabilities, paralysis or problems controlling movement, sensory disturbances including pain, problems in using or understanding language, problems with thinking and memory and emotional disturbance. Effective post stroke rehabilitation, intervention initiated early after stroke can enhance the recovery process and minimize functional disabilities. Post stroke rehabilitation begins during the acute hospitalization as soon as the diagnosis of stroke is established and life threatening problems are under control. The highest priorities during this early phase are to prevent a recurrent stroke and complication. After the acute phase of stroke care, the focus of care turns to assessment and recovery of any residual, physical, and cognitive deficits, as well as compensation for residual impairment. (Lewis, 2012)

BACKGROUND OF THE STUDY

Rehabilitation focuses on the existing capacities of the affected person and brings him to the optimum level of his or her functional ability by the combined and co-ordinated use of medical, social, educational and vocational measures.

Rehabilitation is probably one of the most important phases of recovery for many stroke survivors. It helps stroke survivors to relearn skills that are lost when part of the brain is damaged. It doesn’t reverse the effects of a stroke. The goals of rehabilitation are to build the strength, capability and confidence, so that the stroke survivor continue, daily activities despite the effects of stroke. In this ongoing process, family members develop skills to help while the patient is still in the hospital and at home after discharge.
In India stroke rehabilitation unit are predominantly available in urban areas that to in private hospitals. Even though India is a leading generic drugs producer still many people can’t afford the commonly used secondary prevention drugs. As a first step the government of India has started the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS)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. (Jay raj, P. et al. 2013)

Over the years, the organization and delivery of stroke care have taken many forms. Assessment of the effect of stroke care organization and settings is difficult because of the extreme variability of organizational settings. For example, on the one extreme, stroke rehabilitation services can be provided in an outpatient setting, 1 hour per day, 3 days per week, by one therapist. At the other end of the structural continuum, rehabilitation services can be provided in a rehabilitation hospital setting, 5 hours per day, 7 days per week, by a team made up of several clinicians. (Duncan.M, et al., 2011)

Haley,E.W. et al.(2013) conducted a prospective epidemiological study to assess the problems and benefits reported by stroke family caregivers among 75 stroke survivors. The purpose of this study was to determine the prevalence and stressfulness of stroke related problems, and perceived benefits of caregiving. Caregivers were given a comprehensive telephone interview 8 to 12 months after the stroke, using measures of stroke patient problem, caregivers appraisals of the stressfulness of these problem, and perceived benefits of caregiving. Caregivers rated patients with mood and memory problems, and giving physical care, as the most stressful problems. Caregivers also
reported many benefits from caregiving, with over 90% reporting that caregiving enabled them to appreciate life more.

NEED FOR THE STUDY

Stroke is one of the most disabling chronic diseases. The majority of patients with stroke who live in the community, frequently using long term professional care. Most care, however, is provided by relatives, primarily partners. While these care givers themselves have to cope with the devastating effects that stroke had on their partner, an increasing amount of demands is made on them. Consequently, caregivers may experience unacceptably high levels of burden, leading to isolation and exhaustion.

The care givers are the back bone of the service provided to people affected by stroke. A care giver has to do a number of things to stroke patient’s example; lifting, turning him or her in bed, bathing, dressing, feeding, cooking, shopping, paying bills, giving medicines, keeping him or her company, providing emotional supports. Stroke patients and their caregivers have large gaps in stroke knowledge and have suboptimal personal health behaviours, thereby putting the patient at high risk for recurrent stroke. Education programmes are needed for closing these gaps in knowledge and personal health behaviors.

Initial gains in rehabilitation are more effectively maintained if the family is healthy, involved, and supportive. Various interventions have been developed to support family members and to improve their involvement in the care process, such as visits by a specialist outreach nurse, long term counselling, and a stroke family care worker. Global measures of psychological health have often been used to study caregivers’ burden. Although a global measure may identify the level of burden, more specific measures are
needed to display the most relevant care giving-related problems to yield guidelines for the development of effective, supportive treatment strategies. (American stroke association, 2013)

Several studies have investigated the influence of either patient or caregiver characteristics on caregiver burden. The burden of care giving can only be partly predicted from stroke severity or patient’s dependency in performance of daily activities. Characteristics of caregivers themselves are also important, and include physical and psychosocial health problems. (American Stroke Association, 2013)

The investigator during her clinical posting had an opportunity to interact with caregivers of stroke patients at post stroke rehabilitation ward. Most of the caregivers expressed their burden towards continuous care of the stroke patient. This made the investigator to select this topic.

**STATEMENT OF THE PROBLEM**

A study to assess the role burden and attitude of caregivers towards the poststroke rehabilitation in selected hospitals, Chennai.
OBJECTIVES

1. To assess the role burden of caregivers towards post stroke rehabilitation.

2. To assess the attitude of caregivers towards post stroke rehabilitation.

3. To determine the relationship between the caregivers role burden and the attitude towards post stroke rehabilitation.

4. To find the association between the level of caregivers role burden and attitude towards post stroke rehabilitation with the demographic variables.

OPERATIONAL DEFINITION

ASSESS - It is an act of gathering information regarding level of role burden and attitude of caregivers towards post stroke rehabilitation and analyzing the data using statistical methods.

ROLE BURDEN – In this study, it refers to physical, psychological, social, financial hardships experienced by the care givers of patients with stroke which was measured using caregivers burden scale.

ATTITUDE - In this study, it refers to the feeling and thinking of caregivers towards post stroke rehabilitation, elicited through Likert scale.

CARE GIVERS - In this study, it refers to the patient’s relatives who attend to the immediate needs and takes care of patients in post stroke rehabilitation ward.

POST STROKE REHABILITATION - It refers to the period of rehabilitation starting from 2 weeks, after the initial attack of stroke to 6 months duration.
ASSUMPTIONS

1. The care givers of patient with stroke will experience some level of role burden as a result of providing continuous care.
2. The level of burden increases overtime.
3. The level of burden of care givers influences their attitude.

DELIMITATION

1. The sample is limited to sixty caregivers of patients with stroke in post stroke rehabilitation ward.
2. Duration of study is limited to 4 weeks.

PROJECTED OUTCOME

The study will help to assess and correlate the level of role burden and attitude of care givers towards post stroke rehabilitation.

The findings of the study will help the investigator to make recommendations regarding strategies to enhance the understanding of care givers role burden and its reduction measures.

It will also help the investigator to make recommendations to develop positive attitude among care givers towards post stroke rehabilitation care.
CONCEPTUAL FRAMEWORK

A concept is an image or symbolic representation of an abstract idea. Chin and Krammer (1999) defined a concept as a “complex mental formulation of experience.” A framework is simply the structure of the research idea or concept and how it is put together. So conceptual framework is a set of coherent ideas or concepts organized in a manner that makes the investigator easy to communicate to others.

Miles and Huberman (1994) defined a conceptual framework as a visual or written product, one that explains, either schematically or in narrative form, the main thing to be studied—the key factors, concepts or variables and the presumed relationships among them. It is the operationalization of the theory. It may be an adaptation of a model.

The conceptual framework developed for this study is based on “Rosenstoch’s Health Belief Model (2004) “This model provides a way of understanding the importance of assessing the role burden and attitude of caregivers in relation to their health and wellbeing and the way they comply with the instructions given by the health care professionals.

The model consists of three major factors: (i) individual perceptions (ii) modifying factors (iii) likelihood of action.

1. Individual perceptions: It represents the individual’s perception of susceptibility and seriousness to an illness. In this study individual perception denotes assessment on the perception of role burden caregivers of patients with stroke in following aspects such as physical, psychological, financial and social burden and their
attitude towards post stroke rehabilitation. The role burden and attitude differ from individual to individual.

(2) Modifying factors: It refers to the factors that modify a person’s perceptions. In this study demographic variables of caregivers such as age, gender, relationship with patient, religion, type of family, educational status, occupation, family monthly income, marital status, area of residence, duration of being a caregiver, previous knowledge about stroke rehabilitation, source of information, dependency level of stroke patient, amount of time spent on patient care every day may modify their perception of role burden and attitude regarding post stroke rehabilitation.

(3) Likelihood of action: Nurses play a major role in helping individuals implement healthy behaviors. In this study, likelihood of action denotes, measures that help in the reduction of role burden of caregivers and develop favourable attitude towards post stroke rehabilitation. Caregivers perception of role burden and attitude towards post stroke rehabilitation can be modified. Caregivers with No or minimal burden, mild level of role burden and favorable attitude towards post stroke rehabilitation require reinforcement. Caregivers with moderate and severe role burden and those who have moderate and poor attitude towards post stroke rehabilitation needs awareness regarding the importance of post stroke rehabilitation. The awareness can be created by mass awareness and mass media programme, preparation and distribution of information booklets, magazine about the importance of post stroke rehabilitation among caregivers.
CONCEPTUAL FRAMEWORKS BASED ON ROSENTOCH’S HEALTH-BELIEF MODEL 2004
CHAPTER II
REVIEW OF LITERATURE

Review of Literature is a critical examination of publications related to the topic of interest. The review should be comprehensive and evaluative. The review of literature helps to plan and conduct the study in a systematic and scientific manner.

This chapter is discussed under the following headings

Part 1 General information related to stroke.

