



**UNIVERSITY OF THE PHILIPPINES
OPEN UNIVERSITY**

MASTER OF ARTS IN NURSING

MERCY JOY N. LUBIANO

**CAREGIVER BURDEN AND SOCIAL SUPPORT AMONG FAMILY MEMBERS OF
STROKE SURVIVORS: A COMMUNITY-BASED STUDY IN SAMPALOC,
MANILA, PHILIPPINES**

Thesis Adviser:

ASST. PROF. RITA C. RAMOS
Faculty of Management and Development Studies

8 OCTOBER 2022

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This Special Project titled: “**CAREGIVER BURDEN AND SOCIAL SUPPORT AMONG FAMILY MEMBERS OF STROKE SURVIVORS: A COMMUNITY-BASED STUDY IN SAMPALOC, MANILA, PHILIPPINES**” is hereby accepted by the Faculty of Management and Development Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Course.

RITA C. RAMOS

Adviser

20 April 2023

(Date)

RIA VALERIE D. CABANES

Program Chair

4 May 2023

(Date)

JOANE V. SERRANO

Dean

Faculty of Management and Development Studies

04 May 2023

(Date)



**UNIVERSITY OF THE PHILIPPINES
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FACULTY OF MANAGEMENT AND DEVELOPMENT STUDIES**

APPROVAL SHEET

We, the members of the oral examination panel for **MS. MERCY JOY LUBIANO** unanimously approved the thesis entitled “**Caregiver Burden and Social Support Among Family Members of Stroke Survivors: A Community-Based Study in Sampaloc, Manila, Philippines.**” The thesis attached hereto was defended on 30 August 2022 via Zoom for the degree of **Master of Arts in Nursing** is hereby accepted.

PANEL

ASST. PROF. RITA C. RAMOS

Adviser

MS. MA. ELMA L. MIRANDILLA

Critic

ASST. PROF. QUEENIE R. RIDULME

Member

MS. GRACE RIEGO DE DIOS

Member

MS. LOYDA AMOR N. CAJUCOM

Member

SIGNATURE

We therefore recommend that **MS. MERCY JOY LUBIANO** be awarded the degree of **Master of Arts in Nursing** from the **Faculty of Management and Development Studies**.

Very truly yours,

ASST. PROF. RITA C. RAMOS

Adviser

Endorsed:

ASST. PROF. RIA VALERIE D. CABANES

Program Chair, MAN

DR. JOANE V. SERRANO

Dean

Biographical Sketch

Mercy Joy N. Lubiano earned her B.S. Nursing Degree in Emilio Aguinaldo College-Manila in 2008. After successfully passing the Saudi Commission for Health Specialties Prometric Exam, she had a flourishing nursing experience internationally. She worked as a nurse mainly in the Medical Ward of Dr. Bakhsh Hospital- Jeddah, Saudi Arabia from 2010-2012, the opportunity brought her extensive exposure and experience in managing various medical conditions. Alongside this, she aimed to widen her horizon of nursing knowledge, thus, while working abroad, she began her Master's Degree in Nursing through Distance Learning as an Offshore student of University of the Philippines- Open University in 2011.

Following this is her journey as a nurse in the Medical Ward, then to the Coronary Care Critical Unit of Kingdom Hospital- Riyadh from 2014 to 2017. This was when she was appointed to take greater roles like being a Charge Nurse and a Critical Care Nurse Code Blue- Responder. During this period, she continued to pursue excellence, she took and passed the Qatar Prometric Exam for Nurses, she had also taken and aced IELTS, CBT and OSCE allowing her to work in the United Kingdom.

From 2017 up to the present time, Mercy Joy N. Lubiano works as a full time Band-5 Nurse in the largest specialist hospital in Northern Ireland, UK, specifically in the Cardiac Surgery-ICU of Royal Victoria Hospital. The Healthcare Institution gave her free education opportunities, and in the year 2022, she completed her Cardiac Surgery Intensive Care Nursing Course in Queen's University- Belfast. Another highlight of the year is her successful research study completion entitled "Caregiver Burden and Social Support among Family Members of Stroke Survivors: A Community-Based Study in Sampaloc, Manila, Philippines" allowing her to earn her Master's Degree in Nursing in University of the Philippines-Open University.

In total she has been a Registered Nurse for 14 years. She is happily married to Daniel Sumagang and is about to become the mother of a lovely baby girl.

Acknowledgement

This arduous study is the fruit of high aspirations, painstaking sacrifice, hard work, and strong faith- which cannot be done singlehanded. Hence, I wish to express my sincere gratitude to the following:

First and foremost, I would like to give back all the glory and honor to our Lord; the author of my journey, who has blessed me with remarkable strength, great determination, and endless provision to accomplish this work.

I would wholeheartedly give great appreciation to my husband, Daniel Sumagang, for his constant encouragement and understanding. Without his unfailing support, it would have been impossible to achieve this impressive educational goal.

I would also like to appreciate my father, mother, and siblings (Elmer P. Lubiano, Cyrel N. Lubiano, Erika N. Lubiano and Emil N. Lubiano) who have inspired and motivated me to succeed in completing this study.

I would certainly like to acknowledge my Thesis Adviser, Prof. Rita C. Ramos, for her patience and unwavering support as I aim to contribute to the enrichment of nursing practice through this research.

I would also like to express sincere thanks to my distinguished panel members, Prof. Queenie Ridulme, Prof. Loyda Amor Cajucom, Prof. Elma Mirandilla, and Ms. Grace Riego De Dios, for unselfishly sharing their expertise, guidance, and knowledge to improve my work. I would not miss to mention, Dr. Myra Oruga who has also been very approachable and open hearted in sharing insights, and also Ms. Rachel Anne Sales, for patiently reading and correcting my work.

Furthermore, I would like to give special thanks to the Barangay Chairman of Barangay 397, 399, 401, 403 and Barangay Chairwoman of Barangay 395, 398, and 402; under the leadership of Barangay Chairwoman and Sampaloc City Zone 41 Leader, PB

Wilma Taguba who gave me permission and allowed me to implement my study within their community. Likewise, I greatly appreciate the Barangay Health Workers in all respective Barangays, who actively gave their best as they worked with me, the family caregivers, and stroke survivors, while strictly adhering with the infection control protocol.

Also, I would definitely like to acknowledge the great role of my Registered Nurse-Research Assistant, Jonimel Gatan, who underwent trainings and gave her full commitment to accomplish the phone interviews of all the Family caregiver participants of this study.

Lastly, I am immensely grateful for all the family caregiver respondents who offered their time to answers to the research interview questions and gave their most accurate response, which serves as an important substance in opening better understanding in this aspect of nursing.

Dedication

This study is wholeheartedly dedicated to my husband, our soon-to-be children, and my family, who have been my inspiration and source of motivation to finish this wonderful work. They have been praying for me and supporting me especially at the most challenging period of study progression.

I also dedicate this to all stroke survivors and their family caregivers, may this study serve the great purpose of releasing greater understanding in the concept of burden which will hopefully lead to proper support strategies and interventions that will relieve their burden.

Ultimately, I dedicate and offer this study to our Lord, who gave me the best guidance, undying strength, and impenetrable protection to accomplish this wonderful work despite all the unprecedented challenges.

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Abstract

Background: The objective of the study is to determine the family caregivers' level of caregiver burden, perceived level of social support, and the relationship between degree of burden and the perceived level of social support among the family members of stroke survivors. Another purpose of this study is to assess any association these variables have with patient's severity of illness, patient's age, caregiver's age, caregiver's gender, and caregiver's relationship to the patient.

Methods: A total of eighty-two (82) respondents participated in the study, 63 among them are females, and the remaining 19 are males. They are Filipino family caregivers of stroke survivors living among eight (8) Barangays in Zone 41, Sampaloc City, Manila. Participants were interviewed via phone by a single Registered Nurse Research Assistant. The patient's stroke severity was determined using the Modified Rankin Scale. Participants' degree of Caregiver burden was assessed using the 22-question Zarit Burden Interview Scale, while their perceived level of Social Support including its subscales were assessed using the Medical Outcome Study Social Support Survey. Both Caregivers and Stroke survivors' sociodemographic details were taken.

Results: The study revealed the negative correlation between caregiver burden to their perceived level of social support and to their degree relationship with the stroke survivors, which reflects that the closer the relationship between the caregiver and stroke survivor, the greater the burden experienced by the family caregivers. A positive relationship between the Caregiver burden and the caregiver's age was also shown, which suggests that the level of burden increases as the caregivers' age increase. Additionally, the study has also seen a negative relationship between the level of perceived social support and its subscales to the caregiver's age and suggests that as the age of caregivers increase the lesser the level of social support they perceived.

Conclusion: During the Global Pandemic, Filipino family caregiver participants still reported to perceive good level of social support. However, despite the negative relationship good social support has with the degree of burden, significant number of family caregivers still verbalize experience of mild to severe degree of burden. Caregiver burden is truly multifaceted and was shown to be correlated with multiple factors.

Keywords: Caregiver Burden, Social Support, Stroke Survivors, Nursing

Chapter I

THE RESEARCH PROBLEM

Background of the Study

Stroke is a primary cause of mortality and disability worldwide (Heart disease and Stroke Statistics, 2017). In the Philippines particularly, Stroke got the third rank among the leading reasons of death (Sanchez, 2018), with ischemic stroke comprising 70% of all the cases, while hemorrhagic stroke comprises the remaining 30% (Navarro, et al., 2014). Impairment of health because of stroke impacts the Filipino family because family members stay with the patient all throughout until recovery, in order to take care of any psychosocial needs the patient may have (Galanti, 2015). They also strive to work in unity and close companionship (Yusingco, 2018). However, because of the great role in assisting stroke patients (Chuluunbaatar, Pu, & Chou, 2017) caregivers are predisposed to feel burdened (Hadi et al., 2016). Thus, to aid them during this trying period, social support has to be made available (Rahman et al., 2018).

There have been various research mounting on identifying the impact of caregiving for stroke patients worldwide. It is documented that in various countries, the result of the expeditious and unexpected changes due to sudden stroke attack is the varying levels of psychosocial burden felt by the patients together with their families (Balhara et al., 2012). In the Philippines, on top of the mentioned concern, stroke is also a financial burden among lower and middle groups because of the private healthcare system, while support towards the rural communities and the less-privileged economic group has been a challenge (Navarro et al., 2014). This could have been made worse by the ongoing COVID-19 Pandemic, which has led to various degrees of lockdown all over the Philippines and increased unemployment rate, threatening not only the Filipino's health but also their socioeconomic state (Business and Human Resource Center, 2021).

Despite the difficulties, it is documented that social support eases the negative experience of Filipino stroke survivors (Martinez et. al., 2018). In Asian countries, like the Philippines, parents and elderly family members are respected, in times of sickness, the immediate family members are hands on in giving them care and support (Bhattacharjee et al., 2012). Filipino families give great importance to the culture, values, and good behavior, like showing care to others, being polite, respectful, and exerting importance on togetherness. They enjoy close kin bonds and they highly value cooperation, closeness, and unity to overcome whatever situation they may have (Leano, 2005); for instance, re-establishing their lives, acceptance and adjustment after a family member had stroke.

Although there has been enough attention given to the prevalence of stroke, the needs of family caregiver as a consequence of looking after stroke patients are poorly understood (Denham et al., 2018). Most importantly, literatures concerning stroke found in developing countries like the Philippines is considerably lacking (Kulshreshta et al., 2012), despite being proven to be at the third rank among the common causes of mortality in this country (Sanchez, 2018). Also, even though there was research on the impact of social support to stroke patients, there has been no direct study on comparing the effect of social support to the Filipino family member's experience of burden as they look after stroke survivors, hence this study is done.

This research study aims to reiterate that we cannot truly set aside the role of patient's family during their initial encounter with stroke, for they are the primary people who could share strength and care to them. The study is useful for healthcare professionals who deal with this population to plan for more effective intervention and strategies to aid them during this drastic life change and transition. This will also be an eye opener especially among healthcare professionals that stroke patients, and their

families are going through enormous psychosocial concerns aside from the devastating health impairment patients suffer.

Overall, accepting the caregiver role is reported to be difficult due to feelings of unpreparedness in dealing with a new task, problems, and responsibilities (Lutz et al, 2017). Their hand in hand work with patients from the initial attack until recovery makes them susceptible for variety of psychosocial effects like caregiver burden. Owing to this, this research opts to know how social support may affect their overall caregiving experience.

Statement of the Problem

Family members may find it challenging to adjust with their new caregiving role, those who look after and are closest to the patients experience high level of burden (Gbiri, Olawale, & Oghenekewelsaac, 2015). Since typically, stroke occurs without a warning, the family care givers are mostly lacking any preparation for the new task assigned for them (Lutz et al, 2017).

Hence, this study is focused on the correlation between the caregiver burden among family members of stroke survivors to factors like their demographic information, patient's condition's severity, and their degree of perceived social support in a community setting. Those who have stroke and have been receiving services from several health centers in Sampaloc, Manila Philippines, were assessed in terms of age and level of stroke's severity, meanwhile their family members were interviewed and assessed for their demographic data and perceived level of social support received. In the end, the relationship of the aforementioned variables is desired to be determined.

This specific group of stroke patients' family members is chosen primarily for they are highly anticipated to experience the difficult challenges attributed to the abrupt

adjustments they face (Lou et. al., 2017). In addition, since the patients with their family caregivers are visiting the health centers to receive services, the convenience of inviting them for the phone interview with their consent while in the health center or during home visit, leads to easier data collection.

All in all, one's family provides the best comfort and greatest influence even in trying times like having a stroke, making it certain, that it is worthwhile to work on research focusing on relieving the psychosocial burden that the debilitating and chronic nature of stroke could lead them to bear.

Objectives of the Study

Research Objective:

- To determine the level of caregiver burden among the family members of stroke survivors.
- To determine the family members of stroke survivors perceived level of social support along with its specific forms such as: emotional, concrete, loving, and positive interaction.
- To determine the relationship between the caregiver burden among the family members of stroke survivors and their perceived level of social support and its variety of forms such as: emotional, concrete, loving, and positive interaction.
- To determine the relationship between the caregiver burden experienced by the family members of stroke survivors and the following factors:
 - A. Patient's Factors
 - Patient's severity of illness
 - Patient's age
 - B. Family Caregiver's Factors
 - Age of caregiver

- Gender of caregiver
- Educational attainment
- Relationship to the patient
- To determine the relationship between the perceived level of social support among family members of stroke survivors along with its various forms such as: emotional, concrete, loving, and positive interaction to the following factors:
 - A. Patient's Factors
 - Patient's severity of illness
 - Patient's age
 - B. Family Caregiver's Factors
 - Age of caregiver
 - Gender of caregiver
 - Educational attainment
 - Relationship to the patient

Significance of the Study

This study will serve as an overview of the vast alteration in the lives of the patients' family members as a consequence of the abrupt health, lifestyle, financial and social changes brought by stroke in the Philippine community setting. Moreover, the following sectors can also benefit such as:

Nursing practice: This will be an eye opener among nurses of what stroke patients and their families go through, like the reality of caregiver burden on top of the devastating health impairment patients suffer. This will also help healthcare professionals to realize the importance of providing appropriate intervention and health teachings to the families as an aid during this drastic life change and transition.

Nursing education: This will be an encouragement to provide trainings and

seminars among nurses in order for them to efficiently provide information, mental and emotional support to the families of stroke survivors who maybe in distress. It will also be a good example of evidence-based practice to be taught among nurses, in identifying the group of individuals who may be more susceptible to experiencing caregiver burden especially after they continue their lives in the community together with stroke survivors.

Nursing research: This study will serve as a reference to unlock better understanding about the effect of social support and other factors to the degree of burden felt by the patient's family caregivers once they are back in the community. It is done in response to the lacking literature about this topic, especially in the Philippines, which will hopefully fuel other researcher's determination to study and explore the vastness of effects of stroke attack to a family.

Community Health Officers: The study's result and findings will serve as an objective reference to assess those who are in greater risk of experiencing caregiver burden among the family members of Stroke patient in the community. Thus, those who will be needing thorough health teachings and further interventions to alleviate the intricate effects of Stroke could be prioritized. It will also be useful in planning for more effective intervention and strategies, like community health program implementation to support the stroke survivors and their family caregivers.

Families and patients: Overall, this will be a floodgate of opportunity for the family caregivers' burden to be addressed timely as most of them suffer since the onset of their loved ones' disease. This will also serve as an overview on the availability of social support accessible for the Filipino family members who take care of stroke survivors in an urban community. Indeed, it is an immense help for family caregivers to be recognized as an active member that facilitates health, growth, restoration, and recovery among stroke patients.

Scope of and Limitation of the Study

The population chosen in the study is solely consists of Filipino individuals, age 18 years and above, who look after their family member at home due to stroke attack, from November 25, 2021, to January 18, 2022. Total enumeration sampling method will be used to have the chosen population within Sampaloc, Manila, Philippines.

Moreover, among the known adverse effects of stroke, this study only covers description of the relationship between family caregivers' perceived level of social support, their sociodemographic factors and patient's stroke severity to the caregiver's reported degree of burden. Meanwhile, since data collection was done during the height of COVID-19 Pandemic, face-to-face interaction was limited, and for safety purposes, data collection was via phone interview.

Chapter II

THEORETICAL BACKGROUND

Review of Related Literature

Stroke

Stroke or Cerebrovascular accident is an abrupt function loss resulting from blood circulation disruption towards the areas of the brain, whether due to occluded blood vessels or hemorrhage resulting from ruptured vessels. This condition happens due to multiple factors; age, sex, race, and heredity are under non-modifiable reasons, while lifestyle, diet, stress, smoking, and lack of exercise are the modifiable ones. Also, diseases such as hypertension, aneurysm and diabetes may result in Stroke or Cerebrovascular Accident (Le Mone et al., 2015).

The 2017 Heart Disease and Stroke Statistics claims that annually, about 795,000 individuals experience either their first or recurrent stroke attack, where 610,000 of this proportion are new stroke patients, and the remaining 185,000 are recurrent attacks. Stroke is considered as the primary cause of critical long-term disability solely within the United States and was at the second rank among the causes of mortality next to heart disease in 2013, which form the total of 11.8% of deaths across the globe (Heart Disease and Stroke Statistics, 2017). Based on statistics, among the 15 million cases of stroke, roughly 5 million survivors are left with permanent disability (Stroke, n.d.)

In Southeast Asia countries, death is more commonly related to non-communicable diseases, like heart problems, stroke, cancer, COPD, Diabetes and Kidney disease. In the Philippines specifically, stroke is the third most common reason of death (Sanchez, 2018). Ischemic stroke comprises 70% of the overall recorded stroke occurrence, while the remaining 30% is consisting of hemorrhagic stroke incidents among Filipinos (Navarro et al., 2014). Also, according to the 2014 statistics, stroke has

been the cause of 12.4% of death in the Philippines particularly among the population within the age group of 50 years old and above (Mojica, & Jerez-Cortez, 2010). It is assumed that around 500,000 Filipinos will be affected by Stroke annually (Gonzalez-Suarez et al., 2015).

Filipino Family Caregivers' Culture and Characteristics

Family is the society's basic unit (Definition of Family in English from the Oxford dictionary, 2017). It refers to any of the categories of people who are: related by birth, adoption or marriage; in an intimate relationship; in a domestic relationship that is sharing the same household (Kheisl, & Trigoboff, 2009). Typically, Filipino families consist of a husband, wife, and children, but may extend to include grandparents, and other relatives like cousins, aunts and uncles (Family, accommodation, studies and Jobs in Philippines, n.d.). At present, as changes in society becomes apparent, other Filipino family structure emerged as well, for instance: childless couples, single-parent family, cohabiting arrangement, blended families, and domestic partnerships of homosexuals (Cruz, 2014).

Filipinos are known to have very strong family ties and support system from the community (Understanding Filipino Culture, 2013). Traditionally, each family member has a corresponding role that are expected for them to fulfill. For instance, the father is expected to be the breadwinner, leader, and protector of the family. The mother is then in charge of managing the home by being responsible for the budget and keeping each member live harmoniously. The male sibling is taught to follow the example of his father, and the female sibling, the role of the mother (Leano, 2005). However, due to the on-going transition in the modern society, Filipino families face several changes presently, one of these is the increasing number of labor migration from the Philippines, which has made families to be apart and smaller according to the International Organization for

Migration (2013) (as cited in Cruz, 2014). In addition, the changing role of women has also been evident, which is reflected through the increasing percentage of female-headed households. Based on Census of Population and Housing, (2010) 15.9% of households in the Philippines are headed by females, which increased from 11.3% in the last decade. Indeed, the emergence of female-headed households is an urban phenomenon (as cited in Cruz, 2014).

In terms of caring for one another; sharing tender loving care is central in every Filipino homes. This is especially seen in how every member treats one another in the family. They also show care through their commitment in searching for knowledge and action that improves the well-being of their family members (Leano, 2005). Caregiving for the Filipinos are learned even in the early years of their lives, hence sick family members are usually being looked after by one another. In line with this, a study done revealed that almost all Filipino patients who participated in a study, are full of stories to share on how they were taken care of by their family while they were ill. The caring moments they had in the hospital reminded them primarily of their family (Sasa, 2012).

Burden bearing or "*pagdadala*" in the Filipino language, describes the coping mechanisms chosen by Filipinos as they encounter stress throughout their life experiences. This depicts various coping techniques to make life concerns become less burdensome among Filipinos and one of these is "*pag-alalay*" or provision of support in emotional or other forms (Decenteceo, 1999). According to Agoncillo (1990), it can be concluded that since the ancient times, Filipinos belongs in a society flourished in extended but closely bonded family groups within a certain community. This is the reason behind the strong family ties among Filipinos, it is the cornerstone of the society; hence everything is related around it.

Despite the living circumstances many Filipino families embrace a strong sense of value on closeness, cooperation, and unity with one another regardless of the type of situation they may have. Companionship is very essential among Filipinos that they try to make time for one another no matter how busy (Leano, 2005). In fact, the inclination of Filipinos on social media has made Filipinos to spend an average of 10 hours and 2 minutes daily on various social media, for example: Facebook, Snapchat and Twitter; making the Philippines as the topmost country in terms of internet utilization worldwide (Aguilar, 2019). The changes experienced on our modern society could impact the Filipino family in various ways, which includes the way they are affected by major health and functional experience like looking after a family member following a stroke attack.

Caregiver Burden

Nowadays, roughly 4.8 million stroke survivors with varying degrees of disability need support from family caregivers in the community (Jaracz et al., 2015). Although the breakthroughs and improvement in healthcare have made the survival rate higher and lifespan longer even after stroke attack, the chances of disability after sustaining stroke remains high (Chuluunbaatar, Pu, & Chou, 2017). Approximately half of the people who had stroke still require assistance from a caregiver (Denham et al., 2018). However, due to the abrupt nature of stroke (Le Mone et al., 2015), there is insufficient time available for caregivers to be prepared for the new task (Moon, 2017). The association between caregiving and experiencing high burden has been significant (Hadi et al., 2016).

Caregiver burden is defined as the stress and load that caregivers bear for looking after a family member who has chronic illness and disability (Stucki, & Mulvey, 2000). According to Zarit, et. al., this response can be multidimensional, as it is a result of stressors that caregivers experience physically, mentally, emotionally, socially, and

financially. Also, it can be described as objective or subjective, or both. Objective burden refers to the actual assistance that caregivers do to physically aid the patient, while subjective burden is the effect of caregiving in a caregivers' psychological, social, and emotional aspects (as cited in Bhattacharjee et al., 2012).

Negative consequences of caregiver burden were highlighted by past studies. A study done in Turkey, has determined that 86.4% out of 66 caregivers have felt that caregiving has negatively affected their overall health (Tosun, & Temel, 2017). Caregivers can also be affected socially as they can feel isolated due to caregiving (Asiret & Kapucu, 2012). Furthermore, previous studies have documented the physical and psychological burden that stroke patients' caregivers experience as they provide long-term care for stroke survivors (Jaracz et al., 2015; Hadi et al., 2016). Accordingly, health problems such as stress, sleep disorder (Usha, 2015) depression, and anxiety (Balhara, et. al., 2012) were reported.

Alongside the life changes secondary to caregiving, financial problems occur as well due to the inability of caregivers to go to work (Asiret & Kapucu, 2012) This could have been made worse by the COVID-19 Pandemic. Since it started, the higher unemployment rate which following the implementation of various degrees of lockdown all over the Philippines, has threatened not only the Filipinos' health but also their socioeconomic state. (Business and Human Resource Center, 2021). This concern is truly magnified in the Philippines, because on top of the stroke-related concerns the family carers bear, healthcare is relatively private. This requires them to pay medical bills, hence stroke is truly a financial burden among lower and middle groups. (Navarro et al., 2014).

