

St. Catherine University

SOPHIA

Master of Social Work Clinical Research Papers

School of Social Work

5-2014

Social Worker Interventions for Patients Post-Stroke

Alexander Carlson
St. Catherine University

Follow this and additional works at: https://sophia.stkate.edu/msw_papers



Part of the [Social Work Commons](#)

Recommended Citation

Carlson, Alexander. (2014). Social Worker Interventions for Patients Post-Stroke. Retrieved from Sophia, the St. Catherine University repository website: https://sophia.stkate.edu/msw_papers/300

This Clinical research paper is brought to you for free and open access by the School of Social Work at SOPHIA. It has been accepted for inclusion in Master of Social Work Clinical Research Papers by an authorized administrator of SOPHIA. For more information, please contact amshaw@stkate.edu.

Social Worker Interventions for Patients Post-Stroke

By

Alexander Carlson, B.A.S.

MSW Clinical Research Seminar

Presented to the Faculty of the
School of Social Work
St. Catherine University and the University of St. Thomas
St. Paul, Minnesota
in Partial fulfillment of the Requirements for the Degree of
Master of Social Work

Committee Members

Michael Chovanec, Ph. D., LICSW, LMFT (Chair)

Tanya Rand, LICSW

Jodi Greenstein, LICSW

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

Research suggests that when a patient experiences a stroke, the lives of the patient and family of the patient can be impacted in many different ways. The purpose of this project was to identify the ways social workers work with stroke patients in the hospital, and how do they identify mental health symptoms in these patients. Using a qualitative design, four social workers, currently providing services in hospitals were interviewed. Data was analyzed using deductive approaches in which themes were developed from the interview responses. The findings indicated that most mental health symptoms are identified in patients, and then treated once the patient leaves hospitalization. Also, social workers have ways to identify general mental health themes, but do not have a standard mental health inventory or screen. The findings demonstrate that stroke patients and families of the patients may be overwhelmed, but still need support and compassion. This support could come from the social worker assigned to the family, or possibly from a volunteer in order to help normalize and care for the patient.

Acknowledgements

I would like to acknowledge my research chair Mike Chovanec, Ph. D., LICSW, LMFT, as well as my committee members, Tanya Rand, LICSW and Jodi Greenstein, LICSW. Without their tireless work, effort and dedication to this project, my research would likely have taken a completely different direction. Innumerable topics, ideas and recommendations were given to me, which created the ability to enrich and strengthen the research process. I am forever grateful to you three for the time and assistance you provided to me through the year.

Additionally, I would like to thank my participants in this study, as well as the countless hospital social workers providing care to stroke patients around the world. It takes a great level of compassion, patience and knowledge to be able to connect with patients and patient care systems who have just had their lives turned upside down. You all help to make a truly terrifying and serious situation more comfortable for countless patients and families. We as patients cannot thank you enough for all that you do.

Dedication

I'd like to take the time to thank my friends and family; you all have been so patient and motivating to me through this entire process. I've heard former students, supervisors and professors say that it is necessary for MSW students to pick and choose how many times are able to get together with friends and family, so as to leave enough time to complete studies. Many of you have been so compassionate towards my requests for schedule changes and needs to decline time spent together; I'll never be able to demonstrate how truly appreciative this has been necessary.

Thank you to Pandora for having free classical music for me to get my mind in order when I've been anxious about this project.

A special thank you to my wife Mallory and my father Greg. Thank you so much for all of the calls you've made to check in on me, conversations helping to calm me down, literally keeping me alive and sane through my medical challenges, and all of the time spent helping me with my household responsibilities. I love you both, and don't know if I will ever be able to thank you enough for all you have done for me.

Finally, thank you to my baby girl Hattie Grace. Daddy is finally done with his homework, and can come play with you!

Table of Contents

ABSTRACT	i
ACKNOWLEDGEMENTS	ii
DEDICATION	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	v
INTRODUCTON	1
LITERATURE REVIEW	6
CONCEPTUAL FRAMEWORK	15
METHODOLOGY	19
FINDINGS	25
DISCUSSION	35
LIMITATIONS AND RECOMMENDATIONS	39
CONCLUSION	45
REFERENCES	47
APPENDIXES	49

List of Tables

TABLE 1	27
TABLE 2	28
TABLE 3	29
TABLE 4	29
TABLE 5	30
TABLE 6	31
TABLE 7	32

Social Worker Interventions for Patients Post-Stroke

Introduction

A cerebrovascular accident (CVA), more commonly known as a stroke, is the most frequently occurring medical condition in the United States leading to long-term disability (Klinedinst et al.2012). CVA is also the third most prevalent cause of death in the United States (Rizzo, 2006). Not only are CVA incidences frequent, but the onset of each occurrence also links to a great number of resource utilization in hospitals and clinics (Riddoch et. Al., 1995). The resources utilized not only come in the form of hospital staff, but also in increased economic cost (Gabrielle, 2009). In a 1985 study, it was estimated that a patient living with the complications of a CVA without receiving some sort of rehabilitation cost approximately \$100,000 over the course of their lifetime (Riddoch et. Al., 1995).

However, the experience of a stroke in somebody under the age of 30 years is a rare occurrence. For example, consider the case of “Bob”. Bob is a 29 year old male who experienced stroke at age 28. He has not experienced a stroke due to heart disease, arterial plaque buildup, drug use, or any other lifestyle choice. The reason Bob experienced his stroke was due to a congenital heart defect, which disallowed proper blood circulation. This defect allowed a blood clot to travel through the chambers of his heart up into his brain. As a result, Bob experienced a loss of his ability to walk, proper balance, and began to experience signs of anxiety and depression. The mental health symptoms began presenting within a week of him being discharged from the hospital. Bob regained his ability to walk over time, but his mental health symptoms remained long after his increase in physical functioning. He returned to the hospital and emergency room several times, unsure of whether or not he was experiencing another stroke,

or the symptoms of a panic attack. Each time Bob was admitted to the emergency room, doctors would evaluate his medical symptoms, and find that he was not having a stroke. Bob asked doctors whether or not they thought he may be experiencing a panic attack or anxiety, but no mental health evaluation was ever given.