Part 2 Studies related to caregivers role burden towards post stroke rehabilitation

Part 3 Studies related to attitude of caregivers towards post stroke rehabilitation

PART 1- GENERAL INFORMATION RELATED TO STROKE

Stroke is a heterogeneous, neurological syndrome characterized by gradual or rapid, non-convulsive onset of neurological deficits that fit a known vascular territory and that last for 24 hours or more. (Hickey, J.V. 2009)

There is only limited potential for successful medical treatment to reverse the neurological sequelae of a stroke, therefore intervention aimed at post stroke rehabilitation are extremely important. Age, race, sex, and family history are all biological indicators of enhanced stroke susceptibility but these are inherent characteristics which cannot be altered. The modifiable risk factors such as hypertension, heart diseases, atrial fibrillation, diabetes mellitus, tobacco usage, high lipid level, hematological factors and obstructive sleep apnoea also act as major cause of stroke.
According to the National Institutes of Health (NIH) over 75% of patients survive a first stroke during the first year and over half of the populations survive beyond 5 years. The survivor’s of hemorrhagic stroke have a greater chance of recovering function than those who suffer ischemic stroke.

PART-II STUDIES RELATED TO CAREGIVERS ROLE BURDEN TOWARDS POSTS STROKE REHABILITATION.

Rajesh Kumar.K et.al (2015) conducted a study to explore burden and coping strategies in caregivers of stroke survivors and identified the relationships between burden and coping strategies. Data was collected among 100 caregivers of the stroke survivors from selected community setting and outpatient department of different tertiary care hospitals at Punjab. The results revealed that level of burden reported by caregivers of stroke patient was high. The most coping strategies used by caregivers were acceptance, getting social support, problem solving and seeking help of religious things. Burden was significantly correlated with coping strategies.

Haley, E.et.al. (2012)reviewed the literature on family care giving for stroke patients to evaluate the effects of stroke care giving on caregivers’ well-being. A total of 20 published stroke caregiving research articles were included in this review. Across studies, the effects of stroke care giving on caregivers well-being and the significant predictors of caregivers depression were analyzed. The results showed that stroke caregivers have elevated levels of depression at both the acute and chronic stroke phase.
Koenig, K.L.et.al. (2012) conducted a prospective cohort study of stroke related knowledge and health behaviors among post stroke patient in inpatient rehabilitation ward. A total of 130 stroke patients and 85 caregivers were interviewed after ischemic stroke. The result reveals that caregivers were more knowledgeable than stroke patients. Stroke patients participating in inpatients rehabilitation and their caregivers have large gaps in stroke knowledge and have suboptimal personal health behaviours, thereby putting patient at high risk for recurrent stroke. The findings highlighted the need to develop stroke education programs for rehabilitating patients.

Bos, D.N.et.al. (2011) conducted a study to assess the burden of informal care giving for stroke patients and identification of caregivers at risk of adverse health effects in Institute for Medical Technology Assessment, Rotterdam, Netherlands. They studied a sample of 151 stroke survivors and their primary informal caregivers and collected data through patient and caregiver interviews 6 months after stroke. Both the level of subjective burden and the condition of feeling substantially burdened were associated with both caregiver's and patients health-related quality of life, patient's age, and the number of care giving tasks performed.

Deptiyibha, M.T.et al. (2010) conducted a study to point out the prevalence of stroke. Globally stroke is the third commonest cause of mortality and fourth leading cause of disease burden. By 2050, it is anticipated that 80% of stroke events would occur in people living in developing regions of work and mainly younger people less than 60 years of age who are active in work force. Indian studies showed that 10 to 15% of stroke below the age of 40 years. In India nearly one fifth of patients with first attack of stroke admitted to hospitals were aged less than 40 years. In Trivandrum, the incidence of stroke in people aged less than 40 years was 3.8% and among aged less than 50 years
the incidence was 9.5% and 18.1% among people aged less than 55 years. In 2009, 145 out of 1, 00,000 populations in India suffered from stroke.

Kalra, L. (2010) evaluated the effectiveness of training care givers to reduce burden of stroke in patients and their caregivers by randomized controlled trial in stroke rehabilitation unit at Kings College Hospital, UK. 300 stroke patients and their caregivers were included for the study. The intervention was training care givers in basic nursing and facilitation of personal care techniques and the findings identified that cost of care over one year for patients whose caregiver had received training were significantly lower. Trained care givers experienced less care giving burden, anxiety, depression and had higher quality of life. The findings stressed that training care givers during patients’ rehabilitation would reduce cost and caregivers burden.

Rimier, W.J.M. et al. (2009) conducted a study to describe the level and specific nature of the burden of care giving as experienced by stroke patient’s partners, and to estimate the relative contribution of patients and partner characteristics to the presence of partners burden. Burden of care giving was assessed in 115 partners at 3 years after stroke. They concluded higher levels of burden are primarily related to partners’ emotional distress and less to the amount of care they provided, or to patients’ characteristics.

PART III STUDIES RELATED TO ATTITUDE OF CAREGIVERS TOWARDS
POST STROKE REHABILITATION.

Camak,D.J. (2015) conducted a literature review to address the burden of stroke caregivers. This review was limited to older adult family members caring for older adult stroke survivors and the literature published between 2009-2014 related to the lived experience of caregivers of stroke survivors and the role of nursing related to mitigating
caregiver burden. The study results concluded that numerous factors impact the lived experience of caregivers providing care for the stroke survivor. Assuming the role of caregiver has an inherent risk which can result in health compromises for the caregiver. It is the responsibility of the nurses to assess, design interventions and provide education on to prepare the caregiver for the demands of the role.

Grant, J.S. et al. (2014) conducted a randomized 3group repeated measures experimental design, among 74 stroke survivors with diagnosis of ischemic stroke and their primary family caregivers. The purpose of this study was to quantify the impact of social problem solving telephone partnerships on family caregivers outcomes, after stroke survivors are discharged home from a rehabilitation facility. The result indicates that problem solving training may be useful for family caregivers of stroke survivors after discharge from rehabilitative facilities.

Haley, E.W. et al. (2013) conducted a prospective epidemiological study to determine stressfulness of stroke related problems and perceived benefits of caregiving, by caregivers of stroke survivors. A total of 75 caregivers were given a comprehensive telephone interview 8to 12 months after the stroke, using measures such as stroke patient problem, caregivers appraisals of the stressfulness of these problem, and perceived benefits of caregiving. Caregivers rated patient with mood, (depression, loneliness and anxiety), memory and physical care(bowel control), as the most stressful. Caregivers also reported many benefits from caregiving, with over 90% reporting that caregiving enabled them to appreciate life more.
Tomoko, A. et al. (2013) conducted a study on caregivers burden and health related quality of life among Japanese stroke caregivers. Majority (74%) of caregivers were women and or spouse (71%). Men caregivers were significantly older. The results revealed that wives reported significantly higher burden than other caregivers. Increased burden significantly decreases health related quality of life particularly mental health. No relationship existed between increase of burden and caregiver physical and social functioning.

Damen, S. et al. (2011) conducted a study among 273 caregivers at Netherlands on informal caregivers attitude towards respite care. It was found that caregiver attitude was apparently associated with caregiver educational level, employment status, health and happiness as well as care recipient gender, duration and intensity of caregiving, relationship with the patient co-residence, need for surveillance, subjective burden and process utility of caregiving.

Cleusa, P. et al. (2011) conducted a cross-sectional survey to investigate the prevalence of self-reported disability, dependence and caregiver strain in Latin America (LA), China and India. The samples were individuals aged 65 years living in specified catchment areas. The result showed that prevalence of self-reported stroke ranged between 6% and 9% across most LA sites and urban China, but was much lower in urban India (1.9%), and in rural sites in India (1.1%), China (1.6%) and Peru (2.7%). The proportion of stroke survivors needing care varied between 20% and 39% in LA sites but was higher in rural China (44%), urban China (54%) and rural India (73%). Comorbid dementia and depression were the main correlates of disability and dependence.
Tara Cusack, E. et al. (2011) conducted a randomized controlled trial to determine the effectiveness of Family Mediated Exercise Intervention (FAME) among acute stroke patients at Dublin. Forty participants with acute stroke were assigned to control group who received routine care with no formal input from their family members and the FAME group received routine therapy and in addition lower limb FAME therapy for 8 weeks. The outcome measures were assessed after three months follow-up in which the FAME group patient had significant improvement on walking and had regular follow-up. The family members in FAME group reported that a significant decrease in their level of caregiver strain at the follow up when compared with those of control group. The findings proved that FAME intervention can serve to optimize patient recovery and caregiver burden following stroke.

Baumann, et al. (2011) conducted a study to analyze the associations between increased residual disability among post stroke survivors and the repercussions for the lives of informal caregivers at University of Luxembourg, Belgium. 215 stroke survivors were recruited from each of the 22 French regions. Lack of autonomy among stroke survivors was associated with the material difficulties. Being male caregivers was strongly associated with a feeling of injustice. A low educational level was linked to an increased feeling of fear and a greater feeling of isolation. Increased dependency following stroke lead to improvement in caregivers social relationships.

Aileen, L. et al. (2011) conducted a cross-sectional study to describe dyads combined life satisfaction and to understand this relationship to the perceived impact of stroke in everyday life and caregiver burden at Department of Neurobiology, Karolinska Institute, Stockholm, Sweden. The life satisfaction of persons and their informal caregivers was measured in 81 dyads one year post stroke. The group were compared
and analyzed regarding levels of caregiver burden, measured with the caregiver burden scale, and the perceived impact of stroke in everyday life, measured with the stroke Impact scale (SIS). The results showed that (40%) of dyads were satisfied with life. (26%) were dissatisfied and discordant were (34%) were discordant. The satisfied dyads reported a significantly lower impact of the stroke in everyday life compared with the dyads who were not satisfied.