Stroke Severity's Effects on Caregivers' Burden

Stroke causes abrupt function loss due to the blockage of blood supply towards the brain, and the degree of condition severity may vary greatly (Le Mone et al., 2015). Even though there has been a decline in number of stroke related deaths (Lackland et al., 2014), still approximately fifty percent of all stroke survivors are left permanently disabled and in need of their family caregivers' support to fulfill their daily regular activities (Denham et al., 2018). A stroke may happen to an individual in the blink of an eye; thus, it can be overwhelming for family members who will be given the role of being a caregiver to the stroke survivor after the event (Moon, 2017).

The wide range of drawbacks of family members of patients with post-stroke experience cognitive losses were presented by several literatures. One study done among 150 caregivers and stroke survivors in a couple of outpatient clinics in Nigeria has presented a result that caregiver burden is associated with the degree of stroke survivor's disability. Specific predictors that contribute to the level of caregivers' burden were incontinence, psychological changes, greater disability after the attack, and more tasks required from the caregivers (Oni et al., 2019). Also, a study has shown that a patient's better ability to do activities of daily living decreases and psychological health significantly reduces the degree of burden among caregivers. Hence, it is also suggestive that workload has positive correlation with the degree of caregiver burden (Zhu & Jiang, 2018).

Meanwhile, 95 surveys done among informal caregivers of stroke survivors who visits Stroke Transition Education and Prevention Clinics has also illustrated that Caregiver burden was strongly associated with stroke survivor physical disability (Achilike et al., 2019). A point to consider in relation to this is that it may feel overwhelming for caregivers to function doing their usual roles on top of the roles that

were previously assumed by the stroke survivor (Grant, Hunt, & Steadman, 2014).

Effects of Patient's and Family Caregiver's Demographic Data on Caregiver's Burden

Due to stroke's chronic nature, there are an estimated 4.8 million stroke survivors in the community who depend on their family and friends for physical and emotional support (Jaracz et al., 2015). However, because of the abrupt and enormous role they take, caregivers can be at risk of experiencing burden (Hadi et al., 2016). According to Montgomery, Stull, and Borgatta (1985) caregiver burden is the term that describes the caregivers' load because of taking over a caregiver responsibility for a period.

Several studies have investigated factors such as patient's age that may lead to subsequent burden among caregivers. The result varies greatly in the studies done which examine the effect of patient's age on the level of caregiver's burden. A cross-sectional design study which was carried out through home visitation among 66 family members who take care of stroke patients in the European site of Turkey has evaluated that caregiver burden is related to younger patient's age (Tosun, & Temel, 2017). Other known studies have found the effect of patient's age to be unrelated to the degree of burden felt by their caregivers (Jaracz et al., 2014; Asiret & Kupucu, 2013).

On the other hand, there were studies done as well to analyze the caregiver factors or demographic data that could influence the degree of caregiver burden, and one of these is the caregiver's age. Results of several studies has pointed out that caregiver's age has no correlation with the degree of caregiver burden; one of these is the study done by Tosun and Temel, (2017) which was done among 66 family caregivers through home follow-up in Turkey. Similar result was also noted in a study in Poland (Jaracz et al., 2014). In addition, a research study in Mumbai, India (Bhattacharjee et al., 2012)

presented the same conclusion that caregiver's age was not related to increased caregiver burden. However, in contrast a study done among 183 partners of stroke survivors in Netherlands, high caregiver burden was noted among younger caregivers (Kruithof, et.al., 2016).

Furthermore, there were also several past studies which assessed other possible caregiver factors that could lead to burden after the stroke attack such as gender. Although research in Turkey concerning the burden of caregivers for survivors of stroke in Turkey has resulted that caregiver's burden has no significant relationship to their gender (Tosun, & Temel, 2017), according to a substantial number of past research, being a female caregiver is a strong determinant of higher caregiver burden. Also, an earlier report (Verma, as cited in Balhara et al, 2012) on a small population of stroke patients and caregiver dyads revealed significant correlation between anxiety level of male caregivers and depression level of stroke patients. It is also observed that anxiety level of female caregivers was related to anxiety level of stroke patients. Moreover, another study in Mumbai, India among 111 caregivers of stroke patients has depicted that being a female predisposes caregivers to greater burden at 28 days, six (6) months, and one (1) year following the stroke event (Bhattacharjee et al., 2012).

In line with this, the effects of caregiver's education level on caregiver burden was also explored by several past studies. Likewise, the effect was shown to be non-consistent among the studies done which considered the caregiver factor like educational attainment. Tosun and Temel, M., (2017) for instance has found out that caregiver's degree of burden has no relationship with their educational attainment, after data was taken and analyzed from 66 patients and caregiver pairs. In addition, a prospective population-based study (Bhattacharjee et al., 2012) done with 111 caregiver respondents, has also supported that education level of caregivers was not

related to caregiver stress and burden. In sharp contrast, a study (Jeong et al., 2015) done in South Korea with 238 pairs of stroke survivors and caregivers has seen that caregivers' educational level is associated with caregivers' quality of life which in the study is closely linked with caregiver burden. A separate study done among 126 stroke family caregivers in Northern Taiwan also similarly depicted that lower caregiver educational attainment can negatively impact their quality of life, as mediated by caregiver burden (Tsai et al., 2018).

Moreover, other caregiver factors like employment status were also assessed for its impact on caregiver burden, however, the findings are not constant as well. There was a prospective longitudinal study that recruited 89 ischemic stroke patients admitted to a tertiary referral hospital in southern Taiwan and their caregivers, this study revealed that caregivers who had changes in employment status due to caregiving were more likely to have considerable strain (Jen-Wen Hung, et.al., 2012). Meanwhile, a study in Mumbai, India which focused among one hundred eleven caregivers of 127 stroke survivors was ended in a conclusion that caregivers' employment status has no relationship with their burden (Bhattacharjee et al., 2012). Likewise, the research done by Tosun and Temel (2017) has supported the same finding that employment as a caregivers' characteristic does not affect their level of burden.

In addition, to understand how other caregivers' factors can predispose to their burden for taking care of stroke patients, income of family caregivers was also taken into consideration by various studies. For instance, multi-centered observational research was done in nine government healthcare institutions in Mongolia to assess the level of burden among informal caregiver in the first year of taking care of stroke survivors. The results suggest that within the year the demand burden felt by caregivers increased which is negatively related to their stress burden. The overall caregiver

burden as an outcome of looking after stroke survivors is strongly affected by various factors, and one of these is presence of financial setback (Chuluunbaatar, Pu, & Chou, 2017). Another study was done which had a total of 238 stroke patients and their family caregivers. The data collection was held at University and Rehabilitation Hospitals in Seoul and Gyeonggi-Do province as patients were having their rehabilitation therapy, it evaluated that caregiver burden is positively associated with caregiver's income (Jeong et al., 2015). In parallel to this, a separate study done by Tosun and Temel (2017) utilizing a cross-sectional design in Turkey, which was done through home visits on 66 family members of stroke patients. The final findings reflect that higher levels of caregiver burden were experienced by patient's families with lower income. Also, an earlier report (Verma, as cited in Balhara et al., 2012) has suggested that financial issues can increase the caregiver's stress; thus, increasing their burden.

Finally, there are few research mounted to investigate subjective burden among family caregivers and the possibility that the reason behind their varying levels of emotional distress depends on their relationship to the patient. Although according to a study done in India (Bhattacharjee et al., 2012) partners of stroke survivors have lesser degree of stress as opposed to daughter-in laws who look after stroke patients, it is noted in another study done by Kruithof, et.al., (2016), that many spouses of stroke survivors experience increased feelings of burden, anxiety and depression, which they continue to endure even a year after their partner had stroke. There was also a study (Gbiri, Olawale, & Oghenekewelsaac, 2015) involving 157 family caregivers of stroke patients from several physiotherapy out-patient clinics in secondary and tertiary health institutions in Lagos, Nigeria, which found out that there was a significant relationship between the level of burden felt by the caregivers to the type of relationship they have with the stroke patient, it concluded that the closer intimacy with the stroke

survivors could cause more burden for the caregiver. It is significantly felt as well by those who look after and are providing informal caregiving to stroke survivors (Pont et al., 2018).

Filipino Patient's and Family Caregiver's Demographic Data on Caregiver's Burden

There were limited studies done among Filipinos to analyze the caregiver and stroke survivor's demographic factors that could influence the degree of caregiver burden felt by those who look after stroke patients in the Philippines. For one, the impact of Caregivers and Stroke survivor's age is unknown in developing countries like the Philippines, where there has even hardly any literatures found concerning the consequences of caregiving (Bhattacharjee et al., 2012). Caregiver's gender has also been taken into consideration as a possible factor that could affect how care is provided within Filipino families because of the changing roles of women in the past few decades. This is reflected by the increasing number of females being the head of their family in the Philippines based on Census of Population and Housing, (2010); hence it is worthy to analyze what this change can bring to the Filipino family caregivers of stroke survivors (as cited in Cruz, 2014).

On the other hand, educational attainment and employment status, were also chosen as a factor to be assessed, because the Philippines belong to the list of developing countries, where good education help achieve greater job opportunities with better compensation either in the Philippines or abroad. Unfortunately, pursuing education is an uphill climb, due to the need to provide contribution for their families' needs; hence, in many cases, going to school is taken aside. Filipinos are also willing to work outside the country, to be able to help their families financially (Family,

accommodation, studies, and jobs in the Philippines, n.d.) especially whenever medical needs arise. Due to the private healthcare system in the Philippines, having medical condition like stroke is truly a financial burden among lower and middle groups, as they are required to pay medical bills out of their own resources (Navarro et al., 2014).

Meanwhile, a typical Filipino home may include extended family members like aunts, uncles, and grandparents. Houses are usually built near each other to maintain the closeness in the family (advameg, n.d.); and though it is known that relationship to the patient can affect the degree of burden felt by the caregivers on other parts of the world (Gbiri, Olawale, & Oghenekewelsaac, 2015; Bhattacharie et al., 2012; Kruithof et.al., 2016) the effect on the Filipino caregivers with close knitted and extended family setting are still unknown.

Taken as a whole, family caregivers may have to bear major life aspects alterations secondary to their emotional distress; thus, healthcare providers must have wide perspective when determining the effect of stroke on family members.

Social Support

One's social support system pertains to the available personal contact accessible for an individual from another person or a group of persons according to Powell (1990). Lowenthal and Haven (1968) also defined it as the social support a person is affiliated to which serves as vital aspect of emotional connection establishment, as it is highly related to peer support, support groups and system. Moreover, it can also be felt through the help from family, relatives, circle of friends, colleagues or co-members in an organization and others (as cited in Valderama, 1993). Social support system has two aspects: quantitative and qualitative. Its quantitative dimension describes the number of people interacting and their frequency of communication, which means that social

support depends accordingly to presence of intimacy and the frequency of interaction. Meanwhile, the qualitative dimension pertains to the emotional, informational, tangible, positive social interaction, or affectionate type of support (as cited in Valderama, 1993).

An individual's social support is concluded to play an important role in the degree of psychological distress felt experienced by family caregivers of stroke patients (Nayab, & Rukhsana, 2016). Thus, there have been multiple studies aimed at determining the possible effects of social support on the psychosocial burden felt by stroke survivor's family caregivers. A cross-sectional study done among 56 informal caregivers of patients who had stroke in a tertiary hospital in Nigeria, has reported that 96.7% of caregivers experienced caregiver burden, while only 17.9% has perceived social support, and it was figured out that the degree of perceived social support is strongly related with burden (Akosile et.al, 2018).

A different study with 18 participating caregivers from November 2015 to June 2016 in some of Kuching Sarawak's Rehabilitation Centers, has highlighted the caregivers' need for knowledge to take care of patients who survived stroke and to overcome the stress of providing care. It has also been revealed that lack of social support is associated to high burden, in addition to other aggravating factors such as financial setbacks, multiple responsibilities, and behavioral changes of stroke patients (Rahman et.al., 2018). Another study with a primary objective of evaluating the relationship between presence of social support and coping on psychological impact of caring for stroke patients, was done with 90 family caregivers of stroke survivors in various hospitals in Pakistan, it has concluded that social support has a vital role in psychological distress experienced by stroke patient's family caregivers. Furthermore, it also reflected that caregivers' depression is negatively predicted by caregivers perceived social support from the family (Nayab, & Rukhsana, 2016).

There was a couple of research done in the Philippines that describes the great effect of social support but was focused among Filipino stroke patients solely. One of these is the study (Martinez et. al., 2018) which explores the experiences of seven young Filipino adult stroke survivors, has reflected the massive impact of family support to their coping and adjustments. One among the seven Filipino stroke survivors who was just 38 years old on the time of stroke attack, has reported the importance of love ones during this trying period because it is a motivator towards wellness for the burden experience. Overall, for the patient, the centrality and ambiguity of the family during the stroke event, is a great reminder of the reason to fight continuously despite having the disease. Another study (Mojica & Jerez-Cortez, 2010), done among 22 patients in the Out-Patient Department of Philippine General Hospital- Rehabilitation Medicine, had stated that a decline in ability to do activities of daily living was documented among stroke survivors during discharge, however, variables such as family support and resources are factors which positively affect the patient's functional outcome during rehabilitation period.

In general, despite the positive effects it brings to the degree of burden among caregivers (Nayab & Rukhsana, 2016), according to Greenwood, Pelone, & Hassenkamp, (as cited in Tosun & Temel, 2017) it has been found that the number of researches done to assess the effect of supportive interventions to the burden felt by caregivers is limited. Although, few research was done in the Philippines to determine the result of social support towards stroke patients, there was none to describe how stroke survivor's caregivers experience varies as a response to presence or insufficiency of social support, especially during COVID-19 Pandemic; hence the reason for facilitating this study.

Synthesis

The literature review focused on statistics concerning the emerging trend of stroke occurrence and the subsequent effect it has not only among stroke survivors but also to their family caregivers. In particular, the studies were reviewed to depict the relationship between family caregiver burden to their perceived level of social support and specific sociodemographic data both from the caregivers and stroke patients.

Stroke or Cerebrovascular accident is an abrupt function loss resulting from blood circulation disruption towards the areas of the brain, whether due to occluded blood vessels or hemorrhage resulting from ruptured vessels. It is the second leading cause of death in the world and is the third among the leading causes of mortality in the Philippines. Stroke may happen abruptly, leaving survivors to endure chronic turmoil in physical, psychosocial, and cognitive abilities. On the other hand, family members of stroke patients are mostly unprepared and overwhelmed by the new role they play, as they become the stroke survivors' primary source of practical and emotional support, this predisposes caregivers to feel burdened.

Caregiver burden is the degree of difficulty, strain or negative consequences felt by the family member as a result of looking after the stroke patient. A considerable number of studies were done in various parts of the world which documented that patients and their families experience physical and psychological burden as they provide care for stroke survivors. Families of patients who had stroke experience high levels of physiological and emotional distress which is most difficult especially at the onset of the condition.

Substantial studies were done in different countries that had led to findings that several factors are viewed to increase the degree of caregiver burden felt by family

members, for instance the patient's severity of illness and caregivers' gender which is being a female, closer relationship to the patient, having low income, and low perceived quality of support. Whereas some researches has highlighted some caregiver's factors that have varying effects on the level of caregiver burden like the patient's and caregiver's age, caregivers' educational attainment and employment status.

In the Philippines, family is the basic unit of the society. Some Filipino homes are consisting of husband, wife, and children and can extend to other family members like aunts, uncle, and grandparents; but nowadays other modern family structures also exist. Changes in the women's role, increase number of labor migration and use of social media have become more evident part of the modern Filipino society. Despite their living circumstances, many Filipino values companionship and closeness because family is a great source of support, even in drastic events like having a stroke. In relation to the distinct culture, it is worthwhile to study how the extended family structure, values, and characteristics specific among Filipinos on top of the caregivers' and patients' factors, impact the degree of burden among Filipino family caregivers during global pandemic.

The literature research was carried out from 2018 to 2022 through citation chasing, and electronic search on following databases: PubMed, Medscape, BMC, Science Direct, and others. This also include manual search on printed books and related studies available in National Library of the Philippines and Queen's University Belfast Healthcare Library of Northern Ireland.

Theoretical Framework

Stroke family caregivers are mostly caught off guard by the demands required of them, since stroke survivors and their caregivers do not have sufficient time to deal with the shock and crisis of sudden stroke attack (Lutz et.al, 2017). Indeed, Stress can be experienced by an individual if there is perceived insufficiency in biological, psychological, or social system resources in comparison to his or her physical or psychological demands (Sarafino, 2012). Hence, there are theories created to explore various aspects of this turbulent experience, and one of these is the Cognitive Theory of Psychological Stress and Coping by Lazarus and Folkman (1984), which is specifically chosen to understand this research study better.

According to Richard Lazarus, the person and their environment are interrelated in such a way that when stressors are present in an environment, the person responds, accordingly, hence exhibiting a two-way relationship. Psychological stress could happen when the evaluated environmental demand outweighs a person's resources. Congruently, to cope, individuals use approaches to focus either on their emotion or on the problem, to refrain from endangering his or her well-being (Lazarus & Folkman, 1984). In relation to the experience of family caregivers of stroke survivors, burden can be similarly felt when their psychological and social resources are lacking (Cumming et al., 2008). Overall, the impact of caregiving to a stroke survivor's family depends greatly on how the caregiver evaluates, focuses, and finally adapt to the situation.

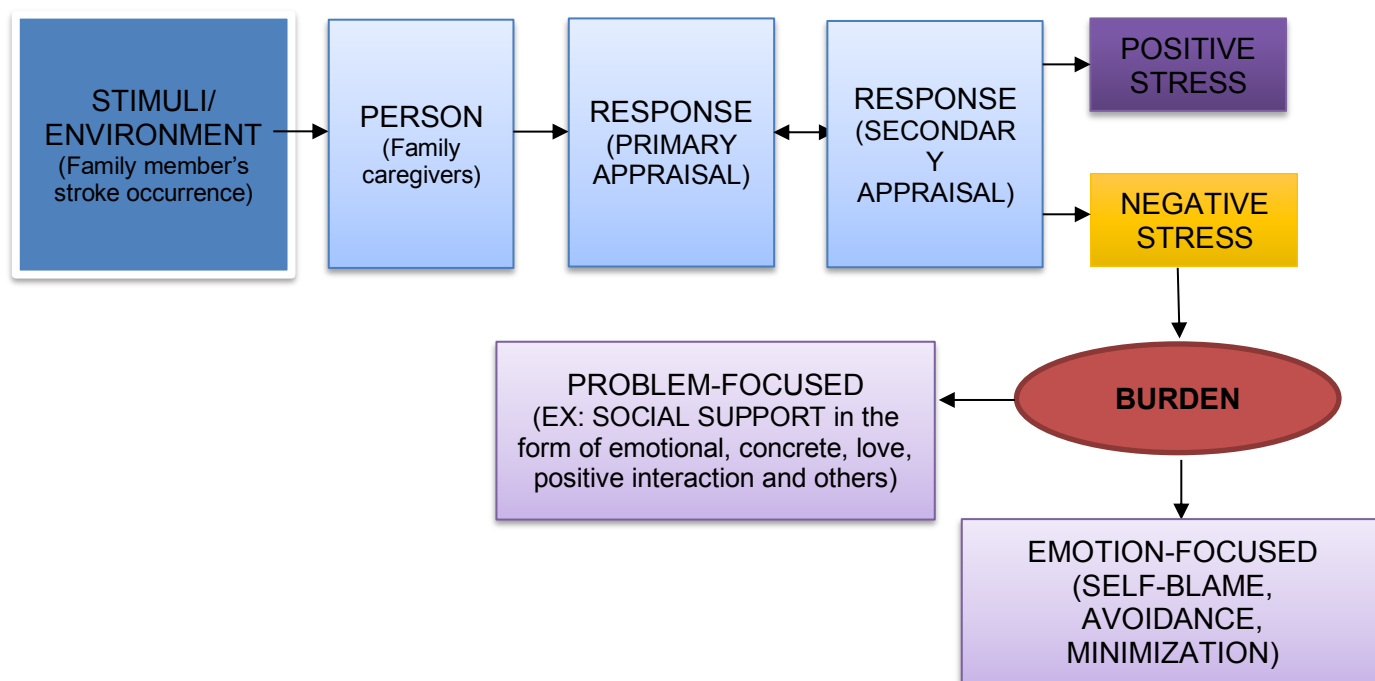
In a more detailed perspective of the Cognitive Theory of Psychological Stress and Coping, it states that an individual experiences cognitive appraisal starts when two major factors are investigated, first is considering whether a situation is threatening, which occurs during the "Primary Appraisal". During this phase, the initial part is when a person can evaluate a situation as non-important, as something good, or a stressor.

Then if it is considered a stressor, the next part has to do with classification if the situation is a threat, a challenge, or harmless. Meanwhile “Secondary Appraisal” which could happen before, during or after the “Primary Appraisal” is focused on the assessment of resources that could either lead to a negative or positive reaction towards the stressor (Sincero, n.d.).

As a response by an individual encountering a stressful situation, Lazarus and Folkman (1984), has presented two ways of coping: emotion-focused and problem-focused coping. Emotion-focused is a form of coping that is chosen primarily if there is unknown way to control the source of stress. It aims to minimize the negative impact of a stressor; for instance, feelings of embarrassment, fear, anxiety, depression, excitement and frustration, however it does not directly address the stressor. Emotion-focused coping techniques include drug therapy, distraction, emotional disclosure, praying for guidance and strength, meditation, eating more, drinking alcohol, using drugs, journaling and inhibition of negative thoughts and feelings (McLeod, 2015).

On the other hand, problem-focused coping’s main objective is to get to the bottom of the problem to remove or reduce the source of stress, which includes the following: problem solving, time-management and seeking social support. According to past studies, this option is known to resolve the stressor or problem as opposed to emotion-focused coping (McLeod, 2015). Hence, in relation to the research study, it can be concluded that healthcare provider can indeed aid the family caregivers of stroke patients by giving them professional support, and likewise identify families lacking with social support which is an essential element in helping them adjust and finally cope.

Figure 1. Process in which an individual reacts and cope with an environmental stimulus or stressor



Major Concepts of Cognitive Theory of Psychological Stress and Coping by Lazarus and Folkman

1. **Man:** For Lazarus and Folkman, man is the individual subjected to environmental stressors; however, outcome effects of stressors are mainly dependent on the degree of psychological and social resources or support of the individual.
2. **Environment:** Existing forces outside the organism that could produce stimuli for stressors.
3. **Nursing:** Is viewed as a resource person, empowering positive response to stress and providing support in times of burden.
4. **Health:** A word symbol that implies forward movement of personality and other ongoing human processes in the direction of creative, constructive and productive living despite presence of environmental stressors by proper coping and utilization of available support system.

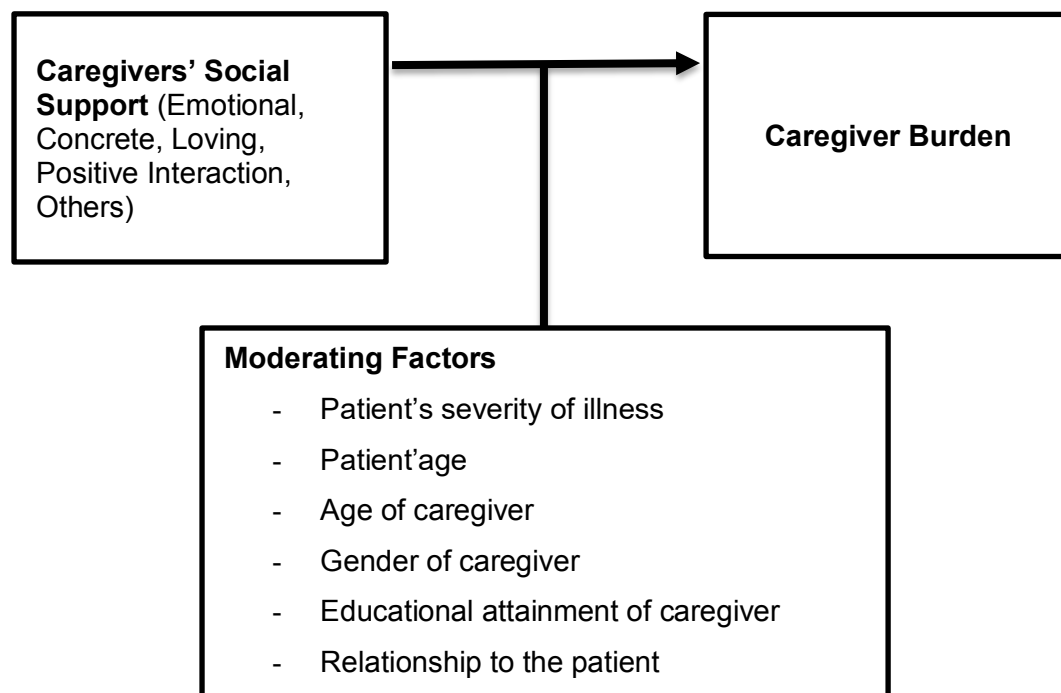
Conceptual Framework

The box on the left represents the social support that a caregiver perceives to receive. This can be in various forms, which are categorized under emotional, informational, tangible, positive social interaction, or affectionate support in this study.