A patient meeting these criteria would be within the 10th percentile in regards to average age of CVA onset (Sila et. Al., 2011). CVA patients also frequently will need aftercare; approximately 90% of the patients needing some type of medical or rehabilitative intervention, leaving as few as 10% of the patients requiring little to no medical or rehabilitative interventions (Riddoch et. Al., 1995). Not only do CVA patients experience a myriad of physical complications and disabilities (i.e.: trouble with muscle atrophy, inability to use certain parts of their bodies, attention, mood, concentration and cognition challenges, et cetra.), but mental health problems can be a co-morbid condition accompanying a stroke (Klinedinst et. Al., 2012). One of the most common mental health concerns facing post-stroke survivors is the condition of post-stroke depression (Klinedinst, 2012). Post-stroke depression is generally considered to be a lay term; post-stroke depression is classified by the Diagnostic Statistical Manual of Mental Disorders (America Psychiatric Association, 2013) as a mood disorder due to a general medical condition, as opposed to Major Depressive Disorder. The specifiers for this diagnosis generally are identified as the patient having either depressive features, manic features, or a combination of the two (Ros, 2009). In addition, some major depressive-like episodes can be experienced by the patient rather than longer, more pervasive depressive symptoms.

One of the challenges which CVA patients clinically present is in differentiating whether or not the emotional and behavioral changes exhibited are linked to the physical characteristic changes in the brain, mood changes due to the patient's new situation, or due to cognitive

changes associated with aging (Klinedinst et. al., 2006). Working with stroke patients is a very complex occupation; it requires skilled and knowledgeable professionals in order to discern between all of the patient's conditions. According to the literature, these challenges are some of the reasons that post-stroke depression is largely unidentified and undiagnosed within the population of CVA patients (Klinedinst et. al., 2006). In addition, Klinedinst et. al., (2006) asserts that many CVA patients deliberately try to hide symptoms from clinicians, and not enough primary care physicians are screening for depressive symptoms. It has been reported that approximately one in three CVA sufferers will experience some form of depression after the occurrence (Hackett et. al., 2006).

The major cause for concern is in the level of post-stroke counseling, psychoeducation and mental health screening performed by my practitioners. When examining the impact of a stroke on someone atypical from the average patient, challenges in the treatment could arise. As Klinedinst asserts, CVA is the third most prevalent cause of death in the United States (2012). With this high percentage, there is a greater likelihood that a social worker will come into contact with this patient population at some point in their career. As social workers tend to examine patients from the lens of the systems involved in the life of a patient, social work insight is beneficial to the treatment of CVA patients.

Clinicians may declare that a 28 year old would likely have depression, and negatively impacted cognitive abilities as a result of stroke. But what if this example stroke patient were to begin returning to the hospital reporting of new symptoms? For example, what if said patient expressed experiencing symptoms of a panic attack, that clinicians were unsure whether symptoms were sign of another stroke, or were mental health changes? If these new symptoms were so severe, this patient may present to the emergency room multiple times, repeated

inquiries and consulting with many doctors, physician's assistants, medical specialists and medical interns. How much advocacy and speaking should a patient have to do for their mental health symptoms to be addressed in addition to the ruling out of other medical conditions? What would happen if the patient, as a result of the stroke, were now unable to communicate in a verbal or written manner? These are just some possible challenges that a stroke patient may have to experience.

Importance to Social Work

With the aforementioned prevalence of under-diagnosed and under-identified mental health symptoms, as well as coordinating care and support for the patient, a clinical social worker would be a great candidate for working with this population. A doctor/neurologist and a clinical social worker could effectively collaborate in order to identify current and impending concerns for stroke patients; this collaborative team could work to identify what issues may be present for the patient as well as their support system. The need for social workers to have experience working with stroke patients and support systems is necessary, due to the number of people who will experience a CVA. A social worker is a great asset for a patient and the support system of said patient due to the unique nature a social worker examines the challenges a patient experiences. Medical doctors and neurologists present a great asset to the patient as identification of the physical challenges presented by stroke have a large impact on outcome for the individual in regards to rehabilitation (Fundukain, 2011). However, as aforementioned, behavioral health and mental health rehabilitation are services which appear to be at a deficit for the rehabilitative services to stroke patients. As clinical social workers are one of the larger populations providing mental health resources, it is important for social workers to identify another subset of the population who need rehabilitative services.

Potential Implications for Social Work Practice, Policy, Further Research

Rizzo (2006) found that the CVA patient cases in her study revealed a moderate patient improvement when being paired with social work services, as well as a decrease in the cost of the patient to the hospital. This also asserts that the patients demonstrate some marked improvement in situation when working with a social worker. One area the research aimed to address was of ways a social worker could better the situations of the patient's care system. For example, after a stroke patient leaves hospitalization, do patients and care system still retain a number of questions and concerns they want answered about the new medical condition, or symptoms which may arise months later? These concerns may be marginally discussed during hospitalization. However, if some questions and concerns are left unaddressed for the patient, could a clinical social worker address these concerns, in addition to their other responsibilities to the patient?

Purpose of Study/Questions to be Answered

The overall basis for this study was to determine how frequently stroke patients and their corresponding care systems meet with social services, how effective are social work meetings at reducing mental health systems for patients as well as caretakers, and whether or not any of the hospitals or clinics studied have a required or recommended social work intervention for such situations.

The research question for this proposal was to identify the challenges and interventions experienced by stroke patients as viewed from a social work perspective. The researcher interviewed hospital social workers practicing with patients who have experienced a stroke, in order to gain more insight into what the social workers view as best practices.

Literature Review

The literature regarding CVA, including general demographics, impact on patients, and the implications Social Work practices have with said patients will be discussed. Topics will also include how a CVA may impact mental and physical health in a patient, socioeconomic and relational stressors, as well as the impact CVA presents with various resources.

General Information about Cerebrovascular Accident (CVA)

According to the Gale encyclopedia of medicine (Fundukain, 2011) a cerebrovascular accident (i.e.: CVA) is a situation when blood flow to the brain is stopped for a period of time. The blood flow can stop to any number of places in the brain, based on what artery or blood vessel is blocked. Due to the different part of the brain being impacted, a multitude of different symptoms can occur: memory problems, physical challenges or paralysis, cognitive and personality changes, balance and coordination problems, speech challenges, et cetra (Fundukain, 2011). According to Gale (Fundukain, 2011), a stroke or CVA can result from one of four types: cerebral and cerebral thrombosis, which is a block in an artery supplying the brain with blood, as well as a subarachnoid or intracerebral hemorrhage, which is when an eruption or burst occurs within the blood vessel. A cerebral embolism or thrombosis are a much more frequently occurring variety of CVA, accounting for more than 70% of all CVA incidences (Fundukain, 2011). A preceding occurrence to a cerebral embolism or thrombosis is what is called a transient ischemic attack, or TIA, in which the blood supply is temporarily cut off from the brain, and stroke-like symptoms occur, but tend to go away within a short amount of time (Fundukain, 2011). TIA's are reportedly a frequent precursor to experiencing a CVA, so if a person happens

to experience stroke-like symptoms, it is highly advised that the person seek immediate medical attention in order to prevent more damage (Fundukain, 2011).