Aprile, I. et al. (2010) studied the effects of rehabilitation on quality of life of patients with chronic stroke. The data showed that rehabilitation in patients with chronic stroke lessen disability and improve physical and social functions and that repeated cycles of treatment are needed to maintain the level of improvement.
CHAPTER III

METHODOLOGY

This study was undertaken to assess the role burden and attitude of care givers towards the post stroke rehabilitation in selected hospitals, in Chennai. This chapter includes research design, settings of the study, population, sampling technique, criteria for selection of samples, sample size, description of the tool, validity of the tool, pilot study and procedure for data collection and plan for data analysis.
## SCHEMATIC REPRESENTATION OF METHODOLOGY

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*Figure 2. Schematic representation of methodology*
RESEARCH APPROACH

The research approach used in this study was evaluative approach.

RESEARCH DESIGN

The research design used in this study was descriptive design.

SETTING OF THE STUDY

This study was conducted in the following settings.

PILOTY STUDY

Setting-I

Voluntary Health Services Multi-Specialty Hospital and Research Institute.

It is a 465 bedded tertiary hospital which is located at Taramani, Chennai-113

MAIN STUDY

Setting –I

New Hope Brain & Spinal centre Hospital,

It is a 100 bedded hospital which is located at Poonamallee High Road, kilpauk, Chennai.

Setting-II

Priyadarshini clinic

It is a 100 bedded Neurospeciality hospital which is located at West cross Road, M.K.B. Nagar, Chennai.
POPULATION OF THE STUDY

The population of this study consisted of male and female caregivers of patients with stroke in post stroke rehabilitation ward in selected settings, Chennai.

SAMPLE OF THE STUDY

The study sample consisted of caregivers of patients with stroke in post stroke rehabilitation ward in selected settings, Chennai who fulfilled the inclusion criteria.

CRITERIA FOR SELECTION OF THE SAMPLES

INCLUSION CRITERIA

Caregivers of patients with stroke who were,

- willing to participate.
- in the age group of 30 – 45 above.
- able to understand Tamil or English.

EXCLUSION CRITERIA

- Pilot study samples.
- Care givers with paid servant maids.

SAMPLING TECHNIQUE
The sampling technique used in this study was non probability purposive sampling.

SAMPLE SIZE

A total of 60 caregivers of patients with stroke were selected in the above settings.

DATA COLLECTION TOOL

Interview was conducted by using semi-structured interview schedule. The tool was developed after the literature review and guidance from experts.

DESCRIPTION OF DATA COLLECTION TOOL

The tool consisted of two parts

PART I

Section A: It consisted of 15 semi-structured items to assess the demographic variables of caregivers like age, gender, religion, relationship with patient, marital status, type of family, education, occupation, monthly income, area of residence, previous knowledge about stroke, source of information, duration of being a caregiver, dependency level of their stroke patient, amount of time spent with patient every day.
PART II

SECTION –A: ASSESSMENT OF LEVEL OF ROLE BURDEN OF CAREGIVERS

Caregiver role burden scale was used to assess the role burden of caregivers, which is modified and adapted from caregiver burden Inventory University of Utah, Gerontology Interdisciplinary program. It consists of 25 items under the components of physical, (8) psychological, (10) financial (3) and social burden (4)

SECTION –B: ASSESSMENT OF LEVEL OF ATTITUDE OF CAREGIVERS

A 5 point likert scale (Agree, Strongly agree, Uncertain, Disagree, Strongly disagree) was used to assess the attitude of caregivers towards post stroke rehabilitation. It consists of 12 statements including equal number of both positive (6) and negative (6)

SCORING AND INTERPRETATION

Part II-Section –A: caregivers burden scale was used to assess level of role burden of caregivers towards post stroke rehabilitation which consists of 25 items. Each item was given scores like Never-0, Rarely-1, Sometimes-2, Often-3, Always-4. The total score was 100.

Obtained Score

\[
\text{Percentage} = \frac{\text{Obtained Score}}{\text{Total Score}} \times 100
\]
Based on the percentage, the level of role burden was interpreted as follows:

<table>
<thead>
<tr>
<th>LEVEL OF ROLE BURDEN</th>
<th>GRADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>No or Minimal burden</td>
<td>0&gt;25</td>
</tr>
<tr>
<td>Mild burden</td>
<td>25&gt;50</td>
</tr>
<tr>
<td>Moderate burden</td>
<td>50&lt;80</td>
</tr>
<tr>
<td>Severe burden</td>
<td>80&lt;100</td>
</tr>
</tbody>
</table>

**Section-B**: A 5-point Likert scale was used to assess the attitude of care givers towards post stroke rehabilitation. It consists of 12 statements, each positive statement was given scores like Strongly agree-5, Agree-4, Uncertain-3, Disagree-2, Strongly Disagree—1. Each negative statement was given scores like Strongly disagree-5, Disagree-4 Uncertain-3, Agree-2, Strongly agree1. The total score was 65.

Obtained Score

Percentage= ---------------X100

Total Score

Based on the percentage, the level of attitude was interpreted as follows:

<table>
<thead>
<tr>
<th>LEVEL OF ATTITUDE</th>
<th>GRADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor attitude</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Moderate attitude</td>
<td>50-65%</td>
</tr>
<tr>
<td>Favourable attitude</td>
<td>&gt;65%</td>
</tr>
</tbody>
</table>
VALIDITY OF THE TOOL

The tool was validated by an expert in Neurosurgery and by three Medical Surgical Nursing experts. Few corrections were given by experts and the tool was modified accordingly.

RELIABILITY OF THE TOOL

The reliability of the tools was checked by using inter-rater method and the reliability value for role burden scale was 0.83 and attitude scale was 0.87. This showed that the tools were highly reliable and feasible for conducting the main study.

HUMAN RIGHTS AND ETHICAL CONSIDERATIONS

The study was approved by the ethical committee constituted by the college. Permission was obtained from the Head of the institutions to conduct the study. Informed consent was obtained from the caregiver who participated in the study.

PILOT STUDY

The pilot study was conducted at Voluntary Health Services Hospital, Chennai from 14.5.2015 to 16.5.2015 after obtaining permission from the Director Clinical and Academic affairs. Totally 6 caregivers who fulfilled the inclusion criteria were selected. After establishing rapport with samples, self-introduction was given. The purpose of the study was explained and the consent for the participation in the study was obtained from the samples. Interview was conducted by using interview schedule, to assess the role burden and attitude of caregivers towards post stroke rehabilitation. It took approximately 40 minutes for the investigator to complete the interview with one sample. The results revealed that the tool was feasible and easy to administer.
PILOT STUDY RECOMMENDATIONS

The tool was feasible and main study was carried out without any modification after pilot study.

DATA COLLECTION PROCEDURE

The data for the main study was collected from 9.06.2015 to 28.06.2015, at inpatient rehabilitation wards of New Hope Brain & spinal centre and Priyadarshini clinic, Chennai. After obtaining permission from the respective heads of the institutions, a total of 60 samples, 30 from each setting who fulfilled the inclusion criteria were selected by the Non probability purposive sampling technique. After establishing the rapport with the samples, self-introduction was given. The purpose of the study was explained and the consent for the participation in the study was obtained. Interview schedule was used to collect demographic data, role burden and attitude of caregivers towards post stroke rehabilitation in selected settings. It took approximately 40 minutes for the investigator to collect data from one sample.

PLAN FOR DATA ANALYSIS

Descriptive and inferential statistics were used for data analysis.

DESCRIPTIVE ANALYSIS

- Frequency and percentage distribution was used to analyze the demographic data of the caregivers.
- Frequency and percentage was used to assess the role burden and attitude of caregivers towards post stroke rehabilitation.
INFERENTIAL STATISTICS

- Chi square test was used to associate the level of role burden and attitude of caregivers towards post stroke rehabilitation with selected demographic variables.
- Correlation coefficient was used to correlate the level of role burden and attitude of caregivers towards post stroke rehabilitation.
CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis of data collected from the selected 60 samples. The aim of the study to assess the role burden and attitude of caregivers towards post stroke rehabilitation at selected hospitals, Chennai. Descriptive and inferential statistics was used to analyze the data.

The data obtained was classified and presented under the following section.

Section I: Frequency and percentage distribution of demographic variables of caregivers towards post stroke rehabilitation.

Section II: Assessment of level of role burden and attitude of caregivers towards post stroke rehabilitation.

Section III: Relationship between role burden and attitude of caregivers towards post stroke rehabilitation.

Section IV: Association of level of role burden of caregivers towards post stroke rehabilitation with demographic variables.