The arrow connecting the left box to the right box represents the direct relationship of family caregiver's perceived level of social support to the level of caregiver burden who look after their stroke survivor family member. In addition to this, a straight line is drawn connected to the arrow to another box which represents the possible effects of moderating factors: like patient's severity illness and age, and caregiver's factors like their age, gender, educational attainment, and relationship to the patient, to the level of caregiver burden.

Meanwhile, the box on the right side depicts the burden, it is represented as the outcome, which is affected by the level of social support and various moderating factors among family caregivers of stroke patients in the chosen community in the Philippines.

Figure 2. Conceptual Framework



Operational Definition

Age: Refers to the duration of a person's existence and is measured in terms of years to imply an individual's development. This is one of the sociodemographic variables of caregiver and patient.

Barangay: A native term locally used in the Philippines to refer to a village or district. In the Study several barangays will be visited to approach Family Caregivers of Stroke survivors living in the community for data collection.

Burden: Is defined as the degree of difficulty, strain or negative consequences felt by the family member as a result of looking after the stroke patient. As its measure the Zarit Burden Interview will be utilized, where a higher score conveys a higher level of burden.

Caregiver: Is a family member who primarily looks after and provides care, without receiving compensation, for a stroke survivor in the community who just had first stroke attack who are receiving maintenance medications in a health center in Sampaloc, Manila, Philippines. The family caregiver of the stroke patient must be willing to participate in the study and has met the inclusion criteria of the study.

Degree of Disability: Refers to the physical effect of stroke on the stroke survivor. In the study it will be measured using the Modified Rankin Scale, where a score of zero (0) means no disability and a score of six (6) means dead.

Educational Status: Refers to the highest level of education that a person has attained. In the study it is classified whether elementary, high school or college level. It is another sociodemographic variable of family caregivers.

Employment Status: Indicates the status of an economically productive individual in terms of employment, in the study it can be categorized as employed, unemployed or self-employed. This is one of the sociodemographic variables of family caregivers.

Family: Family refers to any of the three categories of people who are: related by birth, adoption, or marriage; in an intimate relationship; in a domestic relationship that is sharing the same household.

Gender: Is the behavioral, cultural, or psychological characteristics normally associated with either being a female or a male. It is another sociodemographic variable of family caregivers.

Relationship to the Patient: Refers to the type of family connectedness the caregiver has to the stroke patient, which can be a parent, child, spouse, sibling, parent-in-law or others (aunt, uncle, cousin). It is one of the sociodemographic characteristics observed on family caregivers of stroke survivors.

Social Support: Refers to the help or assistance received or perceived to have by the family caregivers as they take care of the stroke survivor, whether it is in the form of relief from performance of the actual caregiver role, provision of financial assistance, provision of information or technical assistance and available person whom they can talk to like healthcare professionals and/or other individual. As its measure, the Medical Outcome Study Social Support Survey was used, where a higher score conveys a higher level of perceived social support among the family caregivers of stroke survivors.

Stroke: Occurs when blood flow to the brain is impaired resulting in death of cells. There are two categories of stroke: ischemic if it is due to blockage that stops the flow of blood, and hemorrhagic, if it is related to bleeding. Family caregivers of stroke patients living in the community are the target sample population of the study.

Research Hypothesis

The following hypotheses is tested using the 0.5 level of significance:

1. **Null hypothesis:** There is no significant relationship between caregiver burden and the perceived level of social support among family members.

2. **Null hypothesis:** There is no significant relationship between the caregiver's burden and the following non-modifiable factors:

A. Patient's Factors

- Patient's severity of illness
- Patient's age

B. Family Caregiver's Factors

- Age of caregiver
- Gender of caregiver
- Educational attainment
- Relationship to the patient

3. **Null hypothesis:** There is no significant relationship between the caregivers' perceived level of social support and the following non-modifiable factors:

A. Patient's Factors

- Patient's severity of illness
- Patient's age

B. Family Caregiver's Factors

- Age of caregiver
- Gender of caregiver
- Educational attainment
- Relationship to the patient

Chapter III

RESEARCH METHODOLOGY

Research Design

The research design chosen for the quantitative study is cross-sectional, non-experimental descriptive correlational design since the study's main objective is to determine the impact of social support and various sociodemographic factors to the degree of burden felt by family caregivers of stroke survivors.

Stroke survivors living in the community who are receiving services from Barangay 395, 397, 398, 399, 400, 401, 402 and 403 Health centers in Sampaloc Manila, Philippines; were assessed in terms of degree of disability and age, then concurrently, their family members were interviewed over the phone to determine their perceived level of social support, some sociodemographic information, and the degree of caregiver burden they have. In the end the correlation between the variables is desired to be determined to identify the outcome of stroke among Filipino families in the certain area.

Sampling Design

The chosen subjects in the study are Filipino family caregivers above 18 years old, of stroke patients who are receiving health services from Barangay 395, 397, 398, 399, 400, 401, 402 and 403 in Sampaloc, Manila, Philippines. They must be willing to be a part of the study. There can be more than one family caregiver participants per stroke survivor, for as long as the participants have different degree of relationship with the stroke survivor. Moreover, the patient must not have any non-stroke illness that would dominate the patient's care (example: Cancer or heart failure).

In order to have a population that possesses these characteristics, samples were

collected through Total Enumeration sampling technique. This was done by asking barangay health workers for a list of stroke survivors living within the community. Then all family caregivers who meet the inclusion criteria and are experiencing similar family challenges due to stroke occurrence were invited to participate in the study.

A total of 82 patient and family carer dyads are intended participants in this study. Statistical power analysis using the G*Power version 3.0.10, sample size in this study was determined. Using the family of t tests, statistical test of Correlational: Point of Biserial Model. Type of power analysis of A priori: compute required sample sized – given α , power, and effect size. Input parameters determine were two-tailed, effect size $[p] = 0.3$, probability of error $\alpha = 0.05$, and power $(1 - \beta \text{ probability of error}) = 0.80$, sample size was calculated to be 82. The study would have needed a total of eighty-two (82) respondents.

A similar study done by by Akosile et al (2018) to determine the relationship of caregiver burden among informal caregivers of stroke survivors to their perceived degree of social support has 56 total respondents.

Research Setting

The interview and assessment of stroke patient's family members were done in the community of Sampaloc, Manila, Philippines. Phone interview for data collection will be conducted among family caregivers of Stroke survivors living in Barangay 395, 397, 398, 399, 400, 401, 402 and 403 in Manila, Philippines.

Sampaloc is one of the 16 administrative districts of Manila with a population of 395,111 people according to the national census in the year 2020. This setting is chosen out of proximity and convenience, since the researcher is a local resident living in Manila. In addition, statistics has shown that Metro Manila has the highest incidence of Cerebrovascular Disease or Stroke in the Philippines (Sinson, Rebanal, & Timbang,

2015), thus it is anticipated that significant number of stroke patients and caregivers will be available in the chosen communities.

Instrumentation

There are several instruments or tools to be utilized for the study to achieve its objectives. The Modified Rankin Scale, which is a widely used tool in evaluating the outcome of stroke, was chosen to assess the patient's degree of disability in the study. It is a categorical scale with seven levels capturing the degree of patient's functional independence right after a stroke event. Scores may range between 0 for completely independent patients to a score of six which imply death. Previous randomized clinical trials were done, which documented it to be valid, reliable, and recommended tool to measure outcome in studies among patients who had acute stroke. Inter-rater reliability of Modified Rankin Scale is moderate with kappa 0.56 versus 0.78; while its test-re-test reliability is depicted to be strong with kappa of 0.81 to 0.95 (Banks & Marotta, 2007). This instrument is in the public domain (NINDS CDE, n.d.)

On the other hand, family caregivers were assessed using the Medical Outcome Study Social Support Survey. It is a multi-dimensional and self-administered five-point Likert measurement tool which consists of 19 items that measure functional support. It has subscales which distinctly capture the four dimensions of social support; the emotional and informational support (eight items), the concrete support (four items), the loving or the affectionate support (three items), the positive social interaction (three items), and one additional question (one item). (Khoun et al., 2018). Emotional support is being expressed through positive affect, empathetic understanding, and the openness of expressing feelings. Whereas informational support is perceived by caregivers whenever they are offered advice, information, guidance, or feedback for

problem resolution. While caregivers have access to tangible or instrumental support when material aid or behavioral assistance is made available for them. Meanwhile, Positive social interaction is experienced when they perceived that companionship or other persons are around them to do leisure and recreational activities, and Affectionate support is when love and affection is felt. Finally, another question was added to determine if another person is available to help the caregivers put their minds off things (Khoun et al., 2018).

There are two ways to determine the perceived level of social support of caregivers using the Medical Outcome Study Social Support Questionnaire. The first one is to calculate the overall average of the scores from the four subscales and the score from one additional item. The answer to individual questions is equivalent to a figure which could range from one to five. The number describes how frequently the kind of support is accessible to the caregiver in times they may need it. For instance, 1 means not at all, while 2 pertains to a little of the time, 3 is a given score for some of the time, 4 if it is perceived most of the time, and 5 when all of the time. The higher overall average score reflects greater social support, and the average results for every subscale depict the level of social support available for caregivers according to its kind or form. (Khoun et al., 2018). The second option, which is the chosen method for this study, is through converting of summed score to a scale of 0-100, with greater scores representing higher degree of perceived social support. The following formulas can be used to transform the scores to a scale of 0-100 (Sherbourne & Stewart, 1991):

$$100 \times \frac{(\text{Observed score} - \text{Minimum possible score})}{(\text{Maximum score} - \text{Minimum possible score})}$$

Or

$$100 \times \frac{(\text{Subscale score mean} - 1)}{(5 - 1 = 4)}$$

Past studies have determined that the scale has a good item variability and that the subscales have high correlation, good reliability, and construct validity. In addition, it was found to have an overall Chronbach's alpha of 0.97 for the entire scale, and alphas of 0.91 – 0.96 for the four subscales (Kim & Mazza, 2014). This instrument is in the public domain, and translation guidelines was carefully followed as instructed (Rand, Medical Outcomes Study Social Support Survey, n.d.).

Concurrently, the Zarit Burden Interview (ZBI), will also be used as a measurement tool to identify degree of subjective burden among caregivers in the study. It is a self-report inventory with 22 interview items. This tool mainly determines the burden because of functional behavioral impairments and the home care situation. The questions are subjective, to focus on the affective response of the caregiver. It is a 5-point Likert scale which can be scored from never to always present. The overall scores and interpretation serve as guides which can range from 0, meaning low burden; up to the score of 88, which means high burden. The tool also shown to have excellent internal consistency; Cronbach's alpha= 0.83 and 0.89 and a test-retest reliability of 0.71 (Goncalves-Pereira et al., 2017). The summated scores can be categorized into: (0-21) no burden, (21-40) mild to moderate burden, (41-60) moderate to severe burden, and (61-88) severe burden (Asuquo, Etowa, & Adejumo (2013). Permission was taken from the author to utilize the tool for the study.

Lastly, the Socio-demographic questionnaire form is used to collect personal demographic information from the patient and as well as their family carer, like: age, gender, employment status, educational attainment, and degree of relationship. The questionnaire can easily be answered by ticking the box along the answer that describes their demographic details accurately. This information gathered were used to describe

how the demographic characteristics of patients and family caregivers affect the level of their reported caregiver burden.

Data Collection Method and Procedure

From November 25, 2021, to January 18, 2022, a total of 82 patients' family caregivers are intended to be recruited for the study. One (1) Nurse Research Assistant was appointed to work hand in hand with barangay health workers in Barangay 395, 397, 398, 399, 400, 401, 402 and 403 in Zone 41, Sampaloc Manila, Philippines.

Total Population sampling, a type of Purposive sampling technique was used in the eight (8) Barangays to recruit participants for the study due to the small number of stroke survivors in the chosen community. Initially, a list of stroke survivors in the community was requested from Barangay Health Workers from the specified barangays. Then, family caregivers of stroke survivors in the list were approached by the Barangay Health Workers to determine if they are qualified to be participants. A set of inclusion criteria must be met before a family caregiver can be included in the study. For instance, they must be Filipino family caregivers above 18 years old, of stroke survivors living in the community of Sampaloc, Manila, Philippines. They must be willing to be a part of the study and must have full understanding of it, like its purpose, the potential risk, their benefits, any cost, reward, and the scope of their participation. Moreover, the patient must not have any non-stroke illness that would dominate the patient's care (example: Cancer or heart failure).

To those who met the criteria, the Barangay Health Workers who are knowledgeable about the study aided the potential respondents to fully understand the study. Afterwards, those who wanted to participate were assisted by the Barangay Health Workers to complete the written consent form and were asked to indicate their

cellular number and their preferred day and time for the 15–20-minute voice/phone interview. During this initial brief face-to-face conversation between the respondents and the Barangay Health Workers, it was ensured that hand washing, use of face shield, wearing of facemask, and social distancing were strictly practiced as a response to stop the spread of COVID-19 throughout the data collection.

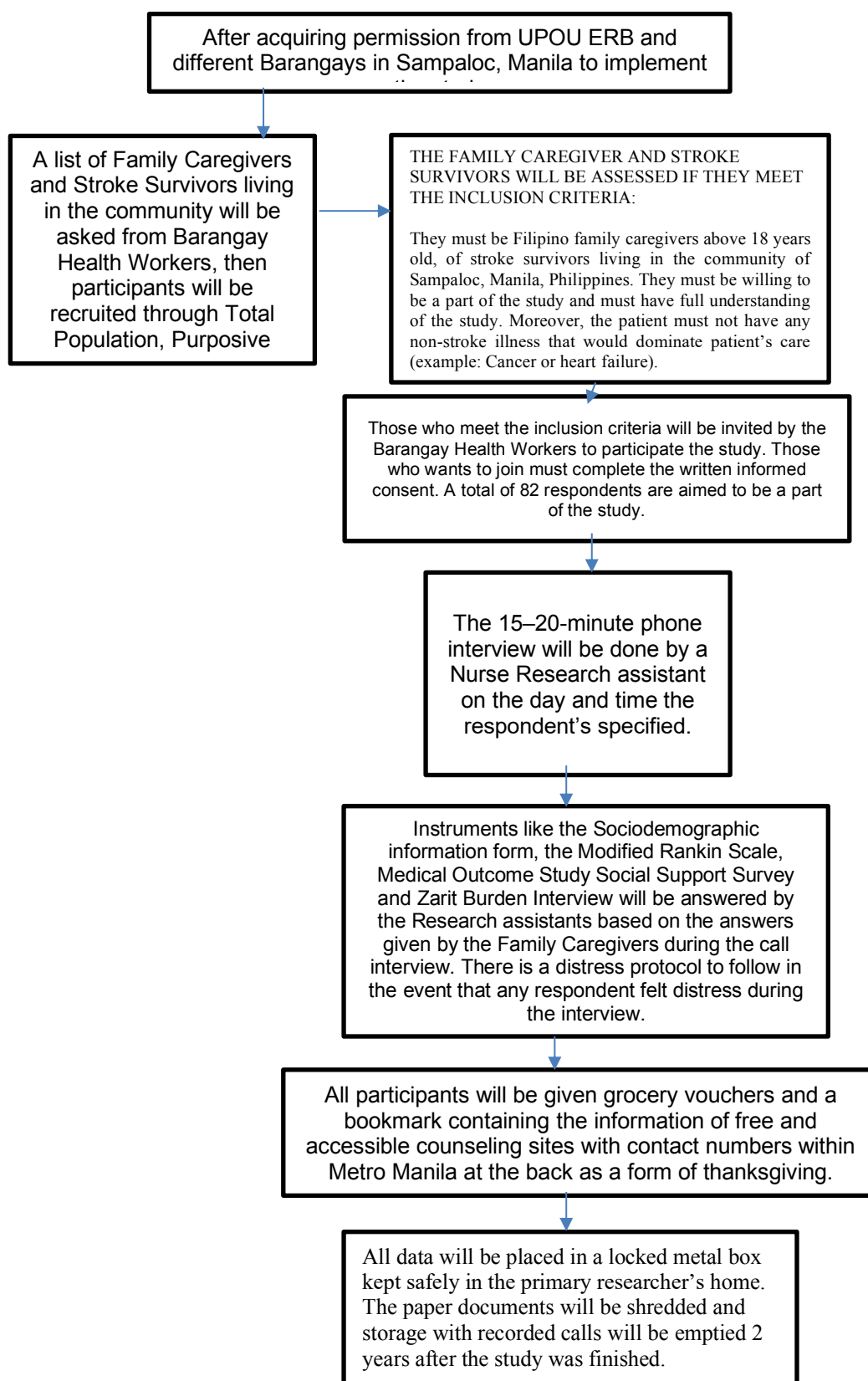
The completed consent form was handed to the Nurse Research Assistant, who interviewed the respondents through voice phone call on their specified day and time. The actual interview was done over the phone to minimize actual personal contact during data collection for infection control purposes. A cellular phone with a sim was exclusively used for the study. The Nurse Research Assistant received intensive training and instructions concerning the use of the questionnaires and tools such as the Medical Outcome Study Social Support Survey, Zarit Burden Interview, and the Modified Rankin Scale. He/she was also trained in the distress protocol that would be followed in case any of the research participants felt negative emotions or distress at any stage of the data collection. A written script was provided for the Research Assistant for the interview to be smooth, concise, complete, and organized. At the beginning of the call, the respondents must know that the call is securely recorded for documentation and quality enhancement purposes. An automatic call recorder application was installed for the purpose of securely saving phone interviews.

At first, patients were assessed for degree of disability and age. Then, the family caregivers were interviewed to determine their sociodemographic factors, perceived level of social support, and their degree of caregiver burden. Instruments like the Sociodemographic information form, the Modified Rankin Scale, Medical Outcome Study Social Support Survey and Zarit Burden Interview were answered by the

Research assistants based on the answers given by the Family Caregivers during the call interview. There is a distress protocol to follow if any respondent felt negative emotion or distress during the interview. It is possible to have more than one family caregiver participants per stroke survivor, for as long as the participants have different degree of relationship with the stroke survivor, and the interview is done in separate period. All participants were given grocery vouchers and a bookmark containing information of free and accessible counseling sites with contact numbers within Metro Manila at the back as a form of thanksgiving.

Finally, evaluation and comparison were done on the numerical data which reflects the effects of the variables to the degree of reported caregiver burden among Filipino family caregivers. All data, like the completed questionnaires and the data storage containing the recorded phone calls were secured in a metal box locked in privacy and confidentiality, which were kept safely in the primary researcher's home. The paper documents will be shredded and the data storage will be emptied two years after the study is finished.

Figure 3. Data Collection Framework



Ethical Considerations

It is a researcher's responsibility to fulfill several obligations to meet the stroke survivors, family caregivers and the healthcare institution's ethical standards, that is why this research study complied with University of the Philippines Open University's Ethical Review Board requirements for ethical clearance. Permission to implement the study was also acquired from four appointed Barangay Chairman leading the chosen Barangays in Sampaloc City. Their guidelines and COVID-19 infection control protocol were always considered from implementation until dissemination of the planned research study to make sure that the dignity, welfare, and safety of all participants are equally protected.

Alongside this, to protect every subject from harm, unnecessary risk, and mental or physical discomfort, prior to implementing the study the researcher together with the research assistants have attended a Stress Debriefing Seminar entitled "Psychological First Aid" facilitated by professional counselors of Amara Counseling and Training Center, to be well-equipped in conducting stress debriefing in the event that any participant felt distressed during data collection. Although none of the interview questions are intended to induce harm or emotional turmoil, in case any participant felt some negative emotions or feelings, a distress protocol is made available to be followed, which includes series of interventions to provide the distressed participant the emotional and mental support they need.

Permission to utilize and translate the research measurement tools were obtained from the author and authorized organizations. The tools they answered are in Tagalog translation, to ensure that the questions are conveyed in the most understandable form. The research assistants, who are responsible for collecting data, are ensured to receive

adequate training and supervision.

Moreover, before doing any assessment or interview, an informed consent must be signed by all participants after they have understood all aspects of the study to make sure that they are not forced or deceived to be recruited. The call to all study respondents is free-of-charge, indeed aside from allotting roughly 15-20 minutes for the phone interview, joining the study will not cost them anything. They must know that the call is recorded for quality and documentation reasons. Their right to withhold from participation at any time is also discussed with them. After the call, every participant received a grocery voucher and an inspirational bookmark containing the contact information of free and accessible counseling sites within Metro Manila to give them thanks for joining the study.

It is a commitment that the identity of stroke subjects and their family caregivers who joined the study were not divulged, without their permission. All data were secured in a metal safety box for documents locked in privacy and confidentiality in the primary researcher's home, these will be shredded and storage containing recorded phone interviews will be emptied two years after the study's completion.

Finally, it must not be taken aside that the population being observed is consists of Filipino citizens, the uniqueness of their values and beliefs must be carefully considered throughout the study for the respondents to be a great addition in achieving study's objectives and goals. All of these must be applied for the study to provide benefit not only for the patients involved, but also the rest, regardless of whether they participated in the study or not.

Plan for Data Analysis and Interpretation

The research study has to do with making predictions and inferences about a population through observations and analyses of samples, thus, it needs to go through a statistical procedure which is under the inferential category. Statistical Analyses will be done using the SPSS software.

1. Descriptive statistics will be used to determine the frequency and percentage of the demographic profile of the respondents.

2. To determine the level of caregiver burden, among family caregivers of stroke patients, descriptive mean will be used.

3. Descriptive mean will be used to determine the family members' perceived level of social support and its various forms like emotional, concrete, loving and positive interaction.

4. Pearson's Correlation Technique will be used to determine the significant relationship between family caregiver's degree of burden to their perceived level of social support and its various forms such as emotional, concrete, loving and positive interaction.

5. To determine the degree of relationship between the caregivers' burden to the age of the patient and caregiver, Pearson's Correlation Technique will also be used.

5.1 To identify any relationship between the caregivers' burden and caregivers' gender Pearson's correlation coefficient will be used.

5.2 To identify relationship between the caregivers' burden to the patient's factors like their severity of illness, and caregiver's factors like educational attainment, employment status, and relationship to the patient, Spearman's correlation analysis will be utilized.

6. To determine the significant relationship between the caregivers' perceived level of social support and its specific forms (emotional, concrete, loving and positive interaction) to the age of the patient and caregiver, Pearson's Correlation Technique will also be used.

6.1 To identify any relationship between the caregivers' perceived level of social support and its specific forms (emotional, concrete, loving and positive interaction) to the caregivers' gender, Pearson's correlation coefficient will be used.

6.2 To identify the relationship between the caregivers' perceived level of social support and its specific forms (emotional, concrete, loving and positive interaction) to the patient's factors like their severity of illness, and caregiver's factors like educational attainment, employment status, and relationship to the patient, Spearman's correlation analysis will be utilized.

Chapter IV

RESULTS AND DISCUSSIONS

Sociodemographic Profile of Caregivers

The sociodemographic data taken among the caregivers of stroke survivors in the chosen community in Sampaloc, Manila are the following: age, gender, educational attainment, employment status, and relationship to the patient.