According to the Gale encyclopedia (Fundukain, 2011) a stroke or CVA occurs to approximately a half million citizens in the United States each year; impacting males aged 65+ the most frequently. Over 160,000 CVA patients die from the situations; almost one-third of all stroke attacks, and stroke attacks are the third most prominent reason for death in the United States (Fundukain, 2011) Stroke attacks impact African American citizens more frequently than any other ethnicity, and the instance of death in this subpopulation is the highest rate of occurrence (Fundukain, 2011).

Caplan and Moelter's (2000) study also makes assertions and identifies about what happens to a patient when they have strokes in different regions of the brain. Caplan et. Al. (2000) goes into greater detail about what the rehabilitation and assessment methods are most beneficial to stroke patients, as opposed to describing in diagnostic terms of what has medically changed with the patient. The functioning of a patient who has experienced stroke or CVA is discussed in topics of psychological assessment, acute assessment, acute rehabilitation, neuropsychological disorders and rehabilitation, impaired awareness, emotional disorders, interventions with family and staff, and post acute assessment (Caplan et. Al., 2000). One interesting assertion in the Caplan literature (2000) is that there is presented evidence to suggest that "...psychosocial disabilities were more common than physical ones following stroke" (p. 88). The literature describes enlisting the help of a stroke psychologist in educating family and support systems, medical staff, treatment teams, as well as advise the treatment and discharge plan of the patient based on their specific clinical presentation (Caplan, 2000). The literature also goes on to describe portions of hospitals which are designed to specifically target patients who

have experienced stroke and CVA; the literature suggests that the quality of life for these patients five years post-stroke is statistically better than for patients who received treatment for their emergent issues within a general hospital setting (Caplan, 2000). The assessments administered to the medical setting are manufactured to take in the general cognitive function of the average stroke/CVA patient, (i.e. an older or elderly adult) as cognitive decline generally occurs with older patients (Caplan, 2000). Caplan's literature also asserts common psychological changes which occur in stroke/CVA patients, including the fear of impending further strokes, death, self-reliance, dignity and a myriad of other concerns (2000). The condition known as post-stroke depression, also known as depressive disorder due to a general medical condition (APA, 2013), varies in patients who have experienced stroke/CVA, estimating that somewhere between 29-79% of these patients will experience some form of depression, either from physical alterations to the brain, cognitive changes about the patient's situation, or a combination (Caplan, 2000). There are several negative impacts on patients who experience post-stroke depression: extra time spent hospitalized, increased challenges returning to their typical lives, and a decreased level of functional recovery (Caplan, 2000). In addition to post-stroke depression, symptoms of anxiety and agoraphobia were frequently diagnosed in patients post-stroke; most frequently observed was generalized anxiety disorder at 24%, and agoraphobia in approximately 7-8% of patients (Caplan, 2000). According to the literature, more research has been completed in the field of post-stroke depression, as themes of the patient parts of their former self, but there has been less study about post-stroke anxiety (Caplan, 2000). Caplan states that anxiety generally results from changes in daily living functioning and the amount of change in a person's social and conversational skills. It is mentioned that supportive counseling and problem-focused

discussions can help to decrease anxiety symptoms, but the treatment of post-stroke anxiety is not as heavily studied a topic as post-stroke depression (Caplan, 2000).

Ros (2009) describes the different portions of the cerebellum, as well as what the different portions and pathways complete for human behavior. Cerebellum is made up of different “lobules”, and how each one has a particular job to help human functioning. Asserts that right hemisphere cerebrovascular accident can manifest behavioral and personality changes, in decreasing inhibition. It also references that the cerebellum is made up of outer gray brain matter (slower, less likely to heal) and inner white brain matter (faster, more likely to heal).

CVA and Stroke

Sila and Schoenberg (2011) give a detailed account of the impact of cerebrovascular disease and stroke. They describe the different types of stroke: ischemic, or a loss of blood flow to a specific part of the brain, and hemorrhagic: an eruption or burst in a blood vessel, causing a bleed on the brain (Sila et. al., 2011). In addition, Sila’s literature details each segment of the brain, and what behaviors, both cognitive and physical will likely demonstrate change if a certain area of the brain is impacted by stroke/CVA. The most striking information to the researcher is the notion of rehabilitation and recovery in cortical tissue and patient functioning after a stroke/CVA. A large percentage of a patient’s functioning will improve as much as possible during the first three to six months post stroke/CVA (Sila et. al., 2011). Some rehabilitation and improvement can occur between six and 12 months, but this is generally viewed as adaption, extensive resources, and increases beyond 9 months post-stroke are positively correlated with a younger aged patient (Sila et. al., 2011). According to Klinedinst et. Al., (2006) there is also a

correlation between the levels of education a CVA patient has ascertained; over 70% of the patients in her study reported as having gone through at least some college education.

Alternative factors in the amount of recovery that a patient may experience is based on what kind of cortical tissue was impacted; cortical white matter is more likely to recover, whereas brainstem and midbrain matter is less likely to recover (Sila et. al., 2011). Sila et. al. (2011) also assert that the most frequently occurring emotional changes that occur in a patient who has experienced stroke or CVA would be symptoms of anxiety or depression; it's asserted that patients who experience a left-hemisphere stroke have symptoms which present with depressive symptoms, and patients who experience a right-hemisphere stroke demonstrate flat emotion. Right hemisphere stroke patients are also reported as presenting more frequently with symptoms of perseveration, as well as symptoms of paranoid thinking (Sila et. al., 2011). One difference described in the literature regarding symptom longevity and onset is that left-hemisphere patient symptoms tend to resolve over time, whereas the mental health symptoms of a right-hemisphere stroke patient are less likely to resolve over time (Sila et. al., 2011). When a patient experiences a stroke on the left hemisphere of the brain, the right side of the body is impacted; a right hemisphere stroke will affect the left side of the body in the patient.