Section V: Association of level of attitude of care givers towards post stroke rehabilitation with demographic variables.
## SECTION –I

FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF CAREGIVERS TOWARDS POSTSTROKE REHABILITATION

Table 1:1 Frequency and percentage distribution of the demographic variables of samples based on age, gender, relationship with patient, religion and type of family. N=60

<table>
<thead>
<tr>
<th>S.No</th>
<th>Demographic variables</th>
<th>F</th>
<th>P %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30-35years</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>36-40years</td>
<td>16</td>
<td>26.6</td>
</tr>
<tr>
<td></td>
<td>41-45years</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>45and above</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td>2.</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>11</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>49</td>
<td>81.7</td>
</tr>
<tr>
<td>3.</td>
<td>Relationship with patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daughter</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>Son</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Wife</td>
<td>36</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Husband</td>
<td>11</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>Brother/ sister</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Daughter/ son-in law</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td>4</td>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hindu</td>
<td>40</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>Christian</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>5</td>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nuclear family</td>
<td>37</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td>Joint family</td>
<td>23</td>
<td>38.3</td>
</tr>
</tbody>
</table>

Table 1.1 shows that majority (40.0%) of caregivers were in the age group of >45 years, and 26.6% of caregivers were in age group of 36 -40 years. Majority (81.7%) of caregivers were female. Majority (60.0%) of caregivers were wife of stroke patient. Majority (66.7%) of caregivers belonged to Hindu religion and 61.7% caregivers belonged to nuclear family.
Table 1.2 Frequency and percentage distribution of demographic variables of caregivers based on educational status, occupation, family monthly income, marital status and area of residence

N=60

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Demographic variables</th>
<th>F</th>
<th>P  %</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td><strong>Educational status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non literate</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Primary school</td>
<td>17</td>
<td>28.4</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Post graduate</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>7</td>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daily wages</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Self employed</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Government job</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>Private job</td>
<td>21</td>
<td>35.0</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>8</td>
<td><strong>Family monthly income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rs 10,000-15,000</td>
<td>31</td>
<td>51.7</td>
</tr>
<tr>
<td></td>
<td>Rs 15,000-20,000</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td></td>
<td>Rs 20,000-25,000</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Rs 25,000 and above</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>55</td>
<td>91.7</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>10</td>
<td><strong>Area of residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>35</td>
<td>58.3</td>
</tr>
</tbody>
</table>

Table 1.2 Shows that majority (40.0%) of caregivers were non literate. In relation to occupation, majority (53.3%) of caregivers was unemployed and 35.0% caregiver had private job. Majority (51.7%) of caregivers family monthly income was Rs.10,000-15,000. Majority (91.7%) of caregivers were married. Majority (58.3%) of caregivers was from rural area and 41.7% caregivers were from urban area.
Table 1.3 Frequency and percentage distribution of demographic variables of caregivers based on duration of being a caregiver, previous knowledge about stroke rehabilitation, source of information, dependency level of stroke patient and amount of time spent on patient care every day.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Demographic variables</th>
<th>F</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td><strong>Duration of being a caregiver</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-10 weeks</td>
<td>35</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>10-16 weeks</td>
<td>21</td>
<td>35.0</td>
</tr>
<tr>
<td></td>
<td>16-22 weeks</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>22 weeks and above</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td><strong>Do you have previous knowledge about stroke rehabilitation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>37</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>13</td>
<td><strong>If yes, what is the source of information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Media</td>
<td>3</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Newspaper</td>
<td>3</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Health professionals</td>
<td>6</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Relative or friends</td>
<td>25</td>
<td>67.6</td>
</tr>
<tr>
<td>14</td>
<td><strong>Overall what do you think about the dependency level of your stroke patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completely dependent</td>
<td>35</td>
<td>58.3</td>
</tr>
<tr>
<td></td>
<td>Partially dependent</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td>15</td>
<td><strong>Amount of time spent on patient care everyday</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;5 hours</td>
<td>48</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>&gt;5 hours</td>
<td>12</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Table 1.3 shows that majority (58.3%) of them were being caregivers for duration of 4-10 weeks and 35.0% of them were being a caregiver for 10-16 weeks. Majority (61.7%) of caregivers had previous knowledge about stroke rehabilitation. Majority (67.6%) of caregivers received information through relatives or friends. Majority (58.3%) of the caregiver’s patient was completely dependent on them. Majority (80%) of caregivers spent <5 hours on patient care every day.
Figure 1 Percentage distribution of caregivers based on age
Figure 2 Percentage distributions of caregivers based on gender
Figure 3 Percentage distributions of caregivers based on relationship with the Patient
Figure 4 Percentage distributions of caregivers based on type of family
SECTION II

ASSESSMENT OF LEVEL OF ROLE BURDEN AND ATTITUDE OF CAREGIVERS TOWARDS POST STROKE REHABILITATION

Table 2.1 Frequency and percentage distribution of level of role burden of caregivers towards post stroke rehabilitation.

<table>
<thead>
<tr>
<th>LEVEL OF ROLE BURDEN</th>
<th>N=60</th>
<th>Minimal</th>
<th>F</th>
<th>P%</th>
<th>Mild</th>
<th>F</th>
<th>P%</th>
<th>Moderate</th>
<th>F</th>
<th>P%</th>
<th>Severe</th>
<th>F</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical burden</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>25.0</td>
<td>44</td>
<td>73.33</td>
<td>1</td>
<td>1.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological burden</td>
<td>13</td>
<td>21.67</td>
<td>43</td>
<td>71.67</td>
<td>4</td>
<td>6.66</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial burden</td>
<td>24</td>
<td>40.0</td>
<td>29</td>
<td>48.33</td>
<td>7</td>
<td>11.67</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social burden</td>
<td>7</td>
<td>11.67</td>
<td>43</td>
<td>71.67</td>
<td>10</td>
<td>16.66</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.1 shows that with regard to level of physical burden, majority (73.33%) of caregivers had moderate burden. Regarding level of psychological burden, majority (71.67%) of caregivers had mild burden. In relation to level of financial burden, majority (48.33%) of caregivers had mild burden. In relation to level of social burden, majority (71.67%) of the caregivers had mild burden.
Table 2.2 Frequency and percentage distribution of the overall level of role burden of caregivers towards post stroke rehabilitation.

N=60

<table>
<thead>
<tr>
<th>LEVEL OF ROLE BURDEN OF CAREGIVERS</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mild</td>
<td>51</td>
<td>85</td>
</tr>
<tr>
<td>Moderate</td>
<td>9</td>
<td>15.0</td>
</tr>
<tr>
<td>Severe</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 2.2 shows that majority (85%) of caregivers had mild level of role burden and 15.0% of caregivers had moderate level of role burden. None of them had minimal or severe burden.
Figure 5: Percentage distribution of role burden of caregivers towards post stroke rehabilitation.
Table 2.3 Frequency and percentage distribution of level of attitude of caregivers towards post stroke rehabilitation.

N=60

<table>
<thead>
<tr>
<th>S.NO</th>
<th>LEVEL OF ATTITUDE OF CAREGIVERS</th>
<th>F</th>
<th>P (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>34</td>
<td>56.6</td>
</tr>
<tr>
<td>3</td>
<td>Favourable</td>
<td>13</td>
<td>21.7</td>
</tr>
</tbody>
</table>

Table 3.1 shows the level of attitude of caregivers, majority(56.6%) of them had moderate attitude and 21.7% of caregivers had favourable attitude and 21.7% of caregivers had poor attitude towards post stroke rehabilitation.
Level of attitude of caregivers

Figure: 6   Percentage distribution of attitude of caregivers towards post stroke rehabilitation
Table 2.4 Comparison of Mean and Standard Deviation scores of role burden and attitude of caregivers towards post stroke rehabilitation.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>VARIABLES</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Role burden</td>
<td>43.52</td>
<td>5.68</td>
</tr>
<tr>
<td>2.</td>
<td>Attitude</td>
<td>36.10</td>
<td>5.27</td>
</tr>
</tbody>
</table>

Table 2.4 shows that the role burden mean score is 43.52 with the standard deviation of 5.68. The mean attitude score is 36.10 with the standard deviation of 5.27. The caregivers had high mean role burden score of 43.52 with the standard deviation of 5.68, when compared with attitude (Mean-36.10; SD5.27).
SECTION III

RELATIONSHIP BETWEEN THE LEVEL OF ROLE BURDEN AND ATTITUDE OF CAREGIVERS TOWARDS POST STROKE REHABILITATION

Table 3.1 correlation between role burden and attitude of caregivers towards poststroke rehabilitation.