Table 1

Sociodemographic Profile of Caregivers (N= 82)

CAREGIVER'S AGE	N	Percentage
18-24	8	9.8%
25-29	11	13.4%
30-34	12	14.6%
35-39	11	13.4%
40-44	8	9.8%
45-49	5	6.1%
50-54	6	7.3%
55-59	12	14.6%
60-64	4	4.9%
65-69	4	4.9%
70-74	1	1.2%
	Mean	Standard Deviation
CAREGIVER'S AGE	41.88	14.03
GENDER	N	Percentage
Male	19	23.2%
Female	63	76.8%
EDUCATIONAL ATTAINMENT	N	Percentage
None	0	0%
Elementary Undergraduate	0	0%
Elementary Graduate	1	1.2%
Highschool Undergraduate	8	9.8%
Highschool Graduate	35	42.7%
College Undergraduate	14	17.1%
College Graduate	24	29.3%
EMPLOYMENT STATUS	N	Percentage
Employed	25	30.5%
Unemployed	57	69.5%

DEGREE OF RELATIONSHIP TO THE PATIENT	N	PERCENTAGE
Spouse	23	28.0%
Son/Daughter	23	28.0%
Parent	1	1.2%
Sibling	7	8.5%
Distant Relative/ Others	28	34.1%

Analysis and Interpretation of Family Caregivers' Sociodemographic Characteristics

Caregivers' Age

The population of caregivers who participated in the study are within the age range of 18 to 72 years old. Based on the overall data, the average age of caregivers is 42 years old, with the standard deviation of 14.03.

The greatest number of caregivers are within the age group of 30 to 34, and 55 to 59 years old. Since most of the family caregivers belong to the prime working age group of 25-54 years (Index Mundi, 2021), this could directly or indirectly effect their ability to find employment and impact the socioeconomic status of the families with stroke survivors (Asiret & Kapucu, 2012); for family caregivers have to offer support and be physically around for the stroke survivors' safety and needs (Galanti, 2015). As a result, the stroke attack and its consequences are felt not only by the patient but by the Filipino family.

This result reflects younger average age of caregivers if compared to the mean age of caregivers cited from other literatures. For instance, a parallel study in Sweden has a mean caregivers' age of 63 years old (Olai, Borgquist, & Svardsudd, 2015), while a study in done in Turkey has a mean age of participating caregivers at 51.57 years old. In the United States average caregivers' age is 49 years old (National Alliance for Caregiving and AARP, (2015), whereas a result of a study in Greece has average

caregivers' age of 58 years old (Kavga et. al., 2021).

Caregivers' Gender

Among the 82 caregivers of stroke survivors, 63 are females, while 19 are males. The number of females outweighed the number of male respondents by more than three times.

This reflects the Filipino family structure and the corresponding obligations expected for the family members to carry-out. Traditionally, males are seen as the family's breadwinner, protector, and leader, while females are usually the ones managing the home, family budget and looking after each member (Leano, 2005). In Asian countries like the Philippines, the Immediate family members are hands on in giving them care and support in times of sickness (Bhattacharjee et al., 2012).

Similarly, other studies done in the past also have over two-third of female caregiver respondents (Olai et al., 2015; Tosun & Temel, 2017). This is aligned as well with another documented study featuring women as the usual caregivers in the Family. For they normally accept the caregiver role as they view it to be a moral responsibility (Diaz, Estévez, & Momeñe, 2019). In the United States, females are also seen to take the caregiver role more frequently at 60%, compared to just 40% of male caregivers (National Alliance for Caregiving and AARP, (2015).

Caregivers' Educational Attainment

Most of the caregivers interviewed for the study are high school graduates, with 35 in number, this group of respondents comprises 42.7% of the whole sample population. Secondly, there are 24 respondents who finished college level which allotted for 29.3%, followed by 14 college undergraduate caregivers which made up 17.1% of the entire

number. The minority of the sample population are comprised by 8 high school undergraduate (9.8%) and 1 elementary graduate (1.2%) caregivers.

The data collected depicts the difficulty in pursuing education in a third world country, like the Philippines. As a result of the great need to contribute for their family's needs, going to school is taken aside by most Filipinos. (Family, accommodation, studies, and jobs in the Philippines, n.d.). This could possibly explain why most of the respondents are only able to complete their secondary education.

Meanwhile, other studies reflect varying results for caregivers' educational attainment. A past study presented similar results having most caregivers with high school or university level of education (Kavga et. al., 2021), while caregivers in a different study were shown to have no education or having elementary level education (Tosun, & Temel, 2017). There was also a study focusing on burden and quality of life among informal caregivers who look after stroke patients at home in South-west Nigeria, which provided data that most of the study's caregiver respondents finished university or tertiary level education (Ogunlana et. al., 2014).

Caregivers' Employment Status

The data depicts that 57 out of 82 respondents were unemployed caregivers. They comprise 69.5% or more than two-thirds of the study participants, if compared to the 25 employed respondents which is just 30.5% of the overall population.

As a result of the stroke attack, roughly 50% of the stroke survivors are left with disabilities and require constant support from caregivers to accomplish their daily activities (Denham et al., 2018). However, most of the family caregivers who participated in the study belong to the prime working age group; hence it could be a factor behind the significantly larger number of unemployed caregivers if compared to

their employed counterpart.

On top of this, COVID-19 pandemic has been a threat not only on the Filipino's health but also their socioeconomic state. Since it started, varying degrees of lockdown was implemented all over the Philippines which resulted to the highest unemployment rate of around 17.6% in April 2020 (Business and Human Resource Center, 2021). The economic fallout brought by Pandemic persisted throughout the period of data collection, between November 25, 2021 – January 18, 2022, which also seen a 781% increase in cases recorded during the last two weeks of data collection (OCHA Services, 2022). This could therefore impact the ability of the family caregivers to get employed as they look after their stroke survivor family member.

Caregivers' Relationship to the Patient

The data gathered shows that 28 caregivers, which is the most number noted at 34.1% are distant relatives of the stroke survivors. Following closely are the 23 children and 23 spouses of stroke survivors, which similarly comprises 28%, or 56% cumulatively. On the other hand, the minority of the caregivers are siblings (8.5%) and a parent (1.2%) who look after stroke survivors.

This result describes the Filipinos' strong family ties and support system from the community (Understanding Filipino Culture, 2013). Many Filipino families strongly value closeness, cooperation, and unity with one another regardless of the type of situation they may have. Companionship is very essential among them (Leano, 2005). Hence, although typical Filipino families are consisting of a husband, wife, and children, it may also extend to include grandparents, and other relatives like cousins, aunts and uncles (Family, accommodation, studies and Jobs in Philippines, n.d.) who were reflected by the study results to be present in challenging situations like having an ill family member.

As recorded, the greatest number of caregivers who participated in the study consists by distant relatives (like grandchild, aunt, cousin).

The study also depicts the tender loving care within the traditional Filipino home, as noted the children and spouses of stroke survivors found to be the second and third most noted type of relationship among the study participants. The study reflects their commitment to fulfill their corresponding role, to show care, and to search for knowledge and action that improves well-being of their family members despite the challenges (Leano, 2005).

The usual age of Stroke occurrence in the Philippines is 50 years old and above (Mojica & Jerez-Cortez, 2010). Hence, although stroke could also happen to younger people, most of the documented stroke survivor's age is 50 years old and above, which possibly explains why there was only one (1) caregiver respondent who looks after his/her child who had stroke.

Sociodemographic Profile of Stroke Survivors

The sociodemographic data taken among the stroke survivors in the chosen community in Sampaloc, Manila are age and severity of illness as an effect of their stroke attack.

Table 2

Sociodemographic Profile of Stroke Survivors (N= 56)

STROKE SURVIVOR'S AGE	N	Percentage
18-24	0	0%
25-29	0	0%
30-34	1	1.8%
35-39	1	1.8%
40-44	5	8.9%
45-49	2	3.6%
50-54	8	14.4%

55-59	10	18%
60-64	11	19.8%
65-69	7	12.6%
70-74	7	12.6%
75-79	2	3.6%
80-84	1	1.8%
85-89	0	0%
90-94	1	1.8%
STROKE SURVIVOR'S AGE	Mean	Standard Deviation
	59.55	11.83

Analysis and Interpretation of Stroke Survivors' Sociodemographic Characteristics

Stroke Survivors' Age

The age of 56 stroke survivors spread evenly from 33 to 91 years old, with greater numbers seen between 50 to 72 years of age. Overall, the average age of stroke survivors living in the chosen community is 60 years old with a standard deviation of 11.83.

Although the mean and median age of stroke survivors is 60 years old, it is noticeable that there is an increase in number of stroke survivors ages 50 years old and above. The data collected also serves as evidence that stroke can now occur even at a younger age, as 16.1% among the stroke survivors had the attack even before the age of 50.

The study result is aligned with the typical age of Stroke occurrence in the Philippines which is 50 years old and above (Mojica, & Jerez-Cortez, 2010). However, this shows that compared to other countries stroke attack may occur among Filipinos at younger age. For instance, the 2015 statistics in the United States has reflected that in general the mean age of care recipients is around 69.4 years old (National Alliance for Caregiving and AARP, (2015).Whereas in the United Kingdom, where stroke is also categorized as the leading cause of disability and the third reason for mortality, the usual age of stroke occurrence among females is 73 years old, and 68 years old among males

(Rudd, 2018). Additionally, study done in South-west Nigeria also observed the prevalence of stroke to increase as age advances, making the stroke survivor's age closer in general (Ogunlana et al., 2014).

Table 3

Modified Ranking Scale Scores

Modified Ranking Scale Scores	N	Percentage
<i>*Based on Caregivers' Report (N=82)</i>		
0 (No disability)	0	0%
1 (No significant disability despite symptoms; able to carry out all usual duties and activities)	2	2.4%
2 (Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance)	19	23.2%
3 (Moderate disability; requiring some help, but able to walk without assistance)	24	29.3%
4 (Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance)	20	24.4%
5 (Severe disability; bedridden, incontinent and requiring constant nursing care and attention)	17	20.7%
6 (Dead)	0	0%

Modified Rankin Scale Scores

Modified Rankin Scale is the tool utilized to assess the level of functional disability among the stroke survivors, the score of zero (0) means no disability, while on the contrary, the score of 6 means (dead).

The data gathered depicts that most of the stroke survivors living within the chosen community were described by family caregivers to have a score 3 (Moderate disability; requiring some help, but able to walk without assistance) at 29.3%, followed closely with those who scored 4 (Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance) and scored 2 (Slight disability; unable to carry out all previous activities, but able to look after own affairs

without assistance), at 24.4% and 23.2%, respectively. Not too far from these are those who reported a score of 5, for observing severe disability on the stroke survivor, at 20.7%. Meanwhile, caregivers who reported a score of 1 become significantly noticeable as the least recorded figure on the graph.

The average score noted is 3.4, while the median score is 3.00, which depict that most of the participating stroke survivors has moderate degree of disability and would need some assistance from a caregiver. The result is in line with a finding that approximately fifty percent of all stroke survivors are left permanently disabled and in need of their family caregivers' support to fulfill their daily regular activities in the community (Denham et al., 2018). Although initially, stroke patients may require institutional care, once they are back at home, care will be typically rendered by family members (Greenwood, Pelone, & Hassenkamp, 2016). Therefore, it has been identified by past study that higher level of caregiver burden is experienced with greater degree of patient's disability and dependence (Asiret & Kapucu, 2013; Chuluunbaatar, Pu, & Chou, 2017). For instance, caregivers who look after bed bound stroke survivors reported higher level of burden (Hadi et al., 2016). This could be one of the factors behind the caregiver burden which exists in almost two-thirds of family caregivers who participated in this study.

Part 2. Caregiver Burden among Family Caregivers of Stroke Survivors

Zarit Burden Interview (ZBI) scores represent the subjective burden experienced by the family caregivers of stroke survivors in the chosen community where the study was done. The 5-point likert scale could have a total summed score between 0 as the least and 88 being the highest possible score. The higher the score the greater the burden felt and reported by the caregivers.

Table 4

Descriptive Statistics of Zarit Burden Scores (N= 82)

<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
	63	29.89	16.19
	<i>Mean (M)</i>	<i>Standard Deviation (SD)</i>	
Summed Total of Scores 2			
Item 1- Do you feel that your relative asks you for more help than he/she needs?	1.98		1.03
Item 2- Do you feel that because of the time you spend with your relative that you don't have enough time for yourself?	1.71		1.25
Item 3- Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work?	1.91		1.33
Item 4- Do you feel embarrassed over your relative's behavior?	.94		1.22
Item 5- Do you feel angry when you are around your relative?	.66		.89
Item 6- Do you feel like your relative currently affects your relationship with other family members or friends in a negative way?	.96		1.06
Item 7- Are you afraid of what the future holds for your relative?	1.96		1.47
Item 8- Do you feel your relative is dependent on you?	1.51		1.44
Item 9- Do you feel strained when you are around your relative?	1.77		1.22
Item 10- Do you feel your health suffered because of your involvement with your relative?	1.28		1.16
Item 11- Do you feel that you don't have as much privacy as you would like because of your relative?	.95		1.02
Item 12- Do you feel that your social life suffered because of your relative?	.74		1.09
Item 13- Do you feel uncomfortable about having friends over because of your relative?	.66		1.06
Item 14- Do you feel that your relative seems to expect you to take care of him/her, as if you were the only one, he/she could depend on?	1.60		1.55
Item 15- Do you feel that you don't have enough money to take care of your relative?	2.99		1.27
Item 16- Do you feel that you will be able to take care of your relative much longer?	.72		.98
Item 17- Do you feel like you have lost control of your life since your relative's illness?	.82		1.11

Item 18- Do you wish you could just leave the care of your relative to someone else?	.61	1.06
Item 19- Do you feel uncertain about what to do with your relative?	.93	1.13
Item 20- Do you feel like you should be doing more for your relative?	1.72	1.53
Item 21- Do you feel like you could do a better job in caring for your relative?	2.66	1.21
Item 22- Overall, how burdened do you feel in caring for your relative?	.93	1.48

The table above presents the Zarit Burden Interview scores gathered from the interview of 82 stroke survivor family caregivers which ranged evenly from 2 to 62. Based on the overall data, the average ZBI score is 30, while the standard deviation is 16.19.

Analysis:

As a result of stroke, around 50% of the stroke survivors living in the community require assistance from a caregiver (Denham et al., 2018). Based on the data gathered from the 82 respondents the average Modified Rankin Scale Score of the stroke survivors is 3 which reflect that most of them have moderate disability and may require some assistance; that could impact the caregivers' response on item 1 with a mean score of 1.98, item 8 which has a calculated mean of 1.51, and item 14 which has a mean of 1.60. For these items cover their perception on the level of dependence the stroke survivors have on them due to the functional disability caused by stroke.

As documented in past studies, negative consequences were associated with caregiver burden. For instance, a study done in Turkey, has determined that 86.4% out of 66 caregivers have felt that caregiving has negatively affected their overall health (Tosun, & Temel, 2017). Accordingly, health problems such as stress, sleep disorder (Usha, 2015) depression, and anxiety (Balhara, et. al., 2012) were reported. However, this is not always the case, as identified by the family caregivers of stroke survivors living in the chosen community. For the calculated mean for their response in Zarit Burden Interview item number 10 was 1.28, which suggests that the negative results of

caregiving in their health is rare.

Another consequence of caregiving that can be assessed using the Zarit Burden Interview scale is the disruption of the personal lives of the stroke survivors' caregivers (Lopez-Espuela et al., 2018). Interview items 2, 5, 9, 11 and 17 have focused especially on this aspect. At the height of Global Pandemic, when varying degrees of lockdown was implemented (Business and Human Resource Center, 2021), caregivers together with the stroke survivors must stay indoors for their safety, which could mean prolonged period of caregiving and less time for their own selves. Despite this possibility, the mean score among the five items suggests that the respondents are burdened about this area only rarely and not all the time. Interview item number 5, which has a mean score of only 0.66 is the least among the 22 items; whereas item number 17 has a mean score of 0.82 and interview item 11 has a mean of 0.95; while items 2 and 9 almost have equal calculated mean of 1.71 and 1.77, respectively.

Caregivers can also be at risk of experiencing burden due to abrupt and enormous role they take, (Hadi et al., 2016). A point to consider is that it may feel overwhelming for caregivers to function doing their usual roles on top of the roles that were previously assumed by the stroke survivor (Grant, Hunt, & Steadman, 2014). In relation to this, the caregivers' response for Zarit Burden Interview item number 3, has a mean score of 1.9, a result that indicates that family caregivers in the chosen community are sometimes burdened on the area of finding balance between their caregiver role and the other tasks expected of them to also fulfill.

In addition, caregiving can also impact the family members family and social relationships, as they can feel isolated due to their role (Asiret & Kapucu, 2012). They may also set aside participation in usual daily activities such as employment, hobbies, and social interactions (Camak, & Wolff, as cited in Kavga A., et al., 2021). In congruence with this, the data collected shows that for items 4, 6, 12, and 13 of the 22-

item Zarit Burden Scale which highlight the effect of caregiving on social relationships, the calculated mean is 0.8. This result is the second to the least mean result among the categories observed which depicts the influence of Filipino family's strong value for companionship and unity (Leano, 2005).

Moreover, concern about the future of the stroke survivor is also one of the things caregivers have in mind. This aspect is reflected by the computed mean for Zarit Burden Interview item number 7 which resulted to 1.96, which manifests the thoughts and worries caregiver respondents often have related to what the future may uphold for the stroke survivors. Indeed, caring for one another is central value in every Filipino homes. They show care through their commitment in searching for knowledge and action that improves well-being of their family members (Leano, 2005).

Of all the life changes secondary to caregiving the financial impact was seen to be the greatest concern among the Filipino family caregivers who joined the study. For caregiving may occur concurrently with financial problems due to the inability of caregivers to go to work (Asiret & Kapucu, 2012). This concern is truly magnified in the Philippines, because on top of the stroke-related concerns the family caregivers bear, healthcare is relatively private. This requires them to pay medical bills, hence stroke is truly a financial burden among lower and middle groups (Navarro et al., 2014). As observed this area (item number 15) has resulted in the highest mean of 2.99, which shows that most of the respondents have greater worry about the financial impact of stroke, if compared to the rest of the categories.

In contrast, the data collected presents the least calculated mean of 0.6 for the items in relation to the family members' thoughts or desire to release themselves from the caregiver role (item number 16 and 18). A point to consider behind the Family caregivers' resilience, is the coping mechanism used by Filipinos when faced with difficult situation called Burden bearing or "*Pagdadala*" in the Filipino language

(Decenteceo, 1999). Since caregiving for the Filipinos are learned even in the early years of their lives, sick family members are usually being looked after by one another (Sasa, 2012). Also, a related study revealed that almost all Filipino patient participants, have stories to share on how they were taken care of by their family while they were ill. The moments they had in the hospital reminded them primarily of their caring family (Sasa, 2012).

Overall, despite the negative consequences of caregiving, most of the family members still aim to improve the quality of care they provide to stroke survivors. According to the answers of 82 caregiver respondents in this study, their total mean of 1.77 for questions number 19, 20, and 21 reflects their realization and desire to improve the quality of care they render to their family stroke survivors. This is similarly the case with a study, that highlighted the caregivers' need for knowledge to take care of patients who survived stroke in various Rehabilitation centers in Bangladesh (Rahman et.al., 2018).

Summary of Zarit Burden Interview Analysis

Although the respondents' answers to the final question (item number 22) regarding the overall burden that the family members experience while looking after stroke survivors has resulted to one of the least means of 0.9, which entail that they are not burdened, the answers can be diverse as the standard deviation sits at 1.48 in a Likert questionnaire with just 0-5 scale.

In conclusion, when summated scores was categorized into: (0-21) no burden, (21-40) mild to moderate burden, (41-60) moderate to severe burden, and (61-88) severe burden. It can be observed that more than a third of the caregivers have zero to minimal degree of burden which is 37.8% of the overall number. Whereas, not far along are the figures recorded for those who experienced minimal to moderate burden which is 30.5%

and those who felt moderate to severe burden at 29.3%. Although only 2.4% of the caregivers verbalized severe burdens, the data collected is evidence that burden exists in almost two-third of family caregivers, which if taken aside could painfully lead to other negative healthcare consequences. For past research have concluded that high degree of caregiver burden impacts the mental and physical health of caregivers (Jaracz et al., 2015 & Hadi et al., 2016).

Part 3: Perceived Level of Social Support among Stroke Survivor Family Caregivers

Table 5

Descriptive Statistics of (MOSSS) Medical Outcome Study Social Support Survey Scores (N= 82)

	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Minimum</i>			
	95	75.54	11.54
MOSSS Summated Scores			
48			

Medical Outcome Study Social Support Survey is the chosen tool to determine the perceived level of social support of the family caregivers of Stroke survivors. The lowest score that can possibly be is 19, while the highest score can be as high as 95. The greater the score, the higher the level of perceived social support among the respondents. The tool is further categorized into subscales of social support such as emotional, concrete, loving, positive interaction and additional. In general, the total sum of all subscale scores (MOSSS) present the least score of 48 and highest score of 95, with the average score of 76 and standard deviation of 11.54.

Even though the data collection was done during the peak of Covid-19 Pandemic in the Philippines, despite the national lockdown, data presents an overall Medical Outcome Study Social Support Survey average score of 76, which is a scale level of 75 when transformed into a scale of 0-100.

One of the factors that may be seen behind the good level of social support perceived by the family caregivers who participated in the study, could be the inclination of Filipinos on social media. In average Filipinos spent 10 hours and 2 minutes daily, placing them on the top in terms of internet utilization worldwide (Aguilar, 2019). During the pandemic, social media became an accessible source of entertainment, information and a place of connection with other people (Kaushal, 2021).

Moreover, Filipinos are known to have very strong family ties and support system from the community (Understanding Filipino Culture, 2013). Despite the living circumstances many Filipino families embrace a strong sense of value on closeness, cooperation, and unity with one another regardless of the type of situation they may have. Companionship is very essential among Filipinos that they try to make time for one another no matter how busy (Leano, 2005).

All in all, despite the positive effects social support brings to the degree of burden among caregivers (Nayab, & Rukhsana, 2016). According to Greenwood, Pelone, & Hassenkamp, it has been found that the number of research done to assess the effect of supportive interventions to the burden felt by caregivers is limited (as cited in Tosun, & Temel, 2017), especially in developing countries, like the Philippine-setting (Kulshreshta et al., 2012). Hence, there is no study within the Philippines that may be used to compare with the study results.

Table 6

Descriptive Statistics of Emotional Subscale

<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
	40	30.59	5.92
THE EMOTIONAL SUBSCALE			
18			
Emotional Subscale Summated Scores.			

	<i>Mean (M)</i>	<i>Standard Deviation (SD)</i>
Item 1- Someone you can count on to listen to you when you need to talk.	4.04	1.13
Item 2- Someone to give you information to help you understand a situation	3.90	1.07
Item 3- Someone to confide in or talk to about yourself or your problems.	3.94	1.12
Item 4- Someone whose advise you really want	3.71	1.26
Item 5- Someone to share your most private worries and fears with	3.91	.98
Item 6- Someone to share your most private worries and fears with	3.51	1.44
Item 7- Someone to turn for suggestions about how to deal with a personal problem	3.51	1.16
Item 8- Someone who understands your problems.	4.06	.92

Analysis:

The emotional subscale summed scores ranged from 18 to 40, with the most frequent score of 30 and 34 being noted 6 times on all the interviews done, while in contrast, the lowest score of 18 is only noted once. The average score is 31, and standard deviation is 5.92. If converted to a scale of 0-100, the average score for Emotional support is at the scale level of 68.75. This type of support is being expressed through positive affect, empathetic understanding, and the openness of expressing feelings (Khoun et al., 2018).

Filipinos greatly cherish companionship, closeness, and cooperation. Despite having their hands full, they would make time to socialize (Leano, 2005). Amid the global pandemic, it may be impossible to physically connect with others, but with the help of social media, there is quick access to get information, acquire help, and express daily struggles to loved ones and friends (Kaushal, 2021). This may be the reason why in this study, the Filipino family members of stroke survivors have reported a satisfactory level of perceived emotional support.

Table 7

Descriptive Statistics of (MOSSS) Concrete Subscale

	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Minimum</i>			
	20	16.44	3.43
THE CONCRETE SUBSCALE			
Concrete Subscale Summated Scores.			
7			
	<i>Mean (M)</i>	<i>Standard Deviation (SD)</i>	
Item 9- Someone to help you if you were confined to bed.	4.02	.92	
Item 10- Someone to take you to the doctor if you needed it	4.27	1.14	
Item 11- Someone to prepare your meals if you were unable to do it yourself	4.20	1.01	
Item 12- Someone to help you with daily chores if you were sick.	3.95	.987	

Analysis:

The next subscale captured the concrete form of social support perceived by family caregivers, presents summated scores that ranged from 7 to 20. A quarter of all respondents reported a score of 20, which is also considered to be the mode score, while in contrary the score of 10 is only reported once. Overall, the average score is 16, and standard deviation is 3.43.