Mental Health Post Stroke

With the changes in cortical matter in the brain due to physical change and trauma, frequently so too does a person's cognitive functioning and mental health. Ukei et. al. (1999) studied 47 subjects and administered a General Health Questionnaire (GHQ) to find out what part of the patient's life was found to be the most debilitated and changed due to the stroke. The subjects were studied between two and three years after their stroke, and then were administered

the GHQ. According to the results of the questionnaire, over 38% of the participants marked ratings above 17, which indicated a presence of a mental health problem in the patient's life (Ukei et. al., 1999). The variables studied in the questionnaire were the patient's age, sex, grade of motor paralysis, side of motor paralysis, paresthesia, rehabilitation, social support and overall physical recovery (Ukei et. al., 1999). One of the assessment tools for the research was having the patient indicate on a plane where patient interpreted their physical recovery was, rating the recovery either a one, two or three (Ukei et. al., 1999) The results of the study analysis indicate that the largest predictor of mental health problems in a patient's life is the patient's rating of their subjective assessment of their recovery from the stroke. A significant portion of a CVA patient experience and mental health status is derived from their own subjective experience of the situation (Ukei, 1999). The largest predictor of improvement and recovery to the patient was identified using the patient's own interpretation of their situation. This literature demonstrates an importance and benefit to the patients for practitioners and professionals, both serving in mental and physical health, to view the patient as the expert in their own situation, and use the patient's assessment to identify a treatment plan.

Stroke: Issues in Recovery and Rehabilitation

Riddoch et. al. (1995) completed a meta-analysis of various clinical research regarding interpretation of crucial issues found to be best practice for the stroke/CVA patient. The study examined general demographics of stroke patients' in the United Kingdom, indicators of recovery for patients after stroke, the efficacy of current stroke rehabilitation, the consequences of stroke on the patient, and questioning the validity of current methodology in the treatment of stroke patients (Riddoch et. al., 1995). Based on all of the factors examined, the study indicated

that efforts in treatment planning should be created to suit the needs of individual patients, rather than using global interventions. The study also suggested that the treatment of stroke patients, and studies for rehabilitation should be completed by case by case/case study analysis (Riddoch et. al., 1995). This style of treatment planning and study could be beneficial to stroke/CVA patients for a number of reasons. Each stroke/CVA tends to be completely different for each patient; blood loss impacting an area of the brain one millimeter from the impact point of a different patient can yield completely different physical and cognitive ramifications (Sila et. al., 2001, p. 301). As each area of the brain serves a different function to the human body, (Sila et. al., 2011) each symptom and treatment plan too should be planned and viewed on a case by case basis. Despite a patient primarily presenting with a physical impairment of a stroke, they could also be experiencing a change in cognition and functioning, but it may not be as apparent to the practitioner (Riddoch et. al., 1995). Riddoch et. al. (1995) also asserts that "...psychological systems have a natural tendency to compensate for component limitations and therefore have an important role to play in rehabilitation." With this idea, patients who have experienced stroke/CVA could then be viewed through the lens of a strengths perspective, whereas the practitioner could assess what part of the patient's brain hasn't been impacted as greatly, and target interventions utilizing this area more in order to help strengthen areas of greater impact.

Work Loss Following Stroke

As a larger percentage of patients who experience stroke/CVA are generally older, less attention has been given to younger stroke patients (Sila, 2011). With younger stroke patients, quality of life ratings have been correlated directly with whether or not the patient was able to return to work or not (Gabriele & Renate, 2009). In addition, the fewer cognitive changes were

presented for a patient post-stroke, the more likely that patient was to return to work (Gabriele et. al., 2009). This study compared patient's ratings of quality of life for 463 patients who either returned to work or were unable to return to work post-stroke. The findings indicated that not all patients who did not return to work failed to return as a result of their impairment; as a majority of stroke patients are older, many chose early retirement rather than returning to work (Gabriele et. al., 2009) However, the self-described quality was different for younger patients who did and did not return to work. The quality of life rating was diminished for the younger patients who did not return to work after one year than it was for the patients who did return to work after one year (Gabriele et. al., 2009). The research also assessed spousal quality of life ratings with lifestyle changes for the spouse after stroke/CVA. The statistics demonstrated that the spouse's ratings of quality of life had diminished as well, due to new responsibilities: caretaker role, financial provider, possible loss of future choices, et cetra (Gabriele et. al., 2009). With the negative impact of stroke on how patients and their spouses live post-stroke, it appears that it would be beneficial for social workers and treatment planners to identify what efforts can be made to help these patients and families return to as normal a life as possible after stroke. Since contribution to personal independence and dependence of family is impactful on quality of life, finding ways that a stroke patient can lead a life as close to the life they formally had appears to be critical to stroke patient's quality of life.

Summary of Literature Review

With the existence of various areas of concern for a patient who experiences CVA, as well as the support systems of the patient, there exists several areas of concern. These areas of concern are situations to be identified by both practitioners of medical and psychological

emphasis. The literature suggests that the functioning of a CVA patient is impacted by the physical changes in the brain. But the changes in the brain produce significant changes in mental health and psychological functioning. It is important to the care continuum of patients for professionals to identify how the psychological and mental health changes will change the patient's functioning. As aforementioned, many of the psychological and mental health changes can go unidentified. With this in mind, it is important for social workers to identify these changes, and to identify ways in which the stress of these changes can be alleviated. Targeting the identification of mental health and cognitive dysfunction in CVA patients could help to produce a better quality of life.

Conceptual Framework

Ecological perspective

As a stroke, cerebrovascular accident (i.e. CVA) or traumatic brain injury (i.e. TBI) can impact a person in an instant, so too can all of the support systems in the patient's life. For example, a person who has experienced a CVA/TBI and is now bilaterally paralyzed may need 24-hour care, and be unable to financially provide for themselves or their family. This could make the patient's inside system become the outside system, if the patient was the sole monetary provider for the inside system. Inside system is defined by Hutchison (2008) as the patient's immediate family or care system. Conversely, the outside system is a reference to groups that the patient is part of outside of their immediate family (Hutchison, 2008). For example, a patient's outside system could involve groups such as a patient's place of employment, education, religious systems, et cetera. This event could also impact both going forward through time, as financial changes could occur, family plans could be altered, and grieving of a foreseeable life may no longer be a possibility. As all the systems in a person's ecosystem could be instantly altered due to stroke, the conceptual framework may be one of the more important Social Work lenses from which the research should be viewed. Viewing a patient through the ecosystem model is important, as the percentages of patients having little lifestyle change post-stroke is no greater than 10% (Fundakin, 2011). A stroke patient may need help moving around the house, completing activities of daily living, or managing symptoms of change in mental health functioning. So too could cognitive functioning change, which would increase the necessity of assistance in functioning from others. Viewing a patient in the context of how the patient experiences interactions from all support systems around them is why it is important to use the ecological perspective when conducting this research.