N=60

| Variable    | r Value | P value  
|-------------|---------|----------
| Role burden | r =-0.43 | P =0.001** |
| Attitude    |         |          |

**denotes high significance at 1% level (P <0.001)

Table 3.1 showsthat there is a negative correlation between role burden and attitude of caregivers towards post stroke rehabilitation at 1% level of significance. This clearly indicates that whenattitude of caregiversincreases their role burden decreases,Or when their role burden increases their attitude decreases.
SECTION IV

ASSOCIATION OF LEVEL OF ROLE BURDEN OF SAMPLES TOWARDS POST STROKE REHABILITATION WITH DEMOGRAPHIC VARIABLES

Table 4.1 Association of level of role burden of caregivers towards the post stroke rehabilitation with their demographic variables

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Level of Role burden</th>
<th>Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>P%</td>
</tr>
<tr>
<td>Area of residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td>Rural</td>
<td>27</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>$\chi^2$=4.067, d.f=1, p=0.044</td>
<td>S*</td>
</tr>
<tr>
<td>Duration of being a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>caregiver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-10 weeks</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>10-16 weeks</td>
<td>19</td>
<td>31.7</td>
</tr>
<tr>
<td>16-22 weeks</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22 weeks and above</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>$\chi^2$=7.442, d.f=2, p=0.024</td>
<td>S*</td>
</tr>
<tr>
<td>Amount of time spent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on patient care every</td>
<td></td>
<td></td>
</tr>
<tr>
<td>day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5 hours</td>
<td>44</td>
<td>73.3</td>
</tr>
<tr>
<td>&gt;5 hours</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>$\chi^2$=12.633, d.f=1, p=0.001</td>
<td>S***</td>
</tr>
</tbody>
</table>

S-Significant (*denotes significance at 5% level)(***denotes high significance at 1% level)

Table 4.1 Shows that there was a statistically significant association found between the level of role burden of caregivers towards post stroke rehabilitation with demographic variables such as area of residence, duration of being a caregiver, at 5% level of significance, and amount of time spent on patient care every day at 1% level of significance. There was no significant association found between the level of role burden and other demographic variables such as, age, gender, relationship with patient, religion, type of family, educational status, occupation, family monthly income, marital status, previous knowledge about post stroke rehabilitation, source of information, and dependency level of stroke patient.
## SECTION V

ASSOCIATION OF LEVEL OF ATTITUDE OF CAREGIVERS TOWARDS POST STROKE REHABILITATION WITH DEMOGRAPHIC VARIABLES

Table 5.1 Association of level of attitude of caregivers towards post stroke rehabilitation with their demographic variables

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Level of attitude</th>
<th>Chi square Test</th>
<th>N=60</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poor F P%</td>
<td>Moderate F P%</td>
<td>Favourable F</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6 10.0</td>
<td>4 6.67</td>
<td>1 1.67</td>
</tr>
<tr>
<td>Female</td>
<td>7 11.6</td>
<td>30 50.0</td>
<td>12 20.0</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear family</td>
<td>11 18.3</td>
<td>21 35.0</td>
<td>5 8.33</td>
</tr>
<tr>
<td>Joint family</td>
<td>2 3.33</td>
<td>13 21.6</td>
<td>8 13.3</td>
</tr>
<tr>
<td>Over all what do you think about the dependency level of your stroke patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completely dependent</td>
<td>10 16.7</td>
<td>21 48.3</td>
<td>4 6.67</td>
</tr>
<tr>
<td>Partially dependent</td>
<td>3 5.0</td>
<td>13 8.33</td>
<td>9 15.0</td>
</tr>
<tr>
<td>Amount of time spent on patient care everyday</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5 hours</td>
<td>12 20.0</td>
<td>29 48.3</td>
<td>7 11.6</td>
</tr>
<tr>
<td>&gt;5 hours</td>
<td>1 1.67</td>
<td>5 8.33</td>
<td>6 10.0</td>
</tr>
</tbody>
</table>

S-Significant (*denotes significance at 5%level) (**denotes high significance at 1%level)

Table 5.1 showsthat there was a statistically significant association found between the level of attitude of caregivers towards post stroke rehabilitation with demographic variables such as type of family, dependency level of stroke patient and amount of time spent on patient care everyday at 5% and gender at 1% level of significance. There is no association between the level of attitude with other demographic variables such as age, relationship with patient, religion, type of family, educational status, occupation, family monthly income, marital status, area of residence, duration of being a caregiver, previous knowledge about stroke rehabilitation, and source of information.
CHAPTER V
DISCUSSION

The present study was intended to assess the role burden and attitude of caregivers towards post stroke rehabilitation at selected hospitals in Chennai. A total of sixty caregivers were selected by Non probability purposive sampling method, the data was analyzed using descriptive and inferential statistics. The findings of the present study were discussed based on the objectives.

DESCRIPTION OF SAMPLE CHARACTERISTIC:

Analysis of the demographic variables revealed that:

- Majority (40%) of caregivers were in the age group of >45 years.
- Majority (81.7%) of caregivers were female.
- Sixty percentage of caregivers were wives of stroke patient.
- Majority (66.7%) of caregivers belonged to Hindu religion.
- Majority (61.7%) of caregivers were in nuclear family.
- Forty percentages of caregivers were Non literate.
- Regarding occupation, (53.3%) caregivers were unemployed, and 35% of them were doing private job.
- Majority (51.7%) of caregivers monthly income was Rs 10,000-15,000.
- Majority (91.7%) of caregivers were married.
- Majority (58.3%) of caregivers were from rural area, and 41.7% of the caregivers were from urban area.
- Majority (58.3%) were caregivers for a duration of 4-10 weeks.
• Majority (61.7%) of caregivers had previous knowledge about stroke rehabilitation.

• Majority (67.6%) of caregivers received information through relatives or friends.

• Majority (58.3%) of caregivers' patient's were completely dependent.

• Eighty percentage of caregivers spent <5 hours with their patient's

The result of the study as per objectives is:

The first objective was to assess the role burden of caregivers towards post stroke rehabilitation at selected hospitals.

The level of caregivers' role burden was assessed on various aspects such as physical psychological, financial, and social burden.

Table 2.1 showed that majority (73.3%) of the samples had moderate physical burden whereas 25% caregivers had mild burden and 1.67% caregivers had severe burden. Regarding psychological burden, majority (71.67%) of the caregivers had mild burden and 21.67% of them had minimal burden. In relation to financial burden, majority (48.33%) caregivers had mild burden and 40% of them had minimal burden. In relation to social burden, majority (71.67%) of the caregivers had mild social burden and 16.66% had moderate burden.

Overall level of role burden of caregivers shows, that majority (85%) of them had mild level of role burden and 15% of caregivers had moderate level of role burden. None of them had minimal or severe burden.
The above findings were supported by the study conducted by Rajesh Kumar, K. et al. (2015) to explore role burden among caregivers of stroke survivors at selected community setting and outpatient department of different tertiary care hospitals at Punjab. The results revealed that level of role burden reported by the caregivers was high.

From the above findings, we can infer that majority of the caregivers had role burden. Hence, the investigator’s first assumption that the caregivers of patient with stroke will experience some level of role burden as a result of providing continuous care was supported by the above finding.

The second objective was to assess the attitude of caregivers towards post stroke rehabilitation at selected hospitals.

The table 2.3 showed the level of attitude of caregivers. Majority (56.6%) of them had moderate attitude and 21.7% of caregivers had favourable attitude and 21.7% of caregivers had poor attitude towards post stroke rehabilitation.

The third objective was to determine the relationship between caregivers role burden and attitude towards post stroke rehabilitation in selected hospitals.

Table 3.1 showed that there is a negative correlation between role burden and attitude of caregivers. \( r = -0.43 \) towards post stroke rehabilitation at 1% level significance. This clearly indicates that when the attitude of caregivers increases their role burden decreases.
The above findings were supported by the study conducted by Tomoko, A. et al. (2013) to correlate caregivers burden and health related quality of life among Japanese stroke caregivers. The results revealed that when the burden of caregivers increases their health related quality of life particularly mental health decreases.

Hence, the investigator’s third assumption that the level of burden of caregivers influences their attitude was supported by the above findings.

**The fourth objective was to find the association between the level of caregivers role burden and attitude towards post stroke rehabilitation with demographic variables.**

Table 4.1 showed that there was a statistically significant association found between the level of role burden of caregivers towards post stroke rehabilitation and demographic variables such as area of residence, duration of being a caregiver at 5% level of significance, amount of time spent on patient care every day with patient at 1% of significance.

The above findings were supported by the study conducted by Bos, D. N. et al. (2011) to assess the burden of informal care giving for stroke patients. The results revealed that the level of subjective burden and the condition of feeling substantially burdened were associated the number of care giving tasks performed.

Hence, the investigator’s second assumption that the level of burden increases overtime was supported by the above findings.

There was no association found between role burden and demographic variables such as age, gender, relationship with patient, type of family, education status, religion,
occupation, family monthly income, marital status, previous knowledge about stroke rehabilitation, source of information, and dependency level of stroke patient.

Table 5.1 showed that there was a statistically significant association between level of attitude of caregivers towards post stroke rehabilitation with demographic variables such as type of family, dependency level of stroke patient, amount of time spent on patient care every day at 5% and gender at 1% level of significance.

The above findings were supported by the study conducted by Damen, S. et.al. (2011) on informal caregivers attitudes towards respite care at Netherlands. It was found that caregivers attitude was apparently associated with caregiver, duration and intensity of care giving.
CHAPTER VI
SUMMARY, CONCLUSION, IMPLICATIONS
RECOMMENDATION AND LIMITATION

SUMMARY

The objective of the study was to assess the role burden and attitude of caregivers towards the post stroke rehabilitation in selected hospitals, Chennai.

A descriptive method was used to assess role burden and attitude of caregivers towards post stroke rehabilitation. The review of literature provided the base and in depth knowledge for the development of tool. The content validity of the tool on assessment of role burden and attitude of caregivers was obtained from experts and the pilot study was conducted.