The average score for the concrete support perceived by the caregivers is at the scale level of 75, when converted to a 0-100 scale. Caregivers of stroke survivors reported this as their second most perceived type of support.

Concrete support is perceived by caregivers whenever they are offered advice, information, guidance or feedback for problem resolution. While caregivers have access to tangible or instrumental support when material aid or behavioral assistance is made available for them (Khounng et al., 2018).

There are few factors behind the good level of perceived social support among

Filipino family members, one of these is the way caregiving was taught to them even at the young age. Thus, in times of sickness family members look after each other (Sasa, 2012). Moreover, it was thought that since ancient times, Filipinos live in a society with extended but closely bonded family groups. Within this community, they strive together through coping mechanisms called burden bearing or “*Pagdadala*” and offering of support or “*Pag-aalalay*” in Tagalog language, to make life concerns easier to bear (Decenteceo, 1999).

Despite the daily struggles and uncertainties, these values and coping ways could have influenced the satisfactory level of concrete support the family caregiver participants perceived in this study.

Table 8

Descriptive Statistics of (MOSSS) Loving Subscale

	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
<i>Minimum</i>	15	13.84	1.72
THE LOVING SUBSCALE			
Loving Subscale Summated Scores. 7	<i>Mean (M)</i>	<i>Standard Deviation (SD)</i>	
Item 13- Someone who shows you love and affection	4.65	.73	
Item 14- Someone to love and make you feel wanted	4.68	.72	
Item 15- Someone who hugs you	4.51	.85	

Analysis

The loving subscale on the other hand, presents summed scores from 7 to 15, with the average of 14. The minimum score of 7 also has the fewest figure, while the vast majority of caregivers have the highest score of 15. The average score is 14, and standard deviation is 1.72.

This subscale is also referred to as affectionate support, it is felt by the caregivers when they know that others love and care for them. The average score from the

collected data is 15, which is at the level of 100 on a scale of 0-100. This is the highest form of support perceived by the family caregivers who participated in the study.

This result could have been influenced by the Filipinos' strong sense of value on closeness, cooperation and unity with one another. It is notable that they try to make time for each other regardless of the type of situation they may have (Leano, 2005). Likewise in study done in Luxembourg, stroke survivors and their primary family caregiver reported that they receive expression of sympathy, their social life have been the same, and that nothing has change with the strength of closeness they have with their friends even after the stroke attack (Bucki, Spitz, & Baumann, 2019).

Table 9

Descriptive Statistics of (MOSSS) Positive Interaction Subscale

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
POSITIVE INTERACTION SUBSCALE	6	15	11.07	3.15
Positive Interaction Subscale Summated Scores				
	<i>Mean (M)</i>		<i>Standard Deviation (SD)</i>	
Item 16- Someone to have a good time with	3.50		1.35	
Item 17- Someone to get together with for relaxation	3.72		1.19	
Item 18- Someone to do something enjoyable with	3.85		1.10	

Analysis:

The positive interaction subscale presents summed score figures between 6 to 15. The highest score: 15, is also the most frequently recorded score at 25%, while the score of 13 has the least which comprised just 2.4%. The median and mean score for this subscale is 11.

Positive social interaction is experienced when they perceive that companionship or other people are around them to do leisure and recreational activities. The average

of this subscale is at the level of 66.66, when interpreted in a 0-100 scale, the least compared to the rest of the support subscales observed in the study.

Although it is documented that Filipinos strongly value companionship (Leano, 2005), according to a past study, giving care could have negative effect socially. For one, it could make socialization more difficult, since leaving the patient on their own could provoke fear in their caregivers (Lurbe-Puerto, Leandro, & Baumann, 2012) as cited in Bucki, B., Spitz, E., Baumann, M., 2019). This could possibly explain the reason why the positive interaction subscale has the least recorded score among the rest of social support subscales observed for the family caregivers who participated in the study.

Table 10

<i>Descriptive Statistics of (MOSSS) Additional Subscale</i>				
	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>
ADDITIONAL SUBSCALE				
	1	5	3.87	1.13
Additional Subscale Summated Scores	<i>Mean (M)</i>		<i>Standard Deviation (SD)</i>	
Item 19- Someone to do things with to help you get your mind off things	3.87		1.13	

Analysis:

Finally, the addition subscale scores present figure in upward trajectory which started from 1, as the least, up to 5, as the highest score and the most frequent score. Meanwhile, the average and median score is 4.

The additional question determines if another person is available to help the caregivers put their minds off things (Khoun et al., 2018). The result has an average scale level of 75, when converted to a scale of 0-100. Among the rest of the social support subscales this is the second most perceived kind of support by the Caregivers of stroke survivors.

It was documented that caregiving could impact the family members family and social relationships, as they can feel isolated due to their role (Asiret & Kapucu, 2012). Hence, participation in usual daily activities such as employment, hobbies, and social interactions could be difficult (Camak & Wolff, as cited in Kavga A., et al., 2021) especially in the middle of global pandemic, when caregivers together with the stroke survivors have to stay indoors. However, Filipinos are considered the top users of social media, they spend significant amount of time daily on various social media, for example: Facebook, snapchat and twitter (Aguilar, K., 2019), a possible reason why most of the time Filipino family caregivers still perceived that someone is available to help them get their mind off things regardless of the challenges present.

Part 4: Relationship of the Caregiver's Perceived Level of Social Support to the Degree of Caregiver Burden

Table 11

Relationship of the Caregiver's Perceived Level of Social Support to the Degree of Caregiver Burden

Caregiver Burden (ZBI)	r	p-value
MOSSS	-.29	.007*
MOSSS Subscales		
MOSSS (Emotional)	-.19	.078
MOSSS (Concrete)	-.35	<.001*
MOSSS (Loving)	-.11	.326
MOSSS (Positive Interaction)	-.22	.051
MOSSS (Addition)	-.16	.160

Pearson's correlation through SPSS was utilized in order to analyze the relationship between the Zarit Burden Interview score (which reflect the degree of caregiver burden), and the Medical Outcome Study Social Support Survey scores (that

represents the level of caregivers perceived social support). The outcome indicates low negative correlation between the two variables, $r(80) = -.29$, $p = .007$, which fails to retain the null hypothesis, and suggests the negative relationship between the two variables. Therefore, the higher the perceived social support of family caregivers the lower their reported degree of caregiver burden, and the other way around.

Similarly, the relationship between Zarit Burden interview and the subscales of Medical Outcome Social Support Survey scores, were computed using the Spearman's correlation. One out of five subordinate scales of MOSSS, which is the Concrete subscale ($r(80) = -.35$, $p < .001$), also depicts a negative correlation with the Zarit Burden Interview scores. Which declines to support the null hypothesis and leads to finding that these variables are negatively related.

On the other hand, the reverse is true with the rest of the subscales, such as Emotional ($r(80) = -.19$, $p = .078$), Loving ($r(80) = -.11$, $p = .326$), Positive Interaction ($r(80) = -.22$, $p = .051$) and Addition ($r(80) = -.16$, $p = .160$) subscales which indicate statistical insignificant correlation with the caregiver burden. These results suggest that there is no relationship between the variables observed, therefore supporting the null hypothesis.

Analysis:

The study result suggests a negative relationship between the caregiver's level of social support to the degree of caregiver burden they experience. Several other studies done in other countries have depicted the positive effect of social support to the degree of burden felt by caregivers.

One among these is the study done in in some of Kuching Sarawak's Rehabilitation Centers with 18 participating caregivers, which revealed that lack of social support is associated to high burden, in addition to other aggravating factors such

as financial setbacks, multiple responsibilities, and behavioral changes of stroke patients (Rahman et.al., 2018). Another study with a primary objective of evaluating the relationship between presence of social support and coping on psychological impact of caring for stroke patients, among 90 family caregivers of stroke survivors in various hospitals in Pakistan, concluded that social support has a vital role in psychological distress experienced by stroke patient's family caregivers. Therefore, it reflects that caregivers' depression is negatively predicted by caregivers perceived social support from the family (Nayab, & Rukhsana, 2016).

Overall, an individual's social support is concluded to play an important role in the degree of psychological distress felt experienced by family caregivers of stroke patients (Nayab, & Rukhsana, 2016). However, there are limited studies concerning this in third world countries like the Philippines (Kulshreshta et al., 2012).

Part 5: Relationship of the Variables to the Degree of Caregiver Burden

Table 11

Relationship Between the Degree of Caregiver Burden to the Patient's Age

Caregiver Burden (ZBI)	r	p-value
Patient's Age	.20	.858

Analysis:

The relationship between the degree of caregiver burden to the patient's age is computed using Pearson's correlation through SPSS, with calculated $r(80) = .20$, $p = .858$. The finding favors the null hypothesis, which suggests that there is no statistically significant relationship between the variables.

However, the results of other studies which investigated patient's age as a predisposing factor to caregivers' burden varied greatly. An example was the cross-

sectional design study which was carried out through home visitation among 66 family caregivers of stroke patients living in Turkey has evaluated that caregiver burden is related to younger patient's age (Tosun, & Temel, 2017).

Meanwhile, other known studies have similarly found the effect of patient's age to be unrelated to the degree of burden felt by their caregivers, one of these is the study done among 150 pairs of Polish caregivers and stroke survivors who were assessed 6 months after hospital discharge (Jaracz et al., 2014). Additionally, a study in Turkey conducted among relatives of 70 stroke survivors also reported that patient's age is irrelevant with the burden experienced by their family members (Asiret & Kupucu, 2013).

Table 12

Relationship Between the Caregivers' Burden to the Caregiver's Age

Caregiver Burden (ZBI)	r	p-value
Caregiver's Age	.28	.010*

Analysis:

To assess the association between the degree of caregiver burden and caregivers' age, Pearson's correlation was also utilized through SPSS. Its result rejects the null hypothesis with Calculated $r(80) = .28$, $p = .010$, supporting the notion that the level of burden increases as the caregivers' age increases, for there is a positive relationship between the two variables observed.

If compared to other studies done in the past, this result is noncongruent with their findings. For one, a study done by Tosun & Temel (2017) has pointed out that caregiver's age has no correlation with the degree of caregiver burden; it was done among 66 family caregivers through home follow-up in Turkey. Similar result was also

noted in a study in Poland (Jaracz et al., 2014). In addition, a research study in Mumbai, India (Bhattacharjee et al., 2012) presented the same conclusion that caregiver's age was not related to increased caregiver burden.

Nonetheless, in sharp contrast to the result of this study, there was a study among 183 partners of stroke survivors in Netherlands, which concluded that higher caregiver burden was observed among younger caregivers (Kruithof, et.al., 2016).

Table 13

Relationship Between the Caregivers' Burden to the Caregiver's Gender

Caregiver Burden (ZBI)	r	p-value
Caregiver's Gender	.07	.508

Analysis:

Caregivers' gender was also observed in relation to the level of burden they experience as they look after stroke survivors. The data representing the variables were calculated using Pearson's correlation coefficient, which resulted with $r(80) = .07$, $p = .508$. This result reflects the negligible correlation between the variables, which leads to acceptance of null hypothesis that recommends caregiver's gender have no association to their level of burden.

Furthermore, there were also several past studies which assessed caregiver gender as a factor that could contribute to caregiver's burden after the stroke attack. A similar result was concluded by a study in Turkey that the burden of stroke survivor caregivers has no significant relationship to their gender (Tosun, & Temel, 2017).

In contrary to this, several past research suggest that being a female caregiver is a strong determinant of higher caregiver burden. An earlier report (Verma R, as cited

in Balhara et al, 2012) on a small population of stroke patients and caregiver dyads revealed the significant correlation between anxiety level of female caregivers and anxiety level of stroke patients. Moreover, another study in Mumbai, India among 111 caregivers of stroke patients has depicted that being a female predisposes caregivers to greater burden at 28 days, 6 months, and 1 year following the stroke event (Bhattacharjee et al., 2012).

Table 14

Relationship Between the Caregivers' Burden to the Patient's Severity of Illness

Caregiver Burden (ZBI)	r_s	p-value
Modified Rankin Scale Score	.08	.445

Analysis:

The degree of association between the level of caregiver burden and the severity of patient's illness was distinguished through Spearman's correlation. The analysis shows the statistically insignificant weak positive correlation, $r_s(80) = .08$, $p = .445$. Therefore, the null hypothesis was accepted, that these two variables are not associated.

This outcome is not similar to the result of other studies that assessed severity of illness behind the occurrence of caregiver burden. One study done among 150 caregivers and stroke survivors in a couple of outpatient clinics in Nigeria has presented a result that caregiver burden is associated with the degree of stroke survivor's disability. Specific predictors that contribute to the level of caregivers' burden were incontinence, psychological changes, greater disability after the attack, and more tasks required from the caregivers (Oni et al., 2019).

Moreover, a study shown that caregivers of patients with better ability and psychological health has significantly lesser degree of burden, and therefore was

suggestive that workload has positive correlation with the degree of caregiver burden (Zhu & Jiang, 2018). In addition, a study done among informal caregivers of stroke survivors who visits Stroke Transition Education and Prevention Clinics has also illustrated that Caregiver burden was strongly associated with stroke survivor physical disability (Achilike et al., 2019).

Truly, due to the great role they play, caregivers may feel overwhelmed doing their usual roles on top of the roles that were previously assumed by the stroke survivor (Grant, Hunt, & Steadman, 2014).

Table 15

Relationship Between the Caregivers' Burden and the Caregiver's Educational Attainment

Caregiver Burden (ZBI)	r_s	p-value
Caregiver's Educational Attainment	.03	.803

Analysis:

Through Spearman's correlation the association between the caregivers' degree of burden and educational attainment was analyzed. The calculation presents a weak and statistically insignificant relationship between the variables observed, $r_s(80) = .03$, $p = .803$. This result suggests that the null hypothesis, stating that there is no relationship between caregivers' burden and educational attainment, must be accepted.

In line with this, studies from different countries focusing on the effects of caregiver's education level on caregiver burden were also explored. Some results were shown to be consistent with the result of this study. Tosun & Temel (2017) for instance, has found out that caregiver's degree of burden has no relationship with their educational attainment, after data was taken and analyzed from 66 patients and caregiver pairs. In addition, a prospective population-based study (Bhattacharjee et al.,

2012) done with 111 caregiver respondents, has also supported that education level of caregivers was not related to caregiver stress and burden.

However, an opposite result was noted from a study done in Malaysia, which shown that caregivers with secondary and tertiary education reported lesser degree of caregiver burden (Hadi et al., 2016). Additionally, a study done in South Korea with 238 pairs of stroke survivors and caregivers has seen that caregivers' educational level is associated with caregivers' quality of life which in the study is closely linked with caregiver burden (Jeong et al., 2015).

Table 16

Relationship Between the Caregivers' Burden and the Caregiver's Employment Status

Caregiver Burden (ZBI)	r_s	p-value
Caregiver's Employment Status	.01	.913

Analysis:

Spearman's correlation was run to determine the relationship between the caregivers' employment status and the degree of burden they experience. The result suggests that there is a statistically insignificant relationship between the variables, $r_s(80) = .01$, $p = .913$. This prefers the acceptance of the null hypothesis stating that there is no relationship between the variables.

Moreover, other studies were done in the past to determine the impact of caregiver factors like employment status on their degree of caregiver burden, however, varying results were noted. There was a prospective longitudinal study that recruited 89 ischemic stroke patients admitted to a tertiary referral hospital in southern Taiwan and their caregivers, this study revealed that caregivers who had changes in employment status due to caregiving were more likely to have considerable strain (Jen- Wen Hung,

et.al., 2012).

Meanwhile, a study done in Mumbai, India with 111 caregiver participants (Bhattacharjee et al., 2012) and another one among informal caregivers of stroke survivors in Turkey (Tosun & Temel, 2017) ended in a conclusion that caregivers' employment status has no relationship with their degree of burden.

Table 17

Relationship Between the Caregivers' Burden and their Relationship with the Patient

Caregiver Burden (ZBI)	r_s	p-value
Relationship with the Patient	-.27	.015*

Analysis:

The study also assessed the association between the caregivers' relationship to the patient and the degree of burden they experience, through Spearman's correlation. As a result, the calculation shows negative correlation between the two variables, r_s (80) = -.27, $p = .015$. This supports the rejection of the null hypothesis and suggests that the closer the relationship between the caregiver and stroke survivor, the greater the burden experienced by the family caregivers.

Several research also aimed to investigate burden among family caregivers based on their relationship to the patient. Some studies have also observed similar result that association exists between the level of burden felt by the caregivers to the type of relationship they have with the stroke patient, for instance there was a study that concluded that the closer intimacy with the stroke survivors could cause more burden for the caregiver (Gbiri, Olawale, & Oghenekewelsaac, 2015). Additionally, another study done among partners of stroke survivors presented that high degree of burden, feelings of anxiety and depression were experienced by many respondents who take care of their partners (Kruithof, et.al., (2016).

However, some studies have stated otherwise, for one a study in India concluded that kinship to the patient is not a factor that affect the degree of burden that caregiver experience (Bhattacharjee et al., 2012). Likewise, documented research done in Turkey among informal caregivers of stroke survivors registered in Home Care Unit also supported the notion that burden felt by caregivers is not associated with the type of relationship they have with the stroke survivor.

Part 6: Relationship Between Variables and the Caregivers' Perceived Level of Social Support

Table 18

Relationship Between the Caregivers' Perceived Level of Social Support to the Patient's Age

Patient's Age	r	p-value
MOSSS	-.08	.440
MOSSS Subscales		
MOSSS (Emotional)	-.12	.279
MOSSS (Concrete)	-.00	.972
MOSSS (Loving)	-.06	.609
MOSSS (Positive Interaction)	-.04	.724
MOSSS (Addition)	-.07	.544

Analysis:

Pearson's correlation through SPSS was computed to determine the association between the level of social support as perceived by the caregivers (represented by Medical Outcome Study Social Support Survey score) to the patient's age. It reflects no relationship between the variables observed, $r(80) = -.08$, $p = .440$, which promotes the acceptance of the study's null hypothesis.

In a more detailed view, the relationship between patient's age and the subscales of Medical Outcome Social Support Survey scores, were also computed using the

Pearson's correlation. The results among the five subordinate scales of MOSSS, such as the Emotional $r(80) = -.12$, $p = .279$ Concrete $r(80) = -.00$, $p = .972$, the Loving $r(80) = .06$, $p = .609$, Positive Interaction $r(80) = -.04$, $p = .724$ and the Addition subscale $r(80) = -.07$, $p = .544$, all depict that there is no relationship between the variables observed, therefore supporting the null hypothesis.

However, contrary to this result, a study done to determine the social support, socio-economic status, health, and abuse among older people in seven European countries, has concluded that older age is conversely related with lower level of social support (Melchiorre, M.G., et al., 2013).

Table 19

Relationship Between the Caregivers' Perceived Level of Social Support to the Caregivers' Age

Caregiver's Age	r	p-value
MOSSS	-.32	.004*
MOSSS Subscales		
MOSSS (Emotional)	-.29	.007*
MOSSS (Concrete)	-.23	.035*
MOSSS (Loving)	-.06	.562
MOSSS (Positive Interaction)	-.32	.003*
MOSSS (Addition)	-.23	.040*

Analysis:

To analyze the relationship between the Medical Outcome Study Social Support Survey scores, that represents the level of caregivers perceived social support, and the caregivers' age, Pearson's correlation through SPSS was calculated. The result shows a low negative correlation between the two variables, $r(80) = -.32$, $p = .004$, and suggests that as the age of caregivers increases the lesser the level of social support they perceived. This finding therefore rejects the null hypothesis, for it suggests that there is a negative relationship between the two variables.

To assess the finer view, the relationship between the subscales of Medical Outcome Social Support Survey scores and caregivers' age were also computed using the Pearson's correlation. Among the subordinate scales of MOSSS, the Emotional ($r(80) = -.29, p = .007$), the Concrete ($r(80) = -.23, p = .035$), the Positive Interaction ($r(80) = -.32, p = .003$), and the Addition ($r(80) = -.23, p = .040$) scales also presents a low negative correlation with the caregivers' age. Similarly, these do not support the null hypothesis, and favor the notion that negative relationship exists between the variables observed.

On the contrary, only the Loving ($r(80) = -.06, p = .562$) subscale indicate statistically insignificant correlation with the caregivers' age. Therefore, supporting the null hypothesis which suggests that there is no relationship between these variables.

Previous studies support the notion that social support received by the caregivers can be related on several sociodemographic factors, and one of it is the caregiver's age. A cross-sectional data collection from seven European countries has suggested that advanced age is related to lower levels of levels of social support (Melchiorre, M.G., et al., 2013), a finding which is synonymous to the outcome observed on this study.

Table 20

Relationship Between the Caregivers' Perceived Level of Social Support to the Caregiver's Gender

Caregiver's Gender	r	p-value
MOSSS	-.02	.878
MOSSS Subscales		
MOSSS (Emotional)	-.02	.865
MOSSS (Concrete)	-.01	.960
MOSSS (Loving)	-.03	.767
MOSSS (Positive Interaction)	-.02	.830
MOSSS (Addition)	-.09	.415

Analysis:

The relationship between the level of social support as perceived by the caregivers (represented by Medical Outcome Study Social Support Survey score) and the caregivers' gender was also assessed. Pearson's Correlation Coefficient through SPSS was utilized to determine the association between these variables, which reflects no relationship among the observed data, $r(80) = -.02$, $p = .878$. Therefore, the null hypothesis of the study is accepted.

In a closer look, Pearson's Correlation Coefficient was also run to analyze the relationship between caregivers' gender and the subscales of Medical Outcome Social Support Survey scores. Similarly, all subordinate scales of MOSSS, such as the Emotional ($r(80) = -.02$, $p = .865$) Concrete ($r(80) = -.01$, $p = .960$), the Loving ($r(80) = .03$, $p = .767$), Positive Interaction ($r(80) = -.02$, $p = .830$) and the Addition subscale ($r(80) = -.09$, $p = .415$), depict no association between the variables, thus the null hypothesis is accepted.

This study result is not congruent to the results that were seen from past research. According to several studies the effect of caregiver's gender to the level of social support they receive could greatly vary. For instance, since women are normally accepting the caregiver role in the family as they unnoticeably seen it to be a moral responsibility, more females are affected with greater degree of burden and lower levels of perceived social support (Diaz, Estévez, & Momeñe, 2019). Whereas, a couple of studies have found an opposite result, and suggest that females experience and perceive higher level of social support as opposed to male caregivers (Kavga A., et. al., 2021; Melchiorre et al., 2013).

Table 21

Relationship Between the Caregivers' Perceived Level of Social Support to the Patient's Severity of Illness

Modified Rankin Scale Score	r_s	p-value
MOSSS	.10	.372
MOSSS Subscales		
MOSSS (Emotional)	.00	.999
MOSSS (Concrete)	.09	.407
MOSSS (Loving)	-.39	<.001*
MOSSS (Positive Interaction)	.08	.476
MOSSS (Addition)	.098	.382

Analysis:

The study also aims to distinguish the relationship between the Medical Outcome Study Social Support Survey scores, that represents the level of caregivers perceived social support, and the patients' severity of illness, and utilized Spearman's correlation through SPSS for the purpose. The result indicates low statistically insignificant correlation, $r_s(80) = .10$, $p = .372$, which accepts the null hypothesis that the variables are not related.

To give attention to finer details, the relationship between the subscales of Medical Outcome Social Support Survey scores and the patients' severity of illness were also analyzed using the Spearman's correlation. Most of the subordinate scales of MOSSS, such as the Emotional ($r_s(80) = -.00$, $p = .999$), the Concrete ($r_s(80) = .09$, $p = .407$), the Positive Interaction ($r_s(80) = .08$, $p = .476$), and the Addition ($r_s(80) = .09$, $p = .382$) also present statistically insignificant correlation with patients' severity of illness. These results also accept the null hypothesis, and likewise suggest that there is no relationship among the given variables.

Meanwhile, the contrary was observed when the Loving subscale was analyzed with the patients' severity of illness using Spearman's correlation, as the result suggests low positive relationship among the variables, ($r_s(80) = .39$, $p = <.001$). It therefore represents that the more severe the patient's illness the greater the MOSSS loving score reported by the caregivers, which rejects the null hypothesis.