Cerebrovascular accidents (CVA), strokes or traumatic brain injuries (TBI) can impact a person's life in a variety of different ways. These medical experiences generally are not only felt by the individual, but also felt within the systems that the individual is part of. In this study, the researcher used the works of Miley, O' Melia and DuBois (2011), who describe an individual within that patient's ecosystem: "...to comprehend human diversity and explicates the relationship between humans and their environments. The views of human systems as structural, interactional biopsychosocial, and cultural entities offer a comprehensive and sometimes complex understanding of system behavior." Miley et. al. (2011) describes the need to find the "focal point" within the case being studied. In the case of someone experiencing a CVA or TBI, the main focal point would be the patient who has experienced the medical situation. However, depending on the depth of impact the medical condition presents, the support system of the patient may become permanently integral to the patient's life. Miley et. al. (2011) identifies viewing the patient's systems from five lenses: identifying the focal system, identifying what has happened inside and outside the support system of the patient, as well as how do the inside and outside systems connect, and how does the system move through time.

As the primary system being impacted when a patient experiences a stroke, CVA or traumatic brain injury (TBI) is the patient and their support system. Research will be examined from the view of the support system or family using the ecological perspective. Per Hutchison (2011), the ecological perspective examines the behaviors and thoughts of an individual within the context of the systems and groups of people with which the individual identifies themselves as the system of analysis. This perspective studying a person's system as unit of analysis is further precipitated by examining the person's family or support system. After experiencing a stroke, CVA or TBI, the individual can have various parts of their life impacted, but most

frequently the individual in context to their family and support system incurs the largest impact. As Hutchison (2008) asserts, "...social systems are thought to be orderly and remain in a relatively stable state, also known as *homeostasis* or *equilibrium*. Each part of the system serves an essential function in maintaining the system and the functions of the various parts are coordinated to produce a well-functioning whole." After a stroke, a patients' role, as well as the roles of others within the individual's systems may significantly change based on the individuals post-stroke functioning. A role is defined as "...the usual behaviors of persons occupying a particular social position" (Hutchison, 2008). If the individual post stroke is partially paralyzed, has cognitive deficits, has a personality change, experiences depression or anxiety, the role of the individual, as well as the roles of the other persons within that system can change drastically. Hutchison (2008) goes on to discuss how connected all the members of a system can be, and how patterns or behaviors are maintained and/or impacted when a person is impacted by the experienced medical condition.

The ecological perspective was used to orient the research, as the information ascertained from the subjects not only reflect on the insight of the practitioner, but also the interpretations the practitioner gained from the patient and the support system of the patient. As the research aimed to understand what interventions are beneficial to working with a patient who has experienced a CVA, it is also beneficial to understand what the participants viewed were best practice interventions when working with the specific patient. The ecological perspective was helpful in understanding the patient from this lens, as well as all the supports and systems that help this patient.

The ecological perspective was used to help in the creation process of the interview items. The emphasis of the research was to ascertain what aspects of the coordination of care

hospital social workers find to be most beneficial for stroke patients, as well as the support systems of said patient. The ecological perspective helped the researcher create questions to help identify topics viewed by participants as critical to rehabilitation by the patient and support system. Looking at the rehabilitation process from the view of the patient, the support system of the patient, as well as the larger culture from which the patient comes from will help to identify critical areas and principles necessary to rehabilitation.

The researcher decided to ascertain information from the participants via a qualitative study for a number of reasons. The information gathered from participants via their own language assisted in gaining more insight to the patient situations via the social workers. Another advantage to completing a qualitative study for working with this population is in regards to the unique nature which each patient experiences. As Sila and Schoenberg (2011) assert, strokes can occur as a result of arterial blockage or arterial hemorrhage, and impact any area of the brain, from the most basic portion of the brainstem, to the advanced functions of the prefrontal cortex. Not only does each region of the brain have a vastly different function, but so too does each partition of each segment. If the participants are able to recall the outcomes of patients based on the portion of the brain impacted, the planning of after stroke care could be assisted as well. The qualitative method was used in order to increase the detail and richness of the participant's responses. Interviewing the participants rather than having them fill out a survey provided greater context and detail about their experiences serving stroke patients.

Methodology

Research Design

The researcher utilized a qualitative research study design for collecting and examining the data. This exploratory research design aimed to identify criteria necessary for hospital social workers to intervene with a CVA patient and family. Through the qualitative interviews of said social workers, the research aims to find out what factors and symptoms are most influential in further investigation of the patient. This also includes identifying what mental health symptoms are most frequently exhibited by the patient to yield further interventions by a social work professional or practitioner. The overarching question behind this research is: what symptoms do stroke patients present in order to meet with a physician as well as a clinical social worker? The literature regarding the challenges of identifying post-stroke depression was used in order to identify and formulate this research perspective.

Interviews with hospital social workers were conducted. The researcher utilized a schedule-standardized interview with the participants, using the same questions and order of questions for all interviews. The researcher created a questionnaire containing both open-ended and closed-ended questions in order to survey the perspective clinicians.

Research Setting

The researcher interviewed a variety of hospital social workers from hospitals throughout the Twin Cities metropolitan area. If participants wished not to use their work environment for the interview, an alternate location was established for the interview.

Sample

The researcher interviewed licensed hospital social workers in order to gather information regarding the protocol for serving clients admitted to a hospital for treatment of a stroke. The research was completed in order to find out criterion a patient must be categorized under before the patient was seen by a social worker.

The researcher used snowball sampling to find research participants. The participants were licensed social workers currently practicing social work in a hospital setting. The researcher completed an Institutional Review Board (i.e.: IRB) application through the St. Catherine Universities' IRB, in order to ensure the participants would not be harmed by participating in the research project. The inclusion criteria for identifying potential participants are that participants are a current licensed social worker practicing within a hospital setting at a Twin Cities hospital.