The study was conducted at selected hospitals in Chennai namely VHS Multispecialty Hospital, Chennai. New Hope Brain &Spinal Centre Hospital, Poonamallee High Road Kilpauk, Chennai and Priyadarshini Clinic, West Cross Road, M.K.B. Nagar, Chennai. Prior permission from the head of the institutions, was obtained the study was conducted role burden and attitude of caregivers towards post stroke rehabilitation. The samples who fulfilled the inclusion criteria were selected from the selected hospitals. Non-probability purposive sampling was used to select the samples. Interview schedule was used to collect the data from the caregivers. The data was analyzed using descriptive statistics and inferential statistics.
The major findings of the study were as following:

**Analysis of the demographic variables revealed that:**

- Majority (40%) of caregivers were in the age group of >45 years.
- Majority (81.7%) of caregivers were female.
- Sixty percentage of caregivers were wives of stroke patient.
- Majority (66.7%) of caregivers belonged to Hindu religion.
- Majority (61.7%) of caregivers were in nuclear family.
- Forty percentages of caregivers were Non literate.
- Regarding occupation, 53.3% caregivers were unemployed, and 35% of them were doing private job.
- Majority (51.7%) of caregivers monthly income was Rs 10,000-15,000.
- Majority (91.7%) of caregivers were married.
- Majorities (58.3%) of caregivers were from rural area, and 41.7% of the caregivers were from urban area.
- Majority( 58.3% ) were caregivers for a duration of 4-10 weeks
- Majority(61.7%) of caregivers had previous knowledge about stroke rehabilitation
- Majority (67.6%)of caregivers received information through relatives or friends
- Majority (58.3%) of caregivers’patient’s were completely dependent.
- Eighty percentage of caregivers spent <5 hours with their patient’s.
- The assessment of the overall level of role burden towards post stroke rehabilitation shows that majority 85% of the samples had mild burden and 15% of caregivers had moderate burden.
• There is a statistically significant negative correlation (r = -0.43; p < 0.001) between role burden and attitude towards post stroke rehabilitation.

• Overall level of attitude was 56.6% of samples moderate and 21.7% favorable and poor attitude.

• There was a significant association between the level of role burden and demographic variables such as area of residence, duration of being a caregiver, at 5% and amount of time spent on patient care every day at 1% level of significances.

• There was a significant association between the level attitude and demographic variables such as gender at 1% and type of family dependency level of stroke patient and amount of time spent on patient care every day at 5% level of significances.

**CONCLUSION**

The overall findings of the present study showed that majority (81.7%) of the caregivers were females, 58.3% of caregivers patients were completely dependent. 73.3% of caregivers had moderate level of physical burden. It is also observed that 85% of the caregivers had mild level of role burden and 56.6% of caregivers had moderate level of role burden towards post stroke rehabilitation. It is also observed that majority (56.6%) of them had moderate attitude and (21.7%) of caregivers had favourable and poor attitude towards post stroke rehabilitation. There was a statistically significant negative correlation between role burden and attitude at 1% level of significance.
The study findings gave an insight to the investigator about the role burden experienced by the caregivers and their attitude towards post stroke rehabilitation. It will further help the investigator to make recommendation to reduce the role burden of caregivers and improve their attitude.

**IMPLICATIONS**

The study findings have its implication in several branches of nursing namely nursing education, nursing practice, nursing administration and nursing research.

**NURSING PRACTICE**

- Majority of the samples had mild role burden and poor attitude which may be due to lack of awareness regarding post stroke rehabilitation. Therefore, nurses must reinforce the family members regarding the importance of post stroke rehabilitation.
- Validated forms for assessing the role burden can be incorporated into nursing care to know the level of role burden and attitude of caregivers.
- Nurses can organize guidance and counseling programme for caregivers towards post stroke rehabilitation.

**NURSING EDUCATION**

- Nurse educator can educate students on assessment of role burden and attitude of caregivers of patients with stroke.
- Nurse educator must teach the nursing students regarding the importance of role of caregivers towards post stroke rehabilitation.
Nurse educator must motivate the students to organize mass awareness programmes regarding the importance of rehabilitation programmes after stroke.

**NURSING ADMINISTRATION**

- Nurse administrator can plan and organize continuing nursing education programme to educate staff nurses regarding measures to minimize the burden of care givers of patients with stroke.
- Nurse administrator can encourage the nurses to conduct research studies on various aspects of role burden and attitude of caregivers towards post stroke rehabilitation.
- Nurses can create awareness among caregivers regarding post stroke rehabilitation in early prognosis of patient with stroke.
- Nurse administrator can involve in preparation and distribution of information booklets to create awareness to stroke patients and care givers about the importance of post stroke rehabilitation.

**NURSING RESEARCH**

- Extensive nursing research can be conducted regarding role burden and attitude of caregivers towards post stroke rehabilitation in selected settings.
- The findings of the study should be disseminated through conferences, seminars and journal publications.
- Nurse researcher can explore various innovative methods to reduce role burden and improve the attitude of caregivers towards post stroke rehabilitation.
RECOMMENDATIONS

- The study can be conducted on large sample to generalize the findings.
- A study can be conducted on the difficulties faced by the nurses in motivating the caregivers to adopt the rehabilitation programmes.
- Focus group discussion can be conducted on problems experienced by patients with stroke and their caregivers during post stroke rehabilitation period.
- A comparative study can be done on difficulties experienced by the caregivers in taking care of patients with complete or partial level of dependency after stroke.
- A study can be done on family support and quality of life of patients with stroke.
- A study can be conducted to compare the knowledge and attitude of male and female, urban and rural caregivers regarding post stroke rehabilitation.
- A study can be conducted to assess the effectiveness of structured teaching programmes on knowledge and attitude of caregivers towards post stroke rehabilitation.
- An observational study can be done to assess the knowledge, attitude and practice of caregivers towards post stroke rehabilitation.

LIMITATIONS

The investigator faced no difficulties
REFERENCES


11. Haley, W.E. et al., (2013). Problems and benefits reported by stroke family caregivers results from prospective epidemiology study, final version stroke, 40 (6) 2129-33


27. Tomoko, A. et al. (2013). *Caregivers burden and health related quality of life*: Elservier, 88(9) 1214
APPENDICES
LETTER SEEKING PERMISSION FOR CONDUCTING THE STUDY

From
Ms. Nalini G
1 Year M.Sc. Nursing,
M.A. Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

To
The Medical Director –
Clinical and Academic affairs,
VHS Hospital, Adyar,
TTTI Post,
Chennai-113.

Through
The Principal,
M.A. Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

Respected Madam / Sir,

I am Ms. Nalini G, 1 Year M.Sc. Nursing student of M.A. Chidambaram College of Nursing, Voluntary Health Services, Adyar, Chennai- 600113.

As a part of the requirement in M.Sc. Nursing Programme as per The Tamilnadu Dr MGR Medical University specification, I have to complete my dissertation. The topic I have selected is “A study to assess the role burden and attitude of care givers towards post stroke rehabilitation in selected Hospitals, Chennai.”

I am interested in conducting the study at your esteemed Institution. The period of data collection for the pilot study is from 11.05.2015 to 16.05.2015. The period of data collection for the main study is from 01.06.2014 to 30.06.2014.

I assure you Sir/Madam that my study will not interfere with the routine functioning of the institution. Kindly grant me permission to conduct the study in your Emergency Obstetrical Care Centres.

Thanking you Sir/ Madam in anticipation of a favourable response.

Date: 25.4.14
Place: Tharamani, Chennai - 600113.

Yours sincerely,
(Nalini G)
LETTER SEEKING PERMISSION FOR CONDUCTING THE STUDY

From
Mis . G Nalini,
1 Year M.Sc. Nursing,
M.A.Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

To
Dr. A Simon Hercules ,MS,MCh (Neuro), FRCS(Edin),MBA
Director
New Hope Brain & Spine Center,
814, Poonamallee High Road ,
Kilpauk ,Chennai-600110,

Through
The Principal,
M.A.Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

Respected Madam/Sir,

I am Mrs G Nalini, 1 Year M.Sc. Nursing student of M.A.Chidambaram College of Nursing, Voluntary Health Services, Adyar, Chennai- 600113.

As a part of the requirement in M.Sc. Nursing Programme as per The Tamilnadu Dr MGR Medical University specification, I have to complete my dissertation. The topic I have selected is “A study to assess the role burden and attitude of caregivers towards the post stroke rehabilitation in selected Hospitals, Chennai,”

I am interested in conducting the study at your esteemed Institution. The period of data collection for the main study is from 01.06.2015 to 30.06.2015

I assure you Sir/Madam that my study will not interfere with the routine functioning of the institution. Kindly grant me permission to conduct the study in your Emergency Obstetrical Care Centres.

Thanking you Sir/ Madam in anticipation of a favourable response.

Yours sincerely,

(G NALINI)
LETTER SEEKING PERMISSION FOR CONDUCTING THE STUDY

From
Mrs.G.Nalini,
I Year M.Sc. Nursing,
M.A.Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

To
Dr.V.Saravanan, MD , MHRM, MHR, MDHM, M.Ch., Neuro Surgeon,
Neuro Rehabilitation Specialist, Neuro Psychologist,
Priyadarshini Clinic,
63,15 West Cross Road,
M.K.B.Nager, Chennai.600113.

Through
The Principal,
M.A.Chidambaram College of Nursing,
Voluntary Health Services,
Adyar, Chennai. 600113.

Respected Madam/Sir,

I am Ms Nalini G, I Year M.Sc. Nursing student of M.A.Chidambaram College of Nursing, Voluntary Health Services, Adyar, Chennai- 600113.

As a part of the requirement in M.Sc. Nursing Programme as per The Tamilnadu Dr MGR Medical University specification, I have to complete my dissertation. The topic I have selected is “A study to assess the role burden and attitude of care givers towards post stroke rehabilitation in selected Hospitals, Chennai.”