Past study done among 90 family caregivers of stroke survivors in Pakistan has revealed that the degree of patient's stroke severity is negatively associated with the perceived level of social support the family members reported (Nayab & Rukhsana, 2016).

Table 22

Relationship Between the Caregivers' Perceived Level of Social Support to the Caregiver's Educational Attainment

Caregiver's Educational Attainment	r_s	p-value
MOSSS	-.18	.104
MOSSS Subscales		
MOSSS (Emotional)		
	-.11	.312
MOSSS (Concrete)	-.19	.084
MOSSS (Loving)	-.18	.109
MOSSS (Positive Interaction)	-.12	.298
MOSSS (Addition)	-.27	.013*

Analysis:

To examine any association between the Medical Outcome Study Social Support Survey scores, that represents the level of caregivers perceived social support, and the caregivers' educational attainment, Spearman's correlation through SPSS is utilized. The result indicates statistically insignificant correlation, $r_s(80) = -.18$, $p = .104$, which suggests that the variables have no relationship and that the null hypothesis must be retained.

A more detailed analysis was also done when the relationship between the subscales of Medical Outcome Social Support Survey scores and the patients' severity of illness were

calculated using the Spearman's correlation. Four out of five subordinate scales of MOSSS, such as the Emotional ($r_s(80) = -.11, p = .312$), the Concrete ($r_s(80) = -.19, p = .084$), the Loving ($r_s(80) = -.18, p = .109$), and the Positive Interaction ($r_s(80) = -.12, p = .298$) all present statistically insignificant correlation with the caregivers' educational attainment. These results also retain the null hypothesis that there is no relationship among the given variables.

However, using the same method, the opposite was suggested when the Addition subscale was analyzed with the caregivers' educational attainment. The result rejects the null hypothesis, as it indicates statistically significant moderate negative relationship among the variables, ($r_s(80) = -.27, p = .013$). Therefore, the more severe the patient's illness the lesser the MOSSS Addition score reported by the caregivers, and vice versa.

In relation to this, a cross-sectional data collection done in Lithuania, has suggested that higher educational attainment is associated with greater social interaction and involvement (as cited in Melchiorre, M.G., et al., 2013).

Table 23

Relationship Between the Caregivers' Perceived Level of Social Support to the Caregiver's Employment Status

Caregiver's Employment Status	r_s	p-value
MOSSS	.01	.932
MOSSS Subscales		
MOSSS (Emotional)	.09	.420
MOSSS (Concrete)	-.04	.731
MOSSS (Loving)	-.03	.803
MOSSS (Positive Interaction)	-.05	.635
MOSSS (Addition)	-.01	.938

Analysis:

The study also aims to determine the association between the level of social support as perceived by the caregivers (represented by Medical Outcome Study Social Support Survey score) to the caregiver's employment status. Spearman's correlation was computed to assess these variables, which result led to acceptance of the null hypothesis that suggests no relationship between the analyzed variables, ($r_s(80) = .01$, $p = .932$).

In the same manner, the relationship between the caregivers' employment status and the subscales of Medical Outcome Social Support Survey scores were also calculated through Spearman's correlation. In parallel, results on all specific subscales of MOSSS, such as the Emotional ($(r_s(80) = .09$, $p = .420$) Concrete ($(r_s(80) = -.04$, $p = .731$), the Loving ($(r_s(80) = -.03$, $p = .903$), Positive Interaction ($(r_s(80) = -.05$, $p = .635$) and the Addition subscale ($(r_s(80) = -.01$, $p = .938$), also depict no association between the variables; therefore support the acceptance of null hypothesis.

However, the result of this study is not like other studies done that assessed the effect of caregivers' employment status to their perceived level of social support. According to a study employed caregivers have access to higher levels of social support (Gallie, & Paugam, 2000, as cited in Melchiorre et al., 2013). Similarly, another study also concluded that people with higher level of employment status have of greater level of available social support (Stansfeld, Head, & Marmot, 1998 as cited in Melchiorre et al., 2013).

Table 24

Relationship Between the Caregivers' Perceived Level of Social Support to the Caregiver's Relationship with the Patient

Relationship with the Patient	r_s	p-value
MOSSS	.16	.156
MOSSS Subscales		
MOSSS (Emotional)	.10	.372
MOSSS (Concrete)	.14	.200
MOSSS (Loving)	.02	.894
MOSSS (Positive Interaction)	.12	.286
MOSSS (Addition)	.20	.067

Analysis:

Finally, the relationship between the Medical Outcome Study Social Support Survey scores, that represents the level of caregivers perceived social support, and the caregivers' relationship to the patient was also observed and computed using the Spearman's correlation through SPSS. The result indicates statistically insignificant and negligible correlation, ($r_s(80) = .16$, $p = .156$, which accepts the null hypothesis. Therefore, suggests that the given variables have no association.

Then, the relationship between the subscales of Medical Outcome Social Support Survey scores and the caregivers' relationship to the patient were also analyzed using the Spearman's correlation to see the finer aspects. Similarly, all the subordinate scales of MOSSS, such as the Emotional ($r_s(80) = .10$, $p = .372$), the Concrete ($r_s(80) = .14$, $p = .200$), the Loving ($r_s(80) = .02$, $p = .894$), the Positive Interaction ($r_s(80) = .11$, $p = .286$), and the addition subscale ($r_s(80) = .20$, $p = .067$), present statistically insignificant correlation with the caregivers' relationship to the patient. The findings likewise accept the null hypothesis and suggest that the given variables are not related.

Opposite to this, there was recorded evidence that supports the notion that level of caregiver's perceived social support can be related to several sociodemographic factors, like their degree or kind of relationship with others. For instance, married caregivers were seen to have greater available support (Van Dussen & Morgan, 2009 as cited in Melchiorre et al., 2013).

Chapter V

CONCLUSION AND RECOMMENDATIONS

Summary of Findings

Stroke or Cerebrovascular accident is a sudden loss of function as a result of blood circulation disruption towards the areas of the brain (Le Mone et al., 2015). It may happen suddenly, leaving more than half of the survivors with various degree of physical, psychosocial, and cognitive disabilities (Denham et al., 2018). Due to the abrupt nature of stroke (Le Mone et al., 2015), family members of stroke survivors are usually caught unprepared and overwhelmed (Moon, 2017), because of the enormous role they play, caregivers can be at risk of experiencing burden (Hadi et al., 2016).

Caregiver burden is the degree of difficulty, strain or negative consequences felt by the family member because of looking after the stroke patient (Stucki & Mulvey, 2000). Different studies were done worldwide regarding the physical and psychological burden felt by the family caregivers as they provide care for stroke survivors. However, limited studies are available in third world countries, like the Philippines (Kulshreshta et al., 2012); thus, this study is done.

The objective of the study is to determine the family caregivers' level of caregiver burden, perceived level of social support, and the relationship between degree of burden and the perceived level of social support among the family members of stroke survivors. The study also wants to assess the relationship between the caregiver burden experienced by the family members of stroke survivors and the following factors: patient's severity of illness, patient's age, caregiver's age, caregiver's gender, and caregiver's relationship to the patient. Moreover, the study also aims to determine the relationship between the caregivers' perceived level of social support and the following

variables: patient's severity of illness, patient's age, caregiver's age, caregiver's gender, and caregiver's relationship to the patient.

To find out the results, the following null hypotheses were tested using 0.05 level of significance: 1.) There is no significant relationship between caregiver burden and the perceived level of social support among family members; 2.) There is no relationship between the caregiver burden experienced by the family members of stroke survivors and factors such as patient's severity of illness, patient's age, caregiver's age, caregiver's gender, and caregiver's relationship to the patient; 3.) There is no relationship between the caregivers' perceived level of social support and the following variables: patient's severity of illness, patient's age, caregiver's age, caregiver's gender, and caregiver's relationship to the patient.

Total Population sampling technique is utilized to have a total sample of eighty-two (82) family caregivers who live in the chosen communities in Manila, Philippines. The research design chosen for the quantitative study is cross-sectional, non-experimental descriptive correlational design. Data collection was done through 15–20-minute phone interview done by a single Registered Nurse-Research Assistant, using the following survey questionnaires: Caregiver's Sociodemographic Form, Patient's Sociodemographic Form, The Modified Rankin Scale, The Zarit Burden Interview Form (Tagalog version) and The Medical Outcome Study Social Support Survey Form (Tagalog version). The statistical treatment used are: Descriptive mean, Pearson's, and Spearman's Correlation Technique.

Findings:

A total of ninety-nine (99) respondents were invited to join the study, however a refusal rate of 16.8% was seen. The (17) seventeen invited respondents opted-out due

to the following reasons: 1.) One respondent has provided a wrong number, 2.) One caregiver was sick, and was unable to take the call, 3.) Ten caregivers' mobile phones were unattended. 4.) Two caregivers verbalized that the stroke survivor they were looking after has died shortly before the call, 5.) One caregiver mentioned that the patient has other condition aside from stroke (heart problem) 6.) One caregiver has provided a landline number, 7.) One caregiver is not available. Thus, only eighty-two (82) participated in the study, 63 among them are females, and the remaining 19 are males. They are family caregivers of stroke survivors living among eight (8) Barangays in Zone 41, Sampaloc City, Manila. Participants were invited by their corresponding Barangay Health Workers. Then, after participants' thorough understanding of the study and completing of the informed consent, they were interviewed via phone by a single Registered Nurse Research Assistant. The patient's stroke severity was determined using the Modified Rankin Scale. Participants degree of Caregiver burden was assessed using the 22-question Zarit Burden Scale, while their perceived level of Social Support was assessed using the Medical Outcome Study Social Support Survey. Both Caregivers and Stroke survivors' sociodemographic details were taken.

The collected data show that the population of caregivers who participated in the study are within the age range of 18 to 72 years old, with the average age 42 years. Among the 82 respondents, more than half of them are females, and significantly most are unemployed. It is also noted that the greater number of caregivers are distant relatives of the stroke survivors and are usually high school graduates. Meanwhile, the stroke survivors in the study are 60 years old in average, with disease severity mostly ranging between slight to severe disability.

The degree of caregiver burden represented by the Zarit Burden Interview score reflects an average score of 30 which can be classified as mild to moderate burden. It

is also important to recognize that almost two-thirds of the population verbalized feeling mild to severe degree of burden. Concurrently, their level of perceived social support was also determined, using the tool called Medical Outcome Study Social Support Survey. The result presents a good level of social support among family caregivers with an average score of 76, which can be categorized at the scale level of 75, when converted to a 0-100 scale.

The data collected from November 25, 2021 – January 18, 2022, was assessed for presence of correlation:

1. There is a negative correlation between caregiver burden and the perceived level of social support among family members, $r(80) = -.29$, $p = .007^*$. It means the higher the perceived social support of family caregivers the lower their reported degree of caregiver burden, and the other way around, therefore the null hypothesis is rejected.
2. There is a positive relationship noted between the Caregiver burden and the caregiver's age ($r(80) = .28$, $p = .010^*$), which suggests rejecting the null hypothesis, for the level of burden increases as the caregivers' age increases.

The data also presents a negative relationship between caregiver burden and degree relationship of the caregiver and stroke survivors ($r_s(80) = -.27$, $p = .015^*$), which reflects that the closer the relationship between the caregiver and stroke survivor, the greater the burden experienced by the family caregivers.

Whereas other factors observed, such as patient's age ($r(80) = .20$, $p = .858$), patient's severity of illness ($r_s(80) = .08$, $p = .445$), caregiver's gender ($r(80) = .07$, $p = .508$), educational attainment ($r_s(80) = .03$, $p = .803$) and employment status ($r_s(80) = .01$, $p = .913$) were not seen to have enough statistical evidence of correlation with caregiver burden.

3. The study has seen a negative relationship between the level of perceived social support, and most of its subscales to the caregiver's age ($r(80) = -.32, p = .004^*$), and suggests that as the age of caregivers increase the lesser the level of social support they perceived. This finding therefore rejects the null hypothesis.

Meanwhile, there was not enough statistical evidence to correlate caregivers' level of perceived social support with most of the factors assessed in the study, such as: patient's age ($r(80) = -.08, p = .440$), patient's severity of illness ($r_s(80) = .10, p = .372$), caregiver's gender ($r = -.02, p = .878$), educational attainment ($r_s(80) = -.18, p = .104$), employment status ($r_s(80) = .01, p = .932$) and degree of relationship with the patient ($r_s(80) = .16, p = .156$).

Conclusion

Despite the on-going global Pandemic when national lockdown and strict measures against social gathering were imposed, the study presents that Filipino family caregiver participants still perceived good level of social support. However, it is worth recording that even though good social support has shown to have reverse effect on the degree of burden, significant number of family caregivers still verbalize experience of mild to severe degree of burden.

Although Filipinos are known for their resilience, strong family ties and support system from the community; caregiver burden could still be felt out of the encompassing challenges of looking after a stroke survivor. Caregiver burden is truly a complex and multifaceted healthcare concern, but by conducting this study, its association with several variables was unveiled, such as the negative correlation it has with social support; the greater burden as care givers' age advance; and the higher degree of burden for caregivers with closer relationship to stroke survivors. Moreover, negative relationship between the level of perceived social support, and most of its subscales to

the caregiver's age was also seen.

Truly, this information is essential for healthcare professionals to help family caregivers reduce their burden which may potentially lead to other negative health care consequences if taken aside. A possible solution to this is the problem-focused approach in coping as stated in the Cognitive Theory of Psychological Stress and Coping by Lazarus and Folkman, which includes giving importance to accessible social support. Few steps to consider are prompt identification of family caregivers who are at risk of caregiver burden, illumination of the great role community nursing plays in the overall improvement of family health, and implementation of community health programs aim to support family members as they provide care to the survivors of stroke.

Recommendations

The following are the recommendations obtained from the study's findings and implications:

Nursing practice:

1. For nurses to aspire wider understanding about the reality of caregiver burden that family members of stroke patients may experience, on top of the devastating health impairment patients suffer after a stroke attack.
2. For nurses to be able to provide families with health teachings aiming to impart appropriate intervention and strategies that will support and prepare the family members as they look after the stroke patient at home.

Nursing Education

1. For Nursing Educators to facilitate helpful trainings like distress management and/or psychological first aid seminars, in order for the nurses to be armed with effective

intervention, information, emotional and mental support in the event of encountering a distressed caregiver both in and out of the hospital setting.

2. For Nursing Educators to help enhance health care professionals' ability to identify individuals who may be more susceptible to experiencing caregiver burden especially after they continue their lives in the community together with stroke survivors.

Nursing research:

1. For future researchers to study about the impact of social support and other factors to the degree of burden felt by the patient's family caregivers without the direct effect of Covid-19 Pandemic, as it may have directly or indirectly affect the response made by the family caregivers during the peak of global pandemic when the data collection was done.
2. For further studies to be done to address the lacking literature about the association of caregiver burden among family caregivers, perceived level of social support and other factors not covered by this study such as: income level, degree of readiness, length of caregiving, number of caregivers per stroke survivor, duration of illness, and quality of health among family caregivers.
3. For researchers to make a similar study but within the acute hospital setting, where the patients and their family members first encounter the need for abrupt adaptation to the immense role changes brought by the stroke attack.

Community Health Officers:

1. For Community Health Officers to create a list of stroke survivors and family caregivers in the community who may be at greater risk for caregiver burden and may require thorough health teachings and further interventions to get ready for their role as caregivers in the community.

2. For Community Health Officers to improve availability of social support accessible for the Filipino family members who take care of stroke survivors in the community, like conducting Barangay Health Programs that facilitate information dissemination, preparation, and skills enhancement among the family members of stroke survivors.

Families and Patients:

1. For family members of stroke patients to have knowledge about their susceptibility to experience caregiver burden in order for it to be addressed timely.
2. For family members of stroke survivors to be aware of available and accessible support that can be found within the community like free counseling services and various health programs available in their Barangay Health Centers that aim to recognize their great role as caregivers and support them to effectively assist the stroke patients towards better health and recovery.

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Appendices

APPENDIX A

Questionnaire/Tool for Data Collection

DEMOGRAPIKONG IMPORMASYON NG PASYENTE

PANGALAN	
EDAD	

DEMOGRAPIKONG IMPORMASYON NG KAPAMILYANG TAGAPAG-ALAGA NG PASYENTE

PANGALAN	
KASARIAN	(LAGYAN NG TSEK ANG IYONG SAGOT) LALAKI 1 ☐ BABAE 2 ☐
EDAD	
PINAKA MATAAS NA ANTAS EDUKASYONG NAKAMIT	WALA..... 1 ☐ NASA ELEMENTARYA 2 ☐ TAPOS NG ELEMENTARYA..... 3 ☐ NASA HAYSKUL..... 4 ☐ TAPOS NG HAYSKUL..... 5 ☐ NASA KOLEHIYO..... 6 ☐ TAPOS NG KOLEHIYO..... 7 ☐
KATAYUAN SA PAGTATRABAHO	MAY TRABAHO..... 1 ☐ WALANG TRABAHO..... 2 ☐
REALSYON SA PASYENTE	ASAWA..... 1 ☐ ANAK..... 2 ☐ KAPATID..... 3 ☐ MAGULANG..... 4 ☐ IBA o MALAYONG KAMAG-ANAK..... 5 ☐

THE MODIFIED RANKING SCALE

THE MODIFIED RANKIN SCALE	
PATIENT'S NAME: _____ DATE: _____ RATER NAME: _____	
0	No disability
1	No significant disability despite symptoms; able to carry out all usual duties and activities
2	Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance
3	Moderate disability; requiring some help, but able to walk without assistance
4	Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
5	Severe disability; bedridden, incontinent and requiring constant nursing care and attention
6	Dead

TOTAL (0–6): _____

Reference: The Modified Rankin Scale questionnaire is public domain, and so permission is not needed to use it.
 Clinical Data Interchange Standards Consortium. Modified Rankin Scale (MRS). Retrieved from: <https://www.cdisc.org/system/files/members/standard/foundational/qrs/MRS%20v1%20Annotated%20CRF.pdf> Accessed on: February 2019

ANG SURVEY PARA SA PANLIPUNANG SUPORTA NG PAG-AARAL SA MEDIKAL NA KINALABASAN

PANGALAN:

PETSA:

SUPPORTANG EMOSYONAL/IMPORMASYON	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong maaasahan mong pakinggan ka kung kailangan mong makipag-usap					
Taong magbibigay sa iyo ng impormasyon para matulungan kang maunawaan ang sitwasyon					
Taong magbibigay sa iyo ng mabuting payo tungkol sa krisis					
Taong mapagtatapatan o makakausap tungkol sa sarili mo o mga problema mo					
Taong ang payo ay talagang gusto mo					
Taong ibabahagi ang pinakapribado mong inaalala at kinatatakutan					
Taong madudulugan para sa mga suhestiyon tungkol sa kung paano makakayanan ang personal na problema					
Taong nakakaunawa sa mga problema mo					

KONKRETONG SUPORTA	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong tutulong sa iyo kung ikaw ay nasa kama na lang					
Taong magdadala sa iyo sa doktor kung kailangan mo					
Taong maghahanda ng mga pagkain mo kung hindi mo ito mismo magawa					
Taong tutulong sa mga pang-araw-araw na gawain kung may sakit ka					

MAPAGMAHAL NA SUPORTA	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong nagpapakita sa iyo ng pag-ibig at pagmamahal					

Taong mamahalin at pararamdam sa iyo na gusto ka
Taong yumayakap sa iyo

POSITIBONG PANLIPUNANG INTERAKSIYON	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong makakasama para mag-good time					
Taong makakasama para mag-relax					
Taong makakasama para gumawa ng bagay na kasiya-siya					

KARAGDAGANG BAGAY	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong makakasamang gumawa ng mga bagay para matulungan kang makalimot sa bagay-bagay					

Sanggunian: AngSurvey para sa Panlipunang Suporta ng Pag-aaral sa Medikal na Kinalabasan ay pampublikong domain, at kaya hindi kailangan ng pahintulot na gamitin ito. **Panlipunang Suportang Survey na Instrumento. Rand Health Care.**
https://www.rand.org/health/surveys_tools/mos/social-support/survey-instrument.html.
 In-access noong Nobyembre 2, 2018

TALATANUNGAN UKOL SA NARARAMDAMANG PASANIN NG MGA TAGAPANGALAGA NG PAMILYA

MGA TAGUBILIN: Ang sumusunod ay isang listahan ng mga katanungan, na naglalarawan sa nararamdaman minsan ng mga tao kapag sila'y nangangalaga ng ibang tao. Pagkatapos ng bawat katanungan, sabihin kung gaano mo kadalas ito nararamdaman; hindi kailanman, bihira, paminsan-minsan, medyo madalas, o halos lagi. Walang mga tama o maling sagot.

PANGALAN: _____ PETA: _____

1. Palagay mo ba na mas maraming hinihinging tulong ang iyong kamag-anak sa iyo kaysa sa kinakailangan niya?
 0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi
2. Palagay mo ba na dahil sa oras na inilalaan mo kasama ng iyong kamag-anak ay wala ka nang sapat na oras para sa iyong sarili?
 0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi
3. Ikaw ba ay nakakaramdam ng stress dahil inaalagaan mo ang iyong kamag-anak at sinusubukan mong tuparin ang ibang mga responsibilidad para sa iyong pamilya o trabaho?
 0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi
4. Nakakaramdam ka ba ng hiya dahil sa kinikilos ng iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

5. Nakakaramdam ka ba ng galit kapag kasama mo ang iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

6. Nararamdaman mo bang may negatibong epekto sa ngayon ang iyong kamag-anak sa iyong relasyon sa iba mo pang kapamilya o kaibigan?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

7. Ikaw ba ay natatakot sa kinabukasan ng iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

8. Nararamdaman mo bang nakaasa ang iyong kamag-anak sa iyo?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

9. Nakakaramdam ka ba ng pagkabahala kapag kasama mo ang iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

10. Nararamdaman mo ba na sumamâ ang kondisyon ng iyong kalusugan dahil tinutulungan mo ang iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

11. Nararamdaman mo ba na nagkulang na ang iyong pagka-pribado dahil sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

12. Nararamdaman mo ba na nasira ang iyong pakikisalamuha sa iba (social life) dahil sa pangangalaga sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

13. Naiilang ka ba kapag nang-iimbita ka ng mga kaibigan, dahil sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

14. Nararamdaman mo ba na inaasahan ng iyong kamag-anak na alagaan mo siya, na parang wala na siyang maaasahan bukod sa iyo?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

15. Nararamdaman mo ba na wala kang sapat na pera para pangalagaan ang iyong kamag-anak at para sa iba mo pang mga gastusin?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

16. Nararamdaman mo ba na hindi mo na kayang maalagaan ang iyong kamag-anak nang mas matagal pa?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

17. Nararamdaman mo ba na nawawalan ka ng kontrol sa iyong buhay mula nang magkasakit ang iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

18. Ninanais mo bang ipaubaya na lang sa ibang tao ang pangangalaga sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

19. Nararamdaman mo ba ang kawalang-katiyakan sa kung ano ang gagawin sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

20. Nararamdaman mo ba na dapat higit pa ang iyong ginagawa para sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

21. Nararamdaman mo ba na maaaring mapabuti mo pa ang pangangalaga sa iyong kamag-anak?

0. Hindi kailanman 1. Bihira 2. Minsan 3. Medyo Madalas 4. Halos Lagi

22. Sa pangkalahatan, gaano kabigat na pasanin ang pangangalaga sa iyong kamag-anak?

0. Wala, hindi kailanman 1. Bahagya 2. Katamtaman 3. Medyo 4. Labis-labis

Reference: ZBI-22- Philippines/Tagalog [Version of 23 Aug 16 - Mapi. ID055991 / ZBI-22_AU1.0_tgl-PH.doc.] Contact information and Permission to use: MAPI Research Trust, Lyon, France. Retrieved from: <https://eprovide.mapi-trust.org>

APPENDIX B

Scripts

SCRIPT IN SECURING INFORMED CONSENT USED BY BARANGAY HEALTH WORKERS

Magandang araw po Ginoo/Ginang/Binibini, ako po si _____, nagtatrabaho bilang Barangay Health Worker mula sa Barangay _____, Metro Manila. Kayo po ay nais naming imbitahan na makilahok sa isang pag-aaral na pinamagatang Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Sampaloc, Manila, Philippines.