The two social workers on the research committee agreed provided referrals for hospital social workers who fit selection criteria. Committee members contacted potential participants using the researcher's email/flyer. These potential participants who were interested contacted the researcher. Participants were asked to contact additional potential participants and provided an email/flyer to hand out.

Protection of Human Subjects

The researcher developed a consent form to give to each participant of the study. The consent form was approved by the St. Catherine Universities' IRB, as well as by the research chair. The entirety of this study was reviewed by the St. Catherine University IRB. During committee meetings, the researcher, research chair and committee members created a list of possible subjects to be interviewed for the research project, as well as possible sources of subject

identification will also be discussed. The consent form addressed the researcher's name, contact information and credentials. The consent form also lists the topics being covered; the intended procedure of the interview, an approximate length of time the research will encompass, the potential risks and benefits to the participant, a confidentiality notice, and contact information in regards to the research chair supervising the researcher. Confidentiality was maintained by the use of case numbers for each participant, rather than by name. No names of any participant were used in the final written product. Transcripts were created and maintained on a password protected computer. Information collected during the interviews were destroyed on or before May 14th, 2014.

Instrument

The instrument used to identify information during the interviews was in the form of a 17 item questionnaire. The instrument included six demographic questions in order to identify background information about each participant, and 11 open-ended questions exploring the unique situations for patients each participant has encountered. Demographic information was identified during the first portion of the interviews, and largely pertained to the types of Social Work each participant has served. The subjects of the demographic questions included current and historic cultures of patients served, number of stroke patients served, type of stroke experienced by patient, and resources given to the patient and patient support system. The questions were created through the collaboration of the researcher, the research chair as well as the research committee members. The open-ended questions were identified using the information ascertained through the review of literature about stroke patients.

The topic areas of the open-ended portion of the interview included areas of the patient's life impacted by stroke, list of resources given to patients, mental health symptoms experienced by the patient, patient requests for medication or mental health therapy, mental health screening used with the patient, mental health concerns expressed by the caregiving system of the patient, inclusion of multidisciplinary teams to the treatment of the patient, pervasiveness of social work services to the patient, and finally supportive counseling services presented. A copy of the items used in the interviews can be seen in Appendix B.

Data Collection

Data for the research was collected by the use of a schedule-standardized interview containing a combination of open-ended and closed-ended questions. The researcher obtained research participants by way of snowball sampling. This method included asking the research committee members during a committee meeting if they knew of any practitioners who would be good candidates for the research sample. Once the potential participants were identified, the researcher asked the participants to identify any other practitioners who could be additional participants, and so forth. The survey/questionnaire was developed by the researcher by review of literature pertaining to the topic of CVA and mental health symptom presentation in the hospital setting. Themes of the survey focused on clinical concerns a patient may present when experiencing CVA, and compared against symptom presentation of panic/agoraphobia. At the beginning of each interview, the researcher used several sensitizing, information-gathering questions and leading questions in order to assess the experience and background of each participant. Each interview was audio recorded, and subsequently transcribed for theme identification. After each transcription process, the researcher deleted each interview in order to

protect confidentiality. The type of stroke cases that participants tend to encounter are areas which were assessed during interviews.

Data Analysis

The researcher analyzed the data using a descriptive phenomenological approach (Berg, 2012) in order to identify the themes, sub-themes and manifest content of each interview. The coding of each of the themes will be described in the future once themes are identified.

The researcher planned to enlist the help of a research assistant to help identify themes and sub-themes presented by the participant. In addition, the research questions and items were reviewed by the research committee members, and the committee chair.

Bias

The researcher identifies several possible areas of bias within the field of study, as well as possible bias during the creation of the survey. As someone who has received hospital services for a stroke and symptoms of a panic attack, it will be especially important for the researcher to have several sequences of review for the survey items and questionnaires. This will help to ensure limiting the impact personal bias presents to the research. The impact of symptoms from the CVA, as well as the ramifications of mental health symptoms present as historic challenges to the researcher. Every possible way to limit the impact of personal history from presenting as bias of the research will be made. The main goal of this research process is to find what interventions and steps should be taken in order to do the most good for the greatest number of patients who have experienced CVA or TBI. Limiting personal bias during this process will be of great importance in order to ensure objectivity during the research process.

Personal bias also presents as some possible help to the research process, as it presents as sensitivity to key issues patients experience post CVA. The experience of CVA also presents as insight for what other possible ways social workers could intervene with this population.

Findings

Sample

The sample for this study was comprised of four licensed female social workers who are currently employed at three different Twin City metropolitan area hospitals. There were a total of 13 participants contacted by the researcher; 8 were contacted from the initial gathering of sources from committee members, and five were referrals made by interviewed participants. Length of time varied amongst participants; the length of time for clinical years experienced varied from two years, to over 22 years. Initially, over 10 research participants were asked for their participation for the research, but only one participant responded. However, from this participant, others were identified via the snowball sampling method, and were then interviewed. The researcher was provided other referrals from colleagues and supervisors, which provided more participants. Interviews were completed between 3/20/14 and 4/10/14. Questions one through six on the interview assessed the participant's current area of social work practice, previous areas of social work practice, previous client populations served, number of clients served who have experienced a stroke, type of stroke experienced by the patient, and resources provided to the patient. The following tables demonstrate participant's responses to questions four and five of the demographic section.

Participants reported serving a variety of numbers of patients; the responses ranged from 100 to 1000-plus patients. Item five of the demographic section asked participants to identify what type of strokes the patients had experienced. Three of the four participants identified working with patients who had experienced all types of strokes listed in the item; the fourth was confident she had served all types, but wasn't absolutely sure.

Themes

As mentioned in the purpose of this study, the aim of the interviews was to identify in what ways licensed hospital social workers meet the concerns presented by stroke patients and their support systems. The concerns were identified as abilities to identify and treat mental health symptoms in patients, concerns experienced by the patient's care systems, and whether or not there is a standard social work assessment or tool provided by social workers when working with stroke patients.