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Thanking you Sir/ Madam in anticipation of a favourable response.

Yours sincerely,

G. Nalini
(G.NALINI)

Date: 18/5/15
Place:

SIGNATURE WITH SEAL:

Dr. V. SARAVANAN
M.Sc.(Psych), MD, M.G.Psych, MD, MHRM, MHRM, M.O. (Neuro) Ph.D., HPC
CONSULTANT PSYCHOLOGIST, NEURO PSYCHOLOGIST AND NEURO REHABILITATION SPECIALIST
M.A. CHIDAMBARAN COLLEGE OF NURSING
V.H.S. TT.TI Post, Chennai - 600 113.
CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool developed by Ms. G Nalini, M.Sc.Nursing Student of M.A.Chidambaram College of Nursing for the study, “A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai.” is validated by the undersigned and she can proceed with this tool to conduct the main study.

DATE: 13/3/2015

SIGNATURE WITH SEAL:

PRINCIPAL
FACULTY OF NURSING
Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
UNIVERSITY
(SELECTED ON 3RD DECEMBER 1920)
CHENNAI-95.
CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool developed by Ms. G Nalini, M.Sc. Nursing, Student of M.A. Chidambaram College of Nursing for the study, "A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai," is validated by the undersigned and she can proceed with this tool to conduct the main study.

DATE: 

SIGNATURE WITH SEAL:

VICE-PRINCIPAL
VEL R.S. MEDICAL COLLEGE
(COLLEGE OF NURSING)
42, AVADI-ALAMATHI ROAD,
VELANUR, CHENNAI-62.
CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool developed by Ms. G Nalini, M.Sc.Nursing Student of M.A.Chidambaram College of Nursing for the study, "A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai." is validated by the undersigned and she can proceed with this tool to conduct the main study.

DATE: 14.02.2015

SIGNATURE WITH SEAL:
CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool developed by Ms. G Nalini, M.Sc.Nursing Student of M.A.Chidambaram College of Nursing for the study, "A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai." is validated by the undersigned and she can proceed with this tool to conduct the main study.

DATE: 10/03/2015

SIGNATURE WITH SEAL:

Dr. V Saravanan
M.Sc.(Psc), MBBS, MS (Psc), MD, MSW, MDS, M.O. (Nurs), Ph.D., FRCPE
FRCAN, FCAM, FRSA, FPHS, MACN, CHE, LLM (Cambridge, UK), DCM, MNP, MRCPS
RES. NO. 07189
CONSULTANT PSYCHOLOGIST,
Nursing Services and Human Resource Specialist
CERTIFICATE OF ENGLISH EDITING

This is to certify that Mrs. Nalini G, II year M.Sc.(Nursing) student of M.A. Chidambaram College of Nursing, Adyar, Chennai, conducted a dissertation work on “A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai” has been edited by me for English language appropriateness.
CERTIFICATE OF TAMIL EDITING

This is to certify that Mrs. Nalini G, II year M.Sc.(Nursing) student of M.A. Chidambaram College of Nursing, Adyar, Chennai, conducted a dissertation work on “A study to assess the role burden and attitude of caregivers towards post stroke rehabilitation in selected hospitals, Chennai” has been edited by me for Tamil language appropriateness.

Signature:

Dr. A. NALINI SUNDARI
Assistant Professor
Department of Tamil
Bishop Heber College
Puthur, TRICHY - 620 017.
INFORMED CONSENT FORM

I have been informed about the purpose of the study being conducted by Mrs. Nalini.G of M.A Chidambaram College of Nursing, Adyar, Chennai and I have no objection in participating in the study. I also give my full consent for the use of this data for the purpose of any presentation or publication.

Signature : 
Name : 
Date : 
Place : 
TOOL TO ASSESS THE LEVEL OF CAREGIVERS ROLE BURDEN AND ATTITUDE TOWARDS POST STROKE REHABILITATION

PART -I

DEMOGRAPHIC DATA OF CAREGIVER

1) Age of the care giver
   a) 30-< 35 years
   b) 35-<40 years
   c) 40-< 45 years
   d) 45 and above

2) Gender
   a) Male
   b) Female

3) Relationship with patient
   a) Daughter
   b) Son
   c) Wife
   d) Husband
   e) Brother/Sister
   f) Daughter/ son –in-laws

4) Religion
   a) Hindu
   b) Christian
   c) Muslim
   d) Others
5) Types of family
   a) Nuclear
   b) Joint

6) Educational status
   a) Non literate
   b) Graduate
   c) Post graduate
   d) Primary School
   e) Secondary School

7) Occupation
   a) Daily wages
   b) Self employed
   c) Government Job
   d) Private Job
   e) Unemployed

8) Family monthly income
   a) Rs 10,000-<15,000
   b) Rs 15,000-<20,000
   c) Rs 20,000-<25,000
   d) Rs 25,000 and above

9) Marital status
   a) Married
   b) Unmarried
10) Area of residence  
   a) Urban  
   b) Rural  

11) Duration of being a care giver  
   a) 4 -<10 weeks  
   b) 10-<16 weeks  
   c) 16-<22 weeks  
   d) 22 weeks and above  

12) Do you have Previous Knowledge about stroke rehabilitation?  
   a) Yes  
   b) No  

13) If yes, what is the source of information?  
   a) Media  
   b) Newspaper  
   c) Health professionals  
   d) Internet  
   e) Relative or friends  

14) Overall what do you think about the “Dependency” level of your stroke patient?  
   a) Completely dependent  
   b) Partially dependent  

15) Amount of time spent on patient care every day.  
   a) <5 hours  
   b) >5 hours
PART – II

SECTION A: ASSESSMENT OF LEVEL OF CARE GIVER’S ROLE BURDEN
MODIFIED AND ADAPTED FROM CAREGIVER BURDEN INVENTORY,
UNIVERSITY OF UTAH GERONTOLOGY INTERDISCIPLINARY PROGRAM
(1996)

PHYSICAL BURDEN

1. He/she need my help to perform many daily tasks.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always

2. I have to watch him/her constantly.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always

3. I am facing purely practical problem in the care of my stroke patient that are difficult to solve.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
Always

4. I am over taxed by my responsibilities.

Never

Rarely

Sometimes

Often

Always

5. I am physically tired.

Never

Rarely

Sometimes

Often

Always

6. My health has suffered.

Never

Rarely

Sometimes

Often

Always

7. I find it difficult to get enough sleep.

Never

Rarely

Sometimes

Often

Always
8. I find it hard to have a break.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

**PSYCHOLOGICAL BURDEN**

1. I fear what may happen to my stroke patient in the future.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

2. I feel emotionally drained due to caring for him/her.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

3. I wish I could escape from this situation.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always
4. I feel resentful of other relative who could but do not help.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always

5. I feel that I am missing out on life.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always

6. I feel I will not able to continue to care for my stroke patient.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always

7. I wish someone else would take over my care giving responsibilities.
   □ Never
   □ Rarely
   □ Sometimes
   □ Often
   □ Always
8. I feel embarrassed over his |her behaviour.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

9. I feel angry about my interaction with him |her.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

10. I resent him |her.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

**FINANCIAL BURDEN**

1. I experience difficulties in meeting the family economic needs.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always
2. I feel that do not have enough money for caring him/her.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

3. I experience interference in continuity of job because of my patient illness.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

**SOCIAL BURDEN**

1. My social life has suffered

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

2. It is difficult for me to get along with my family members as well, as I used to be previously.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always
3. It is difficult to get support from my family members.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

4. I find it difficult to get along with my friends as well, as I used to be previously.

☐ Never
☐ Rarely
☐ Sometimes
☐ Often
☐ Always

**SCORE INTERPRETATION**

1.0-< 25-No or Minimal burden
2.25-<50-Mild burden
3.50-<80-Moderate burden
4.80-<100-Severe burden
SECTION: TOOL TO ASSESS THE ATTITUDE OF CAREGIVERS TOWARDS POST STROKEREHABILITATION

<table>
<thead>
<tr>
<th>S.NO</th>
<th>STATEMENT</th>
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<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Post stroke rehabilitation is the fundamental to improve patients outcome after stroke</td>
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<td>2.</td>
<td>Care giver plays only a minimal role in the post stroke rehabilitation</td>
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<td>3.</td>
<td>Stroke recovery varies from person to person and is impossible to predict</td>
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<td>4.</td>
<td>Post stroke rehabilitation is an ongoing, long term and confusing process</td>
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<td>5.</td>
<td>Meeting physical need of the stroke survivor is a vital responsibility of the care giver</td>
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<td>6.</td>
<td>Co-ordinating with health care team members is not a responsibility of the care giver</td>
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<td>7.</td>
<td>Stroke survivor need lot of emotional support during the process of post stroke rehabilitation</td>
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<td>8.</td>
<td>Teaching rehabilitation skills is solely a job of the physiotherapist.</td>
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<td>9.</td>
<td>Care giver must monitor for the safety of the patient</td>
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<td>10.</td>
<td>Care giver gets only minimal support from the other family members during the phase of rehabilitation</td>
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<td>11.</td>
<td>Helping the patient to learn rehabilitation skill is also the responsibility of the care giver.</td>
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<td>12.</td>
<td>Helplessness and worry are the common emotions of the care givers during post stroke rehabilitation.</td>
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</table>