Dahil nakapasa kayo sa mga kondisyong kailangan upang makasali sa nasabing pag-aaral, kagaya ng pagkakaroon ng kapamilya na nagkaroon ng atake ng stroke at kasalukuyang namumuhay sa kumunidad/ Lungsod ng Manila. Ang pag-aaral na ito ay bilang katugunan sa pagkumpleto ng proyekto sa ilalim ng pangangasiwa ng mga propesor mula sa University of the Philippines Open University.

Kamusta po kayo? Maari ko po bang hingan kayo ng ilang minuto upang ibigay sa inyo ang buong detalye ng pag-aaral? (Kung papayagan ng inimbitahan, ipapaliwanag ng Barangay Health Worker and nilalaman ng INFORMED CONSENT.)

Kung nanaisin po ninyo na sumali sa pag-aaral, kayo po nararapat na lumagda sa Informed Consent, at magbigay ng petsa at oras kung kailan nila nais gawin ang pagtawag sa inyo sa telepono. Kayo po ay nararapat na maglaan ng 15-20 minuto para sa interview.

Kami po ay lubos na nagpapasalamat sa paglahok ninyo sa pagaaral. Matapos ang interview kayo po ay makakatanggap ng grocery voucher at bookmark na naglalaman ng mga detalye at numero ng mga libreng counselling services sa Metro Manila, upang makatulong kung sakaling mangangailangan kayo ng suportang emosyonal at mental, bilang pasasalamat sa inyong paglahok.

SCRIPT FOR PHONE INTERVIEW

Magandang araw po Ginoo/Ginang/Binibini, ako po si _____, isang Rehistradong Nurse. Kayo po ay aking tinawagan sapagkat kayo ay nais na makilahok sa isang pag-aaral na pinamagatang Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Sampaloc, Manila, Philippines. Kamusta po kayo? Maaari ko po bang hingin ang inyong 15-20 minuto para sa mga katanungan kaugnay ng pag-aaral.

Bilang isang maikling paalala, hindi layunin ng anumang tanong ang magdulot ng kapahamakan o kaguluhang emosyonal, kaya lubos na pinapalagay na walang pinsala o kapahamakang dulot ang pagsali sa pag-aaral na ito. Ngunit, kung makakaramdam ng negatibong emosyon dulot ng pagsagot sa mga katanungan. Hinihikayat naming na ito ay banggitin kaagad. Maaaring tumigil sa paglahok sa pag-aaral ano mang oras gustuhin, at kung inyong nanaisin mayroong nakalaang panuntunan upang mabigyan kayo ng kaukulang suportang emosyonal at mental na libreng makakamit sa lungsod ng Manila. Ang tawag na ito ay naka-record, para sa dokumentasyon at pagpapabuti ng kalidad.

Maari po ba na tayo ay magsimula na? (Kung makakakuha ng pahintulot na magpatuloy ang Nurse Research Assistant ay magsisimula na kumuha ng mga detalye base sa mga questionnaires: kagaya ng Sociodemographic information form, the Modified Rankin Scale, Medical Outcome Study Social Support Survey at Zarit Burden Interview.)

Kami po ay lubos na nagpapasalamat sa nilaan ninyong oras. Bilang pasasalamat sa inyong paglahok, kayo po ay makakatanggap ng grocery voucher at bookmark na naglalaman ng mga detalye at numero ng mga libreng counselling services sa Metro Manila, upang makatulong kung sakaling mangangailangan kayo ng suportang emosyonal at mental.

Kayo po ay makasisiguro na ang anumang impormasyon ibibigay para sa pag-aaral ay hindi ibabahagi kaninuman ng walang pahintulot. Para sa seguridad, itatago ang mga nalikom na impormasyon sa isang metal na kahon na sususian sa tahanan ng Pangunahing Tagapag aral. Ang lahat ng nalikom ay dadaan sa isang makinang pampilas o shredding machine sa wikang ingles sa ligtas at ang kopya ng mga tawag ay buburahin sa maingat na proseso dalawang taon matapos ang pagkumpleto ng pag-aaral. Kung nanaisin, maaari kayong humingi ng kopya ng kabuuang resulta ng pagaaral.

Appendix C

Distress Protocol for Data Collection

Modified from Drauker, C.B., Martsof, D. S., and Poole (2009) Developing Distress Protocols for research on Sensitive Topics. Archives of Psychiatry Nursing 23 (5) pp 324-350 as cited in Haigh, C., Witham, G., (2015) will be utilized to manage any manifestation of distress among the respondents during data collection.

1. Initial Contact: Family members of Stroke survivors who verbalizes that they are experiencing a high level of stress or emotional distress or showing behaviors and symptoms that the data collection is too stressful like uncontrolled crying, shaking, etc., will be managed with STAGE 1 response
2. During Data Collection: Family members of Stroke survivors who verbalizes that the data collection is triggering negative emotions or feelings while completing the questionnaires will be managed with STAGE 1 response

Stage 1 Response:

- Stop the Discussion/Data collection
- Allow the Participant to relax
- Assess the mental status of the family member by asking:
 - Tell me what thoughts you are having? (Ano ang iyong naisip?)
 - Tell me what you are feeling right now? (Ano ang iyong nararamdaman?)
 - Do you feel you are able to go on about your day? (Sa iyong palagay kaya mo ba na maayos na ipagpatuloy ang araw na ito?)
 - Do you feel safe? (Sa iyong palagay, ikaw ba ay ligtas?)

Review assessments:

- If the Family member can carry on, and still consents to continue, then data collection will be resumed. However if, the participant can't carry on with the data collection and wants to withdraw participation, it will be discontinued, then Stage 2 response will be initiated.

Stage 2 Response:

- Discontinue the Data collection
- Allow the Participant to relax
- In the event that the family caregiver participant felt negatively (for example: potentially realizing their lack of functional support) referral to counseling will be done, with their consent (for instance, access the free Mental Health Support Teleconsultations of Manila City). Free and easy to reach counseling within Metro Manila will also be offered.

Follow up:

- The participant is encouraged to call either if he/she has persistence of distress in the following days after data collection. For all participants who verbalized to experience persistence of distress in relation to joining data collection, an invitation will be given for a one day free-of-charge Stress management seminar/workshop which will be facilitated by professional counselors from Amara Counseling and Training Centre.

Appendix D

Pagkuha ng Pahintulot



Pamagat ng Pag-aaral: Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Sampaloc, Manila, Philippines
Pangunahing Tagapag-aral: Mercy Joy N. Lubiano, RN
Pangalan ng Institusyon: University of the Philippines Open University

Mahal na Binibining/Ginang/Ginoo _____

Kayo po ay iniimbitahang makibahagi sa isang pag-aaral na pinapangunahan ni Bb. Mercy Joy N. Lubiano, isang rehistradong nars at mag aaral ng Master of Arts in Nursing. Dahil nakapasa kayo sa mga kondisyong kailangan upang makasali sa nasabing pag-aaral, kagaya ng pagkakaroon ng kapamilya na nagkaroon ng atake ng stroke at kasalukuyang namumuhay sa kumunidad/ Lungsod ng Manila. Ang pag-aaral na ito ay bilang katugunan sa pagkumpleto ng proyekto sa ilalim ng pangangasiwa ng mga propesor mula sa University of the Philippines Open University.

Upang malaman kung nais ninyong sumali sa pag-aaral na ito, mahalagang maunawaan mo ang buong detalye ng pag-aaral. Ang kasulatang ito ay naglalaman ng lahat ng impormasyong dapat malaman kagaya ng mga posibleng panganib at benepisyo ng paglahok dito. Matapos, mabasang mabuti, nararapat na lumagda ang sinumang makikibahagi

ANG MGA SUMUSUNOD AY MGA IMPORMASYONG DAPAT MALAMAN TUNGKOL SA PAGAARAL

Ano ang layunin ng pag-aaral o pananaliksik?	Pangunahing layunin ng pag aaral na ito ay ang mapagkumpara ang relasyon ng mga piling katangian, medikal na kondisyon ng pasyente, suportang natatanggap ng mga kapamilyang tagapag-alaga ng pasyenteng na-stroke sa pasanin o sa ingles ay “burden” na nararamdaman ng mga kapamilyang tagapag-alaga.
Ano ang aking tungkulin bilang kabahagi sa pag-aaral?	Bilang kabahagi sa pag-aaral na ito, kailangang maglaan ng mga 15-20 minuto upang sagutan ang mga katanungan na gagawin sa pamamagitan ng maikling tawag sa inyo sa telepono. Nangangailangang magbigay ng totoong impormasyon ukol sa epekto ng pagiging tagapag alaga sa isang kapamilyang nag karoon ng unang atake ng stroke. Para sa dokumentasyon at pagpapabuti ng kalidad ito ay naka-record
Ano ang maaaring panganib sa paglahok sa pag-aaral o pananaliksik?	Maaaring bilang isang kalahok mangangailangang magbigay ng 15-20 minuto para sa mga katanungan, hindi layunin ng anumang tanong ang magdulot ng kapahamakan o kaguluhang emosyonal, kaya lubos na pinapalagay na walang pinsala o kapahamakang dulot ang pagsali sa pag aaral na ito. Ngunit, kung makakaramdam ng negatibong emosyon dulot ng pagsagot sa mga katanungan. Hinihikayat naming na ito ay banggitin kaagad. Maaaring tumigil sa paglahok sa pag aaral ano mang oras naiisin, at kung inyong nanaisin mayroong nakalaang panuntunan upang mabigyan ka ng kaukulang suportang emosyonal at mental na libreng makakamit sa lungsod ng Manila.
Ilan ang tinatayang mga kabahagi sa pag-aaral?	Ang bilang ng tinatayang kalahok sa pag aaral ay 82 kapamilyang tagapag-alaga.

Ano ang mga maaaring benepisyo ng paglahok sa pag-aaral?	Bagamat walang kapalit na kabayaran ang paglahok sa pag-aaral, bilang pasasalamat ang lahat ng kalahok ay makakatanggap ng grocery vouchers at bookmarks na naglalaman ng impormasyon at numero ng mga counselling sites na libre ang serbisyo sa Metro Manila. Bukod dito ang pagaaral na ito ay makakatulong sa lipunan, dahil ang pagbibigay ng atensyon sa mga kapamilya ng pasyenteng na-stroke, ay maaaring pagmulan ng mga hakbang upang sila ay matulungan at masuportahan sa kanilang pasanin. Dahil ang epekto ng stroke ay nararanasan hindi lamang ng pasyente, kundi pati ng kanilang mga kapamilya.
Maaari ba akong tumanggi sa pakikibahagi sa pag-aaral?	Maaaring mag desisyong hindi sumali sa pag-aaral kung ito ang inyong nais, malugod nmin pinapahalagahan ang anumang desisyon.
Ano ang mga impormasyong pananatiliing pribado?	Ang anumang impormasyon ibibigay para sa pag-aaral ay hindi ibabahagi kaninuman ng walang pahintulot. Ang inyong pagkakakilanlan ay hindi ibubunyag sa ano mang mailalathala bilang resulta ng pagaaral na ito. Para sa seguridad, itatago ang mga nalikom na impormasyon sa isang metal na kahon na sususian sa tahanan ng Pangunahing Tagapag-aral. Ang lahat ng nalikom ay dadaan sa isang makinang pampilas o shredding machine sa wikang ingles, at ang kopya ng mga tawag ay buburahin sa ligtas at maingat na proseso dalawang taon matapos ang pagkumpleto ng pag-aaral. Kung nanaisin, maaari kayong humingi ng kopya ng kabuuang resulta ng pagaaral.
Maaari ba akong tumigil sa pakikibahagi sa pag-aaral kailanman ko naiisin	Kung kayo ay lumahok sa pag-aaral na ito, maaari pa rin na tumangging magpatuloy kailanman naisin, at hindi ito maka-apekto sa kalidad ng serbisyong medikal na matatangap ng pasyente sa Barangay.
Magkano ang tinatayang dagdag na gastuhin para sa pag-aaral?	Ang inyong pagsali sa pag-aaral ay libre. Ang pagtanggap ng maikling tawag sa inyong cellphone para sagutan ang mga katanungan ay hindi magdudulot ng anumang karagdagang gastusin.
Kung mayroon akong maging katanungan, sino ang maaari kong tawagan?	Kung mayroon katanungan o sa inyong palagay ay may kapahamakang natamo kaugnay sa nasabing pag-aaral, maaaring makipag-ugnayan sa pangunahing tagapagsaliksik at taga-pagaral gamit ang sumusunod na impormasyon: Email address: mercyjoy_lubiano@yahoo.com

PARA SA MGA KASALI SA PAGAARAL:

Naintindihan ko ng lubusan ang pag-aaral na aking lalahukan. Binigyan ako ng sapat na panahon upang makapag tanong at ako ay masaya sa mgakasagutang aking natanggap. Pumapayag akong maging kabahagi ng pag-aaral at naintindihan kong ako ay makakatanggap ng kopya ng form na ito ukol sa pagbibigay pahintulot.

Pangalan	Lagda	Petsa
Bilang tugon sa malawakang pagkontol sa Pandemya, sisiguraduhin naming kami ay maghuhugas ng kamay, maglalaan ng tamang distansya, gagamit ng Face mask at Face shield tuwing personal na makikipag usap. Ang interview ay gagawin sa pamamagitan ng 15-20 minuto na pagtawag sa inyo sa telepono, kung ikaw ay nais makibahagi, nararapat na ibigay ang sumusunod na detalye:		
CELLPHONE NUMBER:		PINILING ARAW AT ORAS PARA TAWAGAN:

PARA SA HUMIHINGI NG PAHINULOT

Aking binigay ang buong detalye ukol sa pag-aaral sa kabahagi. Naniniwala akong naintindihang mabuti ang lahat ng

impormasyong kalakip sa pag-aaral. Sa aking palagay, may kakayahang magdesisyon upang magbigay pahintulot ang kalahok.

Pangalan	Lagda	Petsa
----------	-------	-------

PARA SA NAKASAKSI NG PAGBIBIGAY PAHINTULOT:

Aking nasaksihan na ang pagbibigay ng buong detalye ng pag-aaral sa kabahagi at sa aking palagay, may kakayahang magdesisyon upang magbigay pahintulot ang kalahok.

Pangalan	Lagda	Petsa
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Appendix E

Author's Approval to Use the Zarit Burden Scale

- Request for Permission to Use the 22-item Zarit Burden Interview 6

mercyjoy lubiano Hi Mr. Steven Zarit, Greetings! I am Ms. Mercy...

Zarit, Steven Howard <z67@psu.edu>
To: mercyjoy lubiano
Cc: mdulac@mapigroup.com, cgiroudet@mapigroup.com

Dear Ms. Lubiano,

Thank you for your inquiry about the Zarit Burden Interview (ZBI).

You can request permission to use the ZBI on line by registering with eProvide and then searching for the Zarit Burden Interview on their website.

<https://eprovide.mapi-trust.org/instruments/zarit-burden-interview>

Zarit Burden Interview (ZBI) - Mapi Research Trust

eprovide.mapi-trust.org

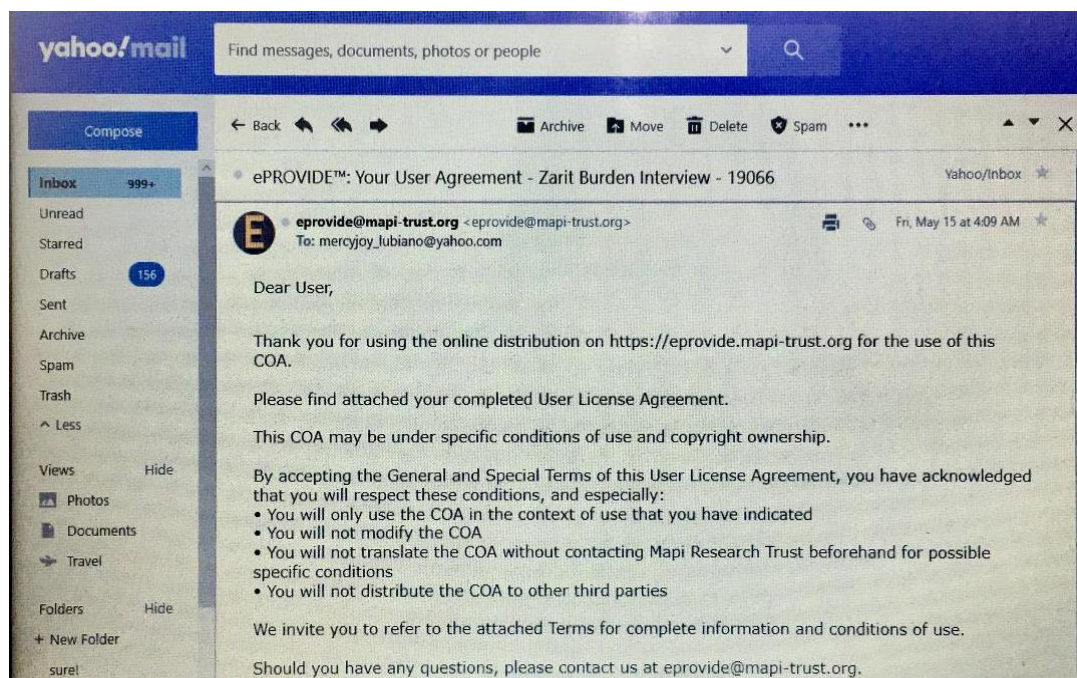
The Zarit Burden Interview (ZBI) is officially distributed by Mapi Research Trust on behalf of Dr Zarit. Please visit PROQOLID for more information!

Information is also provided about available translations.

There is no fee for use of the ZBI in student or unfunded academic research, but you must register and request permission on the eProvide website.

Best wishes for a successful project.

Steve Zarit



Screenshot Reference: NINDS Common Data Elements Notice of Copyright Modified Rankin Scale. Retrieved from: [https://www.commondataelements.ninds.nih.gov/report-viewer/24953/Modified%20Rankin%20Scale%20\(mRS\)](https://www.commondataelements.ninds.nih.gov/report-viewer/24953/Modified%20Rankin%20Scale%20(mRS)).


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Report Viewer

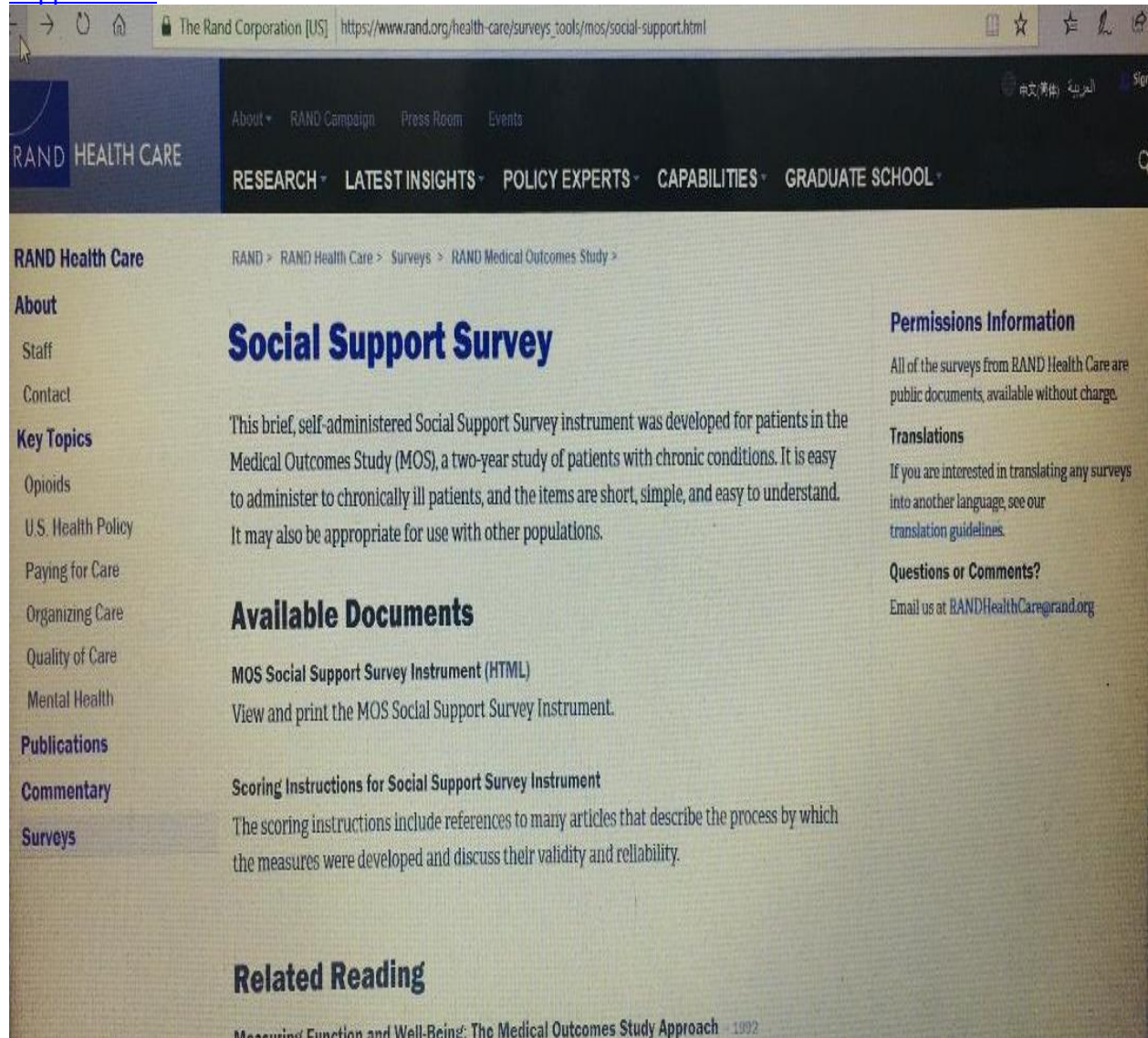
NINDS CDE Notice of Copyright
Modified Rankin Scale (mRS)

Availability	The van Swieten mRS scale is in the public domain and a free training program was prepared by Professor KR Lees in association with the Media Services Department of the University of Glasgow to certify physicians, nurses, and first responders on how to use the mRS scale. The program consists of a series of digital video recordings and accompanying written material which includes a self paced Instruction-Demonstration module and the certification modules. However, sponsors and institutions wanting to use this program to document rater competency, interrater reliability and educational compliance for their studies, programs and clinical trials must obtain copyright permissions as clinical trials will need additional documentation in order to comply with regulatory requirements. The Modified Rankin Scale can be found here: Modified Rankin Scale.
Classification	Supplemental - Highly Recommended: Unruptured Cerebral Aneurysm and Subarachnoid Hemorrhage (SAH) and Stroke (based on study type, disease stage and disease type) Exploratory: Myasthenia Gravis (MG)
Short Description of Instrument	Purpose: The modified Rankin Scale (mRS) is a scale commonly used for measuring the degree of disability or dependence in the daily activities of individuals who have suffered a stroke, and it has become the most widely used clinical outcome measure for stroke clinical trials. Overview: The mRS was originally introduced in 1957 by Rankin, and first modified to its currently accepted form by Prof. C. Warlow's group at Western General Hospital in Edinburgh for use in the UK-TIA study in the late 1980s. The first publication of the current modified Rankin Scale was in 1988 by van Swieten, et al., who also published the first interobserver agreement analysis of the modified Rankin Scale.

Appendix F

Medical Outcomes Study Social Survey

Screenshot Reference: Social Support Survey. MOS Social Support Survey Instrument (HTML)
Rand Health Care. Retrieved from: https://www.rand.org/health-care/surveys_tools/mos/social-support.html



Appendix G

SUGGESTED GUIDELINES FOLLOWED TO TRANSLATE THE MEDICAL OUTCOMES STUDY SOCIAL SUPPORT SURVEY FROM ENGLISH TO TAGALOG

(Social Support Survey Instrument. Rand Health Care. Retrieved on: https://www.rand.org/health-care/surveys_tools/about_translations.html)

1. Translator was contacted through email to provide the socio-demographic characteristics of the survey participants like their reading level, the language they widely used, how and where the survey will be administered.

From: mercyjoy lubiano [mailto:mercyjoy_lubiano@yahoo.com]
Sent: Thursday, December 13, 2018 8:04 PM
To: phil@orangetranslations.com
Subject: Request for Translation

Orange Translations Inc.
37/F LKG Tower
6801 Ayala Avenue, Makati Philippines

To whom it may concern,

Greetings! I am Ms. Mercy Joy Lubiano, a Master of Arts in Nursing student, who would like to avail your professional translation service. I would like to request a Filipino/Tagalog translation of the Medical Outcome Study- Social Support Survey for my research study. For it is my utmost objective to have the aforementioned research questionnaire be translated in a widely understood form of Tagalog by the target respondents, I would want to describe the characteristics of the selected respondents, which I enumerated below:

- Filipino family caregivers of stroke patients.
 - 18 years old and above
 - Respondents do not necessarily have specific profession or educational attainment for as long as they are able to read, write and communicate in Tagalog.
- The translated questionnaire will be printed and administered in paper form

I would be glad to discuss any issues in regards to any items or concepts that may require further clarification on goal or intent. You can reach me through my email address: mercyjoy_lubiano@yahoo.com.