The themes generated by questions six, eight, 10, 11, 12 and 16 did not generate any themes which corresponded amongst all of the different participants. Question eight created lists of resources the social workers provide to their stroke patients, and largely varied amongst participants. Question 10 asked whether or not patients or care systems reported symptoms of panic attack or agoraphobia, which provided no similar themes. Question 11 enquired about whether patients or care systems requested medication for mental health symptoms, and each participant had varying responses as well. Question 12 identified whether or not participants received requests for mental health therapy from patients or care systems; responses were quite varied. And finally, question 16 consulted about ongoing services to patients and care systems provided by the participants. The participants responded with varying answers, which did not produce an overarching theme. The items which did present themes are listed in the following themes. Each of the remarks from participants listed in the subsequent tables were quotes taken from the interviews.

The next theme participants identified was that all stroke patients received resources and referrals from hospital social workers. The most common resources and services administered during a hospital stay were physical therapy, occupational therapy and speech services. This question was initially considered to be a demographics question, but three of the four participants identified themes in their answers:

Table 1.)

<p>6.) When a patient experiences a physical paralysis, what resources did you give to the patient or support system?</p>	<p>Participant Two: <i>So those would be resources where we would have evaluations by occupational and physical therapists. A lot of patients I would send to rehabilitation unit, transitional care unit in nursing homes, or a more acute level rehab setting, like a sister Kenny institute or (indistinguishable) rehab. (Transcript #2, page #9).</i></p> <p>Participant Three: <i>So here in the hospital, they get PT, OT and speech; those are the primary therapies they get while they're in the hospital. (Transcript #3, page 16).</i></p> <p>Participant Four: <i>So when they're here in the hospital it's a really short time, and so we don't have a lot of time to give resources but typically what happens is the day after they come in PT and OT start working with them, speech if they need it. (Transcript #4, page #22).</i></p>
---	---

The following items asked participants to identify more detailed information about the specifics of the patients. When asked about how patient's lives have been impacted, participants identified that patients experienced physical impacts and changes, as well as a negative impact on the patient's ability to remain independent, or to return to what they defined as "normal life".

Table 2.)

<p>7.) In what ways has the patient's life been impacted post stroke?</p>	<p>Participant One: <i>So, full disclosure, right now in the last 5 years, 10 years working with this population, most of my patients have severe physical and severe cognitive deficits from their brain injury or stroke.</i>(Transcript #1, page #2).</p> <p>Participant Two: <i>...and the ability to go back to their home. Like one patient, his wife was working on selling their home because it just wasn't going to be a possibility to return to that well below functioning.</i> (Transcript #2, page #10).</p>
	<p>Participant Three: <i>They may be out in the working world and so they feel that, you know, now I can't go back to my job right away; I'm going to need time to do rehab and get myself stronger to be able to work. A lot of these people with strokes are greatly impacted so they see the outcome as 'I may never be able to do this again'.</i> (Transcript #3, page #16).</p> <p>Participant Four: <i>There's people that come in who were totally independent, and they have a huge stroke or aneurism and they can't work anymore; they don't have anybody to care for them; they don't have insurance so now they need rehab and don't have a way to get it and everything.</i> (Transcript #4, page #22).</p>

Item 9 in the questionnaire asked the participants to reflect on mental health symptom presentation by the patients served. Three out of four participants identified that the most frequently occurring mental health symptom was depressive symptoms.

Table 3.)

<p>9.) Have any post-stroke patients encountered mental health symptoms? If so, what were some of the symptoms:</p> <p>What are the most frequent symptoms presented?</p>	<p>Participant One: <i>Depression is very common, and I think situational oftentimes. It gets back to what we talked about: the adjustment to the new norm of disability.</i> (Transcript #1, page #4).</p> <p>Participant Three: <i>But the ones we do see here I would say is we see a lot of depression.</i> (Transcript #3, page #17).</p> <p>Participant Four: <i>People can be more prone to depression and anxiety from the stroke, and so that's something that everyone kind of watches for.</i> (Transcript #4, page #24).</p>
---	--

Item 13 was asked of the participants to identify mental health screening interventions which they provide for patients while hospitalized. Three out of four participants identified that during their initial social work interviews, the participants do ask patients and care systems whether or not they have identified mental health symptoms in the patient.

Table 4.)

<p>13.) For working with post stroke patients, do you provide any type of mental health screening?</p>	<p>Participant One: <i>I assess for that... We do also have a grief and loss assessment; it's an informal tool that we can use to look at the support... I do some assessment, some more formal assessments with our initial assessment about mental health history...</i> (Transcript #1, page #5).</p> <p>Participant Three: <i>Usually during our SW assessment, so that's the initial assessment that we do with our patients, were trying to ID you know is the patient going to benefit from any mental health services while they're here... but just in talking with them during this initial assessment we try to ID any concerns that they may have or anything that</i></p>
--	--

	<p><i>they'd benefit from, so one of those would be mental health services. (Transcript #3, page #18).</i></p> <p><i>Participant Four: ... the staff up here is pretty attuned to what to look for, and so if somebody is just withdrawing and not wanting to do anything or if they're yelling out or crying. Or talking with the families, if they're behaving in a way that's not "them", or normal to them, then we'll kind of look more at the mental health piece of it. Yea, and we meet at team every morning so as we're talking about patients, the psychologist says 'that sounds like they'd be at risk for depression/this is what put them at risk' he would see them, like I said before, just to educate them and to keep on top of it. (Transcript #4, page #26).</i></p>
--	--

Item 14 assessed whether or not participants observed concerns about the impact of the stroke from the patient, the patient's care system or a combination of the two. The theme identified by participants is that concerns are generally presented by both parties, based on the impact of the stroke on the patient.

Table 5.)

<p>14.) Are the mental health concerns presented by the patient, or the patient's support system?</p>	<p><i>Participant One: I would really say pretty close to half and half. It really depends on the level of deficit for the patient or what disability...are they even able to ask for that...they present signs and symptoms maybe that we see, or can verbalize or request services, but quite a bit of the time...at least half of the time its families/support systems. (Transcript #1, page #6).</i></p> <p><i>Participant Three: We just go in together and meet with the patient, or patient and family,</i></p>
---	---

	<p><i>and kind of really get down to what it is that they want to set as their goal. (Transcript #3, page #19).</i></p> <p><i>Participant Four: Probably the support system. Just kind of noticing that they're not themselves or they're behaving in a way that's not congruent with their personality. (Transcript #4, page #26).</i></p>
--	---

Item 15 identified the amount of multidisciplinary interactions created on behalf of the patient. All four participants reported positive, helpful working relationships between social work and other disciplines.

Table 6.)

<p>15.) If the patient is under the care of a medical doctor, do social work and medicine connect to complement one another's service?</p>	<p><i>Participant One: We have a very good partnership between the social workers and the physicians. And an interdisciplinary team that works well together. Which includes therapy, respiratory therapy, pharmacy, psychology psychiatry primarily the specialists... (Transcript #1, page #6).</i></p> <p><i>Participant Two: ...yep, absolutely, we very much functioned as an interdisciplinary team. I worked with a nurse care coordinator who would round with the doctor... we round weekly for our patients. But yeah, certainly there was a lot of communication involved...and yeah I think certainly the doctors would pull you in, or pull me in on cases where if we needed to have a family care conference or something like that. (Transcript #2, page #12).</i></p> <p><i>Participant Three: Yep, I feel like I am talking to the doctors on a regular basis... And we work really close with the medical doctors, and it's not just the internal medicine doctors, but neurologists, neurosurgeons...I mean we have a variety of different people. We work</i></p>
--	--

	<p><i>really closely with oncologists as well, if a patient has a brain tumor up here. (Transcript #3, page #19).</i></p> <p><i>Participant Four: Maybe not necessarily with all the doctors, but all the doctors up here are approachable, and we'll just page them or call them if we have any questions, so we stay in contact with them... (Transcript #4, page #26).</i></p>
--	---

Finally, item 17 addresses the number of supportive counseling services which are presented to the patient and support system to be accessed. Each participant identified different support services, but hospital social workers in each of these settings do provide a plethora of supportive counseling services to patients and their support systems. The different services are listed in the following table. Services provided and referred to patients and care systems included grief support groups, mental health therapy, psychotropic medication evaluation, and education about the impacts of a stroke.

Table 7.)

<p>17.) Are any supportive counseling services (I.E.: therapy, grief support, psychoeducation, etc.) presented to the support systems? If so, what types of services:</p>	<p><i>Participant One: We have a brain injury support group, and it is going on currently... we've had some patient support groups that have gone well, but then also an emphasis on family, so with families, we've done a combination of the two, we've done outpatient services to keep connected with impatient, pulling in the brain injury... and there's brain injury support groups for patients and families of brain injury patients. (Transcript #1, page #7).</i></p> <p><i>Participant Two: I think the only thing would be there were some patients where we were referring them to (indistinguishable) care so kind of that different supportive</i></p>
---	---

	<p><i>environment... So then I think the focus really is on the family as well as just not the patient. (Transcript #2, page #13).</i></p> <p><i>Participant Three: Yep, usually we're trying to present them with understanding of what a stroke is... The psychologist does a lot of the counseling part of it...some of our patients need to be seen with an outside psychologists, and we give recommendations to them about, you know, you should follow up with so and so regarding your concerns, because we don't do a lot of the aftercare...so trying to educate them on what they'd benefit from in the community and getting those services for them while here. (Transcript #3, page #19).</i></p> <p><i>Participant Four: ... it's more for the community. I know ***** has some support groups. And there are support groups for caregivers through the brain injury alliance also... And I think they really rely more on the staff here for support while they're here. (Transcript #4, page #26).</i></p>
--	---

Another theme identified by two of the participants during the interviews was challenges in the ability to communicate between patients and social workers due to the effects of certain types of stroke. No specific interventions or assessments were listed by the responding participants, but general concern was presented by some of the participants. One participant reflected that her interventions with a patient consisted of hand-written messages between the two. Another participant remarked of observed anxiety in patients who lost the ability to speak and communicate as a result of experiencing a stroke. The topic of finding a way to communicate with patients who have lost the ability to communicate in ways they once had is another important topic. As much of social work intervention comes via communication, the inability for a patient to communicate is a serious area of concern. This theme was generated by

comparing participant responses across questions. An example of this theme is demonstrated in the following quote: *... a lot of the patients that aren't able to communicate...it's us trying to get ways to...so I can ID one patient that we worked it out by, he just wrote out things down and maybe. And so he had wrote down not feeling well, I think was the comment he used. And so writing back 'Need to see medical doctor?' and he wrote 'no' and so we communicated back and forth. Really he just needed someone to talk things through.*

Discussion

The purpose of the research study was to identify how hospital social workers interact with stroke patients, and to find out how these social workers are working with symptoms of mental health being experienced by the patients. The themes generated identified that these social workers identified mental health symptoms in the patients, but largely referred out mental health services once the patient was discharged from the hospital.

Sample

The sample of participants was quite representative of the study population, as the research was conducted only of social workers working with stroke patients within a hospital setting. The sample was representative of the typical hospital social worker providing services to a stroke patient, as the participant's roles were similar to one another. All participants identified collaborating within multidisciplinary teams in order to identify all of the deficits the stroke has created for the patient. All of the participants identified referrals to occupational, physical and speech therapists in order to better identify the patient's new level of functioning.

The characteristics of the sample may have created impact on their responses due to the type of hospital served. Three of the four participants reported working with patients who present to the hospital emergently, and stayed connected to the patient until discharge. The average discharge reported by these three participants was anywhere from three to ten days after admission. The fourth worked in a longer term setting, where the patient's average stay was three to six weeks. The characteristics of their answers could be different, as three of the four participants had much less time to work with each patient. The fourth participant could then have

had more time to provide services, recommendations and resource identification on behalf of the patient.

Discussion of Themes

All four participants asserted that physical deficits and loss of independence were areas of most concern, and the literature articulates that strokes are one of the most frequently occurring medical conditions leading to long-term disabilities in patients (Klinedinst et al., 2012). These remarks also coincide with the assertion by Riddoch et. al. (1995) that over approximately 90% of patients who have experienced a stroke will require some form of intervention.

Another theme articulated by three of the participants was of the significant presentation of mental health symptoms, including depression, delirium, confusion and behavioral changes. This correlates well with Klinedinst's assertion that one of the most common mental health presentations in post stroke patients is post-stroke depression (2012). This theme also resembles statistics provided by Hackett et. al. (2006) approximately one-third of stroke patients will experience some form of depression after the stroke.

A reassuring theme presented during the interviews was that all four participants work closely with an interdisciplinary team in support of stroke patients. The collaborative efforts of all service providers could lead to an increase in a patient's functioning. Sila et. al.(2011) asserts that the highest percentage of patient functioning rehabilitation occurs during the first three to six months post-stroke