SCORE INTERPRETATION

- 65% Favorable attitude
- 50-65% Moderate attitude
- <50% Poor attitude
அடுத்தும் என்று இந்தும் விளக்கும் கண்டுபிடித்தது தமது வாழ்க்கை நேரத்தில் பிரித்து விட்டது. இது விளக்கும் விளக்கும் யுந்துகளை குறிப்பிடுகிறது. அறிவு பயிற்சிக்கு வேண்டும் விளக்கும் யுந்துகளை குறிப்பிடுகிறது. இவ்வாறு விளக்கும் விளக்கும் யுந்துகளை குறிப்பிடுகிறது:

ஆரமையை:

முறை:

துறை:

ஜூலை:
பதிப்பு - அ: துளை வகை விளக்கங்கள்

1. அம்பதிளை
   அ) 30 முதல் 35 அம்பதிளைகளால்
   மு) 35 முதல் 40 அம்பதிளைகளால்
   இ) 40 முதல் 45 அம்பதிளைகளால்
   ஈ) 45 முதல் 50 அம்பதிளைகளால்

2. பாலிலம
   அ) பாலிலம்
   மு) பாலிலம்

3. குதியார் (பாலிலம்)
   அ) குதியார்
   மு) குதியார்
   இ) குதியார்
   இ) குதியார்

4. பாலிலம்
   அ) பாலிலம்
   மு) பாலிலம்

5. மாறுபாட்டு குறிப்பிட்டிகள்
5. குறிப்பிட்டு வகை
   அ) வளிமாற்றம்
   ஆ) சுருக்கம் குறிப்பிட்டு
6. குறிப்பிட்டு வகை
   அ) பதில்பாக்கக் குறிப்பிட்டு
   ஆ) அமைப்பாக்க
   இ) சமானிகல் குறிப்பிட்டு
   ஈ) பட்டமுறுப்பு

7. வருமான வகை
   அ) கலைக்குழு
   ஆ) சிறப்பு வருமான வாய்ப்பு
   இ) அரசியல் வருமான
   ஈ) கல்லால் வருமான
   க) சிலைநீர் கல்லால்
   ஐ) கொள்ளளைப்ப்படங்கள

8. நோய் வகுப்பு
   அ) மத. 10,000 முதல் 15,000 வரை
   ஆ) மத. 15,000 முதல் 20,000 வரை
   இ) மத. 20,000 முதல் 25,000 வரை
   ஈ) மத. 25,000 முதல் 30,000 வரை

9. முயற்சியாக்க உயர்வு
   அ) முயற்சியாக்க
   ஆ) முயற்சியாக்க பாகை
   இ) முயற்சியாக்க தக்காண

10. மதிக்க வருமான
    அ) கைப்பாலன
    ஆ) கையாலன
11) நேகரப்பிள்ளை புறாவிக்குச் செல்லும்
   ம) 4 முறை 10 ஆண்டுகள்
   மு) 10 முறை 16 ஆண்டுகள்
   மு) 16 முறை 22 ஆண்டுகள்
   ப) 22 முறை நாளை
12) நேகரப்பிள்ளை புறாவிக்குச் செல்லும் கும்பகோணம் துவக்கத்துக்கு குறிப்பிட்டு நேகரப்பிள்ளை நாளிலிருப்பது?
   ம) அல்ல
   ம) இல்லை
13) எண்ணிப்பு கலையால் எண் எடுப்பு எண்ணிப்பு கலையால்வார்
   ம) எண்ணிப்பு
   ம) எண்ணிப்பு
14) எண்ணிப்பு எண்ணிப்பு எண்ணிப்பு எண்ணிப்பு எண்ணிப்பு எண்ணிப்பு
   ம) எண்ணிப்பு எண்ணிப்பு
   ம) எண்ணிப்பு எண்ணிப்பு
15. கலையை எண்ணிப்பு புறாவிக்குச் செல்லும் கும்பகோணம் எண்ணிப்பு எண்ணிப்பு எண்ணிப்பு முயாமாச்சுக்கு விளையாட்டு
   ம) ராமசு ராமசு ராமசு ராமசு
   ம) ராமசு ராமசு ராமசு ராமசு
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<th>பதிப்பு வினையாகியவுல் (1)</th>
<th>சைலை (2)</th>
<th>பெப்பர்ப்பாளர் வழக்கம்</th>
<th>பெப்பர்ப்பாளர் வழக்கம் (5)</th>
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<td>பெப்பர்ப்பாளர் வழக்கம்</td>
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<td>3</td>
<td>அவர்கள் கொண்டுள்ளது</td>
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<td>4</td>
<td>அவர்கள் நிலையானது</td>
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<td>5</td>
<td>தம்மையால் எனினுள்ளது</td>
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<td>6</td>
<td>கொண்டுள்ளது</td>
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<td>7</td>
<td>அவர்கள் நிலையானது</td>
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<td>8</td>
<td>அவர்கள் கொண்டுள்ளது</td>
<td>பெப்பர்ப்பாளர் வழக்கம்</td>
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2) குறிப்பிட்ச் சொல்லு

9) கொண்டுள்ளது | பெப்பர்ப்பாளர் வழக்கம் | குறிப்பிட்ச் சொல்லு | பெப்பர்ப்பாளர் வழக்கம் | | |

10) கொண்டுள்ளது | பெப்பர்ப்பாளர் வழக்கம் | குறிப்பிட்ச் சொல்லு | பெப்பர்ப்பாளர் வழக்கம் | | |

11) கொண்டுள்ளது | பெப்பர்ப்பாளர் வழக்கம் | குறிப்பிட்ச் சொல்லு | | |

12) கொண்டுள்ளது | பெப்பர்ப்பாளர் வழக்கம் | குறிப்பிட்ச் சொல்லு | | |
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<th>13) தெருச் செந்த மாண்சுக்கைக்குப் பிரியங்கத்து அடிக்களிடம்</th>
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<td>14) தெருச் சிந்தரபாலிக்கு பூதந்தரிய வருகையில்லை அண்ணி அடிக்களிடம்</td>
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<td>15) சார்க்க மூலம் விளையாடு விளையாட்டு திறந்த பொருள்பெயர் விளையாடு கொண்டுள்ளார்</td>
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<td>16) நல்ல சிந்தரபாலிக்கு நெச்றினுக்கால் சார்க்க புதுக்கால திறந்துவுருட்புள்ளார்</td>
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<td>17) நல்ல சிந்தரபாலிக்கு அடி அம்மாற்றுவியன சார்க்க என்பர் அடிக்களிடம்</td>
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<td>18) நல்ல சிந்தரபாலிக்கு தெருச் செந்த மாண்சுக்கைக்கு உணர்த்துவார்ந்துவருழைத்து</td>
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<td>3.</td>
<td>நூறுநாள் குழு</td>
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<td>19) நல்ல என்உம் சிற்றடுநிலாறு சிள்ளைக்குறுச்சியாள் மாட்டுவியல் சார்க்க குடும்பம் திறந்துவுருட்புள்ளார்</td>
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<td>20) சார்க்க சிந்தரபாலிக்கு கத்திப்பெயர் பொலித்தொல் அளவை பொருளை திறந்துவுருட்புள்ளார் அடிக்களிடம் அடிக்களிடம்</td>
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<td>21) நல்ல சிந்தரபாலிக்கு அடி குவர்த்த்புயிலான நல்ல அம்மாற்றுவியன பொருளை திறந்துவுருட்புள்ளார்</td>
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<td>4</td>
<td>நல்லாம் குழு</td>
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<td>22) நல்ல நுழைவு மாண்சுக்கை பார்த்து திறந்துவுருட்புள்ளார்</td>
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<td>23) பாரது இருந்து விளையாடு விளையாட்டு மாகாணம் சென் குவர்த்த்புயிலாம் பொருளை திறந்துவுருட்புள்ளார்</td>
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<td>24) நல்லாம் பாலாம் குவர்த்த்புயிலாம் விளையாடு விளையாட்டு பொருளை குடும்பம் திறந்து பொருளை திறந்துவுருட்புள்ளார்</td>
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<td>25) நல்லாம் பாலாம் குவர்த்த்புயிலாம் விளையாடு விளையாட்டு பொருளை குடும்பம் திறந்து</td>
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<td>முறைக் காலு</td>
<td>விசாலகாலம்</td>
<td>உ_ குறிப்பிட்டு விளக்கத்தை நோக்குவது</td>
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<td>1</td>
<td>பக்ககம்பில் பரிமாற்றும் விளக்கத்தை குறிப்பிட்டுக்காட்டு விளக்கத்தை நோக்குவது</td>
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<td>2</td>
<td>புதிய மார்பாட்டில் பரிமாற்றூடன் மாற்றுமாற்றிட்டும் மூக்காட்டுப் பக்ககிறிஸ்டின் கிளாய்ந்து</td>
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<td>3</td>
<td>பக்ககம்பில் வரலாறு பரிமாற்றும் விளக்கத்தை குறிப்பிட்டுக்காட்டு விளக்கத்தை நோக்குவது</td>
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<td>4</td>
<td>பக்ககம்பில் பரிமாற்றும் விளக்கத்தை குறிப்பிட்டுக்காட்டு விளக்கத்தை நோக்குவது</td>
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<td>7</td>
<td>பக்ககம்பில் எடுக்கு விளக்குவிட்டுது விளக்கத்தை குறிப்பிட்டுக்காட்டு விளக்கத்தை நோக்குவது</td>
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