I attached the Medical Outcome Study- Social Support Survey together with this email. I hope to hear from you soon!

Kind regards,
Ms. Mercy Joy Lubiano

2. The Translator reviewed the document, and should have clarified any terms, concepts, items that may need additional information; my personal email was provided to them for that purpose.
3. The certified translator must be a native user of Tagalog language; hence, translation service was sought from Orange Translation Inc., which is located in Makati City, Philippines. Attached below is the Translation certificate they issued after they translated the original English version of the Medical Outcomes Study Social Support Survey to Tagalog:



Orange Translations Inc.
37/F LKG Tower
6801 Ayala Avenue
1226 Makati City,
Philippines
Tel +63-2-836-0854

June 14, 2019

Translation Certificate

ENGLISH

I, Chris Punzalan, Project Manager of Orange Translations Inc., hereby certify that the foregoing translations from English into Tagalog, attached hereto and consisting of 2 pages, are true and correct translations of the original documents.

For and on behalf of
Orange Translations Inc.

.....
Authorized Signature(s)



4. Below is the original English version of the Medical Outcomes Study Social Support Survey which was sent to Orange Translation Inc. to be translated to Tagalog:

THE MEDICAL OUTCOME STUDY SOCIAL SUPPORT SURVEY

NAME: _____

DATE: _____

EMOTIONAL/INFORMATIONAL SUPPORT	(1) None of the time	(2) A little of the time	(3) Some of the time	(4) Most of the time	(5) All of the time
Someone you can count on to listen to you when you need to talk					
Someone to give you information to help you understand a situation					
Someone to give you good advice about a crisis					
Someone to confide in or talk to about yourself or your problems					
Someone whose advice you really want					
Someone to share your most private worries and fears with					
Someone to turn to for suggestions about how to deal with a personal problem					
Someone who understands your problems					

TANGIBLE SUPPORT	(1) None of the time	(2) A little of the time	(3) Some of the time	(4) Most of the time	(5) All of the time
Someone to help you if you were confined to bed					
Someone to take you to the doctor if you needed it					
Someone to prepare your meals if you were unable to do it yourself					
Someone to help with daily chores if you were sick					

AFFECTIONATE SUPPORT	(1) None of the time	(2) A little of the time	(3) Some of the time	(4) Most of the time	(5) All of the time
Someone who shows you love and affection					
Someone to love and make you feel wanted					
Someone who hugs you					

POSITIVE SOCIAL INTERACTION	(1) None of the time	(2) A little of the time	(3) Some of the time	(4) Most of the time	(5) All of the time
Someone to have a good time with					
Someone to get together with for relaxation					
Someone to do something enjoyable with					

ADDITIONAL ITEM	(1) None of the time	(2) A little of the time	(3) Some of the time	(4) Most of the time	(5) All of the time
Someone to do things with to help you get your mind off things					

Reference: The Medical Outcome Study Social Support Survey is public domain, and so permission is not needed to use it.

Social Support Survey Instrument. Rand Health Care.

https://www.rand.org/health/surveys_tools/mos/social-support/survey-instrument.html. Accessed on November 2, 2018

Below is the copy of the translated Medical Outcomes Study Social Support Survey which was translated in Tagalog:

**ANG SURVEY PARA SA PANLIPUNANG SUPORTA NG PAG-AARAL SA
MEDIKAL NA KINALABASAN**

PANGALAN: _____

PETSA: _____

SUPPORTANG EMOSYONAL/IMPORMASYON	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong maaasahan mong pakinggan ka kung kailangan mong makipag-usap					
Taong magbibigay sa iyo ng impormasyon para matulungan kang maunawaan ang sitwasyon					
Taong magbibigay sa iyo ng mabuting payo tungkol sa krisis					
Taong mapagtatapatan o makakausap tungkol sa sarili mo o mga problema mo					
Taong ang payo ay talagang gusto mo					
Taong ibabahagi ang pinakapribado mong inaalala at kinatatakutan					
Taong madudulugan para sa mga suhestiyon tungkol sa kung paano makakayanan ang personal na problema					
Taong nakakaunawa sa mga problema mo					

KONKRETONG SUPORTA	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong tutulong sa iyo kung ikaw ay nasa kama na lang					
Taong magdadala sa iyo sa doktor kung kailangan mo					
Taong maghahanda ng mga pagkain mo kung hindi mo ito mismo magawa					
Taong tutulong sa mga pang-araw-araw na gawain kung may sakit ka					

MAPAGMAHAL NA SUPORTA	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong nagpapakita sa iyo ng pag-ibig at pagmamahal					
Taong mamahalin at pararamdam sa iyo na gusto ka					
Taong yumayakap sa iyo					

POSITIBONG PANLIPUNANG INTERAKSIYON	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong makakasama para mag-good time					
Taong makakasama para mag-relax					
Taong makakasama para gumawa ng bagay na kasiya-siya					

KARAGDAGANG BAGAY	(1) Hindi kailanman	(2) Kaunting oras	(3) Katamtamang oras	(4) Kadalasan	(5) Lagi
Taong makakasamang gumawa ng mga bagay para matulungan kang makalimot sa bagay-bagay					

Sanggunian: Ang Survey para sa Panlipunang Suporta ng Pag-aaral sa Medikal na Kinalabasan ay pampublikong domain, at kaya hindi kailangan ng pahintulot na gamitin ito.

Panlipunang Suportang Survey na Instrumento. Rand Health Care.

https://www.rand.org/health/surveys_tools/mos/social-support/survey-instrument.html. In-access noong Nobyembre 2, 2018

- Back-translation of the Medical Outcomes Study Social Support Survey from Tagalog to English was done by professional and certified translators whose native language is English. A certified translation company called Translyte was chosen to do the task, their office is in Houston, Texas, USA.

Below is the Translation certificate they sent as proof of the service acquired.



hello@translayte.com
US: (737) 250-0401
CA: 587-809-6457

Ref #: 29447

Certification of Translation Accuracy

Translation of **Certification** from **Tagalog** to **English (USA)**

We, Translayte, a professional translation services company and ATA Member (#275635), having no relation to the client, hereby certify that the annexed **English (USA)** translation of the **Tagalog** document, executed by us, is to the best of our knowledge and belief, a true and accurate translation of the original document, likewise annexed hereunto.

This is to certify the correctness of the translation only. We do not guarantee that the original is a genuine document, or that the statements contained in the original document are true. Further, Translayte assumes no liability for the way in which the translation is used by the customer or any third party, including end-users of the translation.

A copy of the translation, and original files presented, are attached to this certification.

For: Translayte
Tayo Ademolu, Managing Director
Dated: December 2, 2021





BDXL Ltd. (No. 7496682). VAT No. 119597575.
USA: 12 Greenway Plaza, Houston, TX. 77046.
Canada: 22 Frederick St Suite 700, Kitchener, ON, N2H 6M6.

- 1 - / 3

Below is the copy of the translated Medical Outcomes Study Social Support Survey in Tagalog which was sent to Translayte:



translayte

hello@translayte.com
 US: (737) 250-0401
 CA: 587-809-6457

ANG SURVEY PARA SA PANLIPUNANG SUPORTA NG PAG-AARAL SA MEDIKAL NA KINALABASAN

PANGALAN: _____ PETA: _____

SUPORTANG EMOSYONAL/IMPORMASYON	1)Hindi Kailanman	2)Kaunting Oras	3)Katamtamang oras	4)Kadalasan	5) Lagi
- Taong maaasahan mong pakinggan ka kung kailangan mong makipag-usap - Taong magbibigay sa iyo ng impormasyon para matulungan kang maunawaan ang sitwasyon - Taong magbibigay sayo ng mabuting payo tungkol sa krisis - Taong mapagtatapatan o makakaasap tungkol sa sarili mo o mga problema mo - Taong ang payo ay talagang gusto mo - Taong ibabahagi ang pinakapribado mong inaalala at kinatatakutan - Taong madudulugan para sa mga suhestiyon tungkol sa kung paano makakayanan ang personal na problema - Taong nakakaunawa sa mga problema mo KONKRETONG SUPORTA - Taong tutulong sayo kung ika'y nasa kama na lang - Taong magdadala sayo sa doktor kung kailangan mo - Taong maghahanda ng mga pagkain mo kung hindi mo ito mismo magawa - Taong tutulong sa mga pang-araw-araw na gawain kung may sakit ka MAPAGMAHAL NA SUPORTA - Taong nagpapakita sa iyo ng pag-ibig at pagmamahal - Taong mamahalin at pararamdam sa iyo na gusto ka - Taong yumayakap sayo POSITIBONG PANLIPUNANG INTERAKSIYON - Taong makakasama para mag-good time - Taong makakasama para mag-relax - Taong makakasama para gumawa ng bagay na kasiya-siya KARAGDAGANG BAGAY - Taong makakasamang gumawa ng mga bagay para matulungan kang makalimot sa bagay-bagay					

Sanggunian: https://www.rand.org/health/surveys_tools/mos/social-support/survey-instrument.html

BDXL Ltd. (No. 7496682). VAT No. 119597575.
 USA: 12 Greenway Plaza, Houston, TX, 77046.
 Canada: 22 Frederick St Suite 700, Kitchener, ON, N2H 6M6.

- 3 - / 3

Below is the back-translation to English version of the Medical Outcomes Study Social Support Survey done by Translayte, a certified translation company in the USA:



translayte

hello@translayte.com

US: (737) 250-0401

CA: 587-809-6457

SURVEY ON SOCIAL SUPPORT FOR STUDY ON MEDICAL RESULTS

NAME: _____ DATE: _____

EMOTIONAL SUPPORT/INFORMATION	1) Never	2) Few times	3) Moderate times	4) Often	5) Always
- Someone you trust to listen to you if you need to talk - Someone who will give you information to help you understand the situation - Someone who will give you good advice about a crisis - Someone you can confide on or talk to about yourself or your problems - Someone whose advice you really like - Someone who will share your most private worries and fears - Someone you can go to for suggestions on how to bear personal problems - Someone who understand your problems					
CONCRETE SUPPORT - Someone who will help you when you are just confined on a bed - Someone who will take you to the doctor when you need it - Someone who will prepare your food if you cannot do it yourself - Someone who will help in your everyday activities if you are sick					
LOVING SUPPORT - Someone who show you love and concern - Someone who will love you and will make you feel wanted - Someone who embrace you					
POSITIVE SOCIAL INTERACTION - Someone to be with to have a good time - Someone to be with to relax - Someone to be with to have fun					
ADDITIONAL ITEMS Someone to be with to do things to help you forget your worries					

BDXL Ltd. (No. 7496682). VAT No. 119597575.

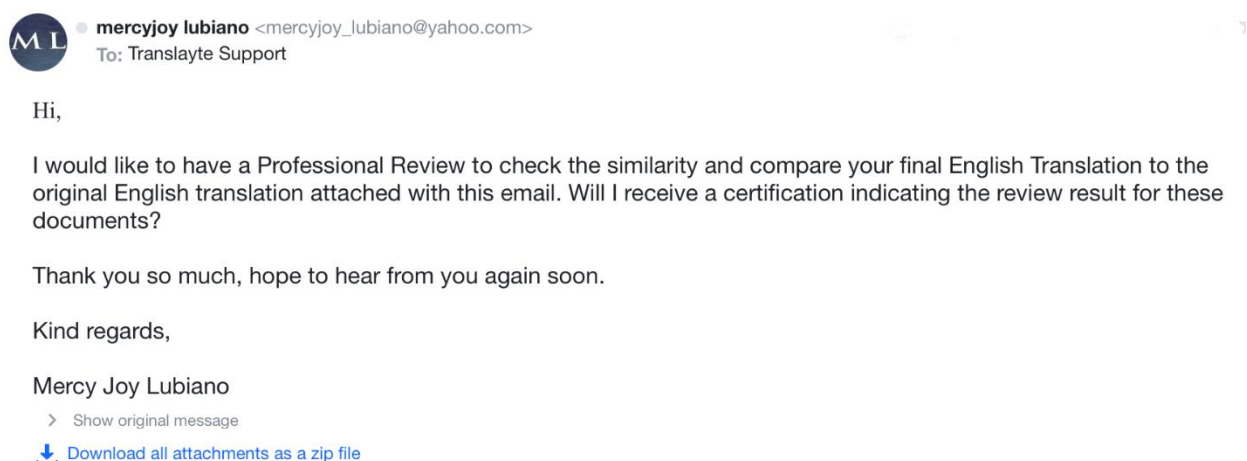
USA: 12 Greenway Plaza, Houston, TX, 77046.

Canada: 22 Frederick St Suite 700, Kitchener, ON, N2H 6M6.

- 2 - / 3

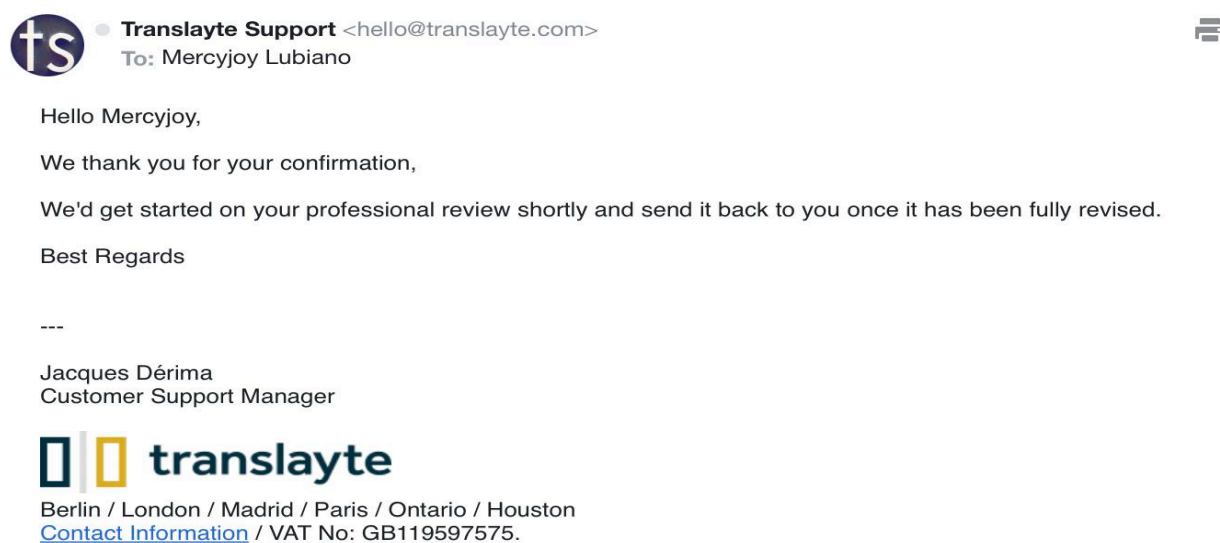
6. Translate, a certified translation company, was also requested to make a professional review of the original English version and the English back translation of the Medical Outcomes Study Social Support Survey.

Below is the screenshot of E-mail sent to them:



7. Translayte, a certified translation company, agreed to perform a professional check for both documents.

Below is the screenshot of E-mail sent they sent in response to my request:



8. The result show that there is just minimal difference between the original English version and the English back translation of the Medical Outcomes Study Social Support Survey. Therefore, the Tagalog translation was utilized for data collection.

Appendix H

Research Ethics Committee Approval

RE: Caregiver Burden and Social Support Among Family Members of Stroke Survivors: A Community-Based Study in Metro Manila, Philippines

REC code: UPOU MAN202109 Subject: Decision letter of UPOU IREC

Dear **Ms. Lubiano**:

This is to acknowledge receipt of your request and the following supporting documents:

March 5, 2021

1. Thesis Approval Sheet
2. Revised Research Proposal
3. Application For Ethics Review Of Amendments

The above documents underwent expedited review which generated the following decision:

APPROVED

¹While the study is in progress, we request you to submit to us the following documents when applicable:

1. Progress report using the attached UPOU IREC Form 3(B): Continuing Review Application Form every Quarter of the year (every 28th of June [2022], September [2022], December [2022]) of the start of the Ethics Approval which includes the following: (*NOTE: In view of active ethical clearance, this report is mandatory even if the study has not started or is still awaiting release of funds.*)

UPOU IREC FORM 6(A): APPROVAL LETTER TO THE STUDY PROTOCOL

University of the Philippines Open University INSTITUTIONAL RESEARCH ETHICS COMMITTEE

Los Baños, Laguna 4031 Tel. Nos: (6349) 536 6001 to 6006 loc. 301, 420; 536 6014

29 March 2022

Mercy Joy N. Lubiano, RN

Principal Investigator/ Researcher
c/o Faculty of Management and Development Studies University of the Philippines Open University

1. Date covered by the report
2. Protocol summary and status report on the progress of the research
3. Number of participants accrued.
4. Withdrawal or termination of participants
5. Complaints on the research since the last UPOU IREC review
6. Summary of relevant recent research literature, interim findings and amendments since the last UPOU IREC review
7. Any relevant multi-center research reports
8. Any relevant information especially about risks associated with the research
9. A copy of the informed consent document

3. Any amendment/s in the protocol, especially those that may adversely affect the safety of the participants during the conduct of the research including changes in personnel, must be submitted or reported using the attached UPOU IREC Form 3(A): Study Protocol Amendment Submission Form.
4. Revisions in the informed consent form using the attached UPOU IREC Form 3(A): Study Protocol Amendment Submission Form.
5. Notice of early termination of the study and reasons for such using UPOU IREC Form 3(E): Early Study Termination Application Form.
6. Any event which may have ethical significance. Any information which is needed by the UPOU IREC to do ongoing review Notice of time of completion of the study using UPOU IREC Form 3(C): Final Report Form. The

UPOU-IREC shall require the submission of the final report not later than 8 weeks after the end of the study. **(24 May 2023)**

8. Application for renewal of ethical clearance 30 days (**February 27, 2023**) before the expiration date of this approval through submission of UPOU IREC Form 3(B): Continuing Review Application Form, if the study will continue beyond expiration date of ethical clearance.

For more information including UPOU-IREC forms, you can ask the UPOU-IREC Project Staff at irec@upou.edu.ph.

Thank you.
Very truly yours,

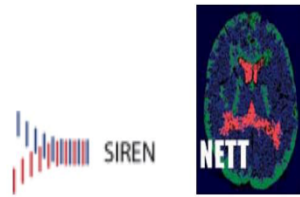
Asst. Prof. Ria Valerie D. Cabanes

Chair

Cc Dr. M Oruga, Asst. Prof. Roja Rivera, Ms. Erlinda Manarin, Marian Tatlonghari

UPOU IREC FORM 6(A): APPROVAL LETTER TO THE STUDY PROTOCOL

Appendix I
CERTIFICATE OF ONLINE MODIFIED RANKIN SCALE TRAINING



Mercy Joy Lubiano

University of the Philippines-Open University

This confirms that Mercy Joy Lubiano successfully
completed the SIREN-NETT mRS
Certification on December 7, 2021.

This certification expires two years from the date above.

IMPORTANT: Please keep this email for your records.
This certification program was developed with NINDS
funding for the exclusive use in NETT, StrokeNet, and
SIREN studies. Not valid for other external certification
use.

Appendix J
DISTRESS MANAGEMENT TRAINING CERTIFICATE



Amara Counseling & Training Center

QUEZON CITY, PHILIPPINES

Certificate of Attendance

to

Mercy Joy Lubiano-Sumagang

for participating in the webinar entitled

Psychological First Aid

*held on August 7, 2021, from the Amara Counseling and Training Center
#3 Ligaya St., Isidora Hills, Brgy. Holy Spirit, Quezon City*

MARJORIE B. GOMEZ, MA, RGC
*Speaker
Resident Counselor*

RACHEL T. DELA CRUZ
Executive Director

Appendix K

REQUEST PERMISSION LETTERS

Dear Honorable Barangay Chairwoman Victoria Cobrador,
Barangay 395
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

This descriptive study aims to open better understanding of the stroke patients' and their families' situation. This will also help healthcare professionals, in providing appropriate intervention and strategies in aiding the stroke survivors and their families in the community during this drastic life change and transition, while making sure that patient's and the healthcare institution's ethical standards are met.

If given a chance, I am willing to provide more information about the aforementioned proposed study. Although the interview will be through phone, in line with the current Pandemic, we will make sure to practice hand hygiene, social distancing, use PPE like face mask and face shield in case of any face-to-face conversation. I sincerely hope that my request will be considered favorably. Thank you!

Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairman Tomas Dacayo,
Barangay 397 Zone 41
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairwoman Catherine Adonis Lagnada,
Barangay 398 Zone 41
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairman Roy Quizon,
Barangay 399 Zone 41
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairwoman Wilma Taguba,
Barangay 400 Zone 41
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairman Allan Antiado,
Barangay 401
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairwoman Cynthia Escauso,
Barangay 402
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

REQUEST FOR PERMISSION

Dear Honorable Barangay Chairman Jesusito Diosana,
Barangay 403 Zone 41
Manila Philippines

Greetings!

I am Ms. Mercy Joy Lubiano, a registered nurse who is presently pursuing Master's degree focused primarily on Adult Health Nursing at the University of the Philippines- Open University. It is my greatest ambition to contribute in the enrichment of nursing practice, particularly in the provision of family-centered care; hence I would like to make a research study entitled "*Caregiver Burden and Social Support among Family Members of Stroke Patients: A Community-Based Study in Manila, Philippines*". In line with this, I would like to humbly ask for permission to implement this research among the stroke patients and their family members who receive maintenance medication from the Barangay Health Center.

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Respectfully yours,

Ms. Mercy Joy N. Lubiano, RN
Researcher

Noted by:
Prof. Rita C. Ramos, RN, MAN
Research Mentor
University of the Philippines- Open University

CURRICULUM VITAE

MERCY JOY N. LUBIANO, R.N.



PERSONAL INFORMATION:

Email Address: mercyjoy_lubiano@yahoo.com

Contact Number:

Date of Birth: September 30, 1987

Address: 33 Crocus Street, Belfast, Northern Ireland, United Kingdom, BT12 7AP

EDUCATIONAL BACKGROUND

ELEMENTARY

School Name: **Ricardo P. Cruz Sr. Elementary School**

School Address: MLQ St. Lower Bicutan Taguig City Years Attended: 1994-2000

HIGH SCHOOL

School Name: **Taguig National High School**

School Address: IRM St. Lower Bicutan Taguig City Years Attended: 2000-2004

Honors/Awards Received: **Second Honorable Mention (Batch 2003-2004)**

COLLEGE:

School Name: **Emilio Aguinaldo College - Manila**

School Address: 1113-1117 San Marcelino St. Ermita Manila Years Attended: 2004-2008

Degree Completed: Bachelor of Science in Nursing

Honors/Awards Received: **Cum Laude (Batch 2007-2008)**

POST-GRADUATE EDUCATION:

School Name: **Queen's University Belfast- UK**

School Address: University Road, Belfast, Northern Ireland, UK BT7 1NN

Degree Completed: Cardiac Surgery Intensive Care Nursing (Short Course)

Inclusive Dates: September 2021- August 2022

WORK EXPERIENCE:

THIRD EXPERIENCE: Royal Victoria Hospital

Address: 274 Grosvenor Road, Belfast, Northern Ireland, United Kingdom, BT12 6BA

Last Held Position: Staff Nurse

Area: Cardiac Surgery-ICU

Inclusive Dates: November 2017- Present

SECOND EXPERIENCE: Kingdom Hospital- A 150 Bed-capacity Tertiary Hospital

Address: P.O. Box 84400, Riyadh City 11671, Kingdom of Saudi Arabia

Last Held Position: Cardiac Care Nurse

Area: Cardiac Care Unit

Inclusive Dates: March 2014- October 2017

FIRST EXPERIENCE: Dr. Bakhsh Hospital- A 200 Bed-capacity Tertiary Hospital

Address: Al-Sharafiyah Distrist, Jeddah Kingdom of Saudi Arabia

Position: Staff Nurse

Area: Medical Ward

Inclusive Dates: Nov. 2010- Nov. 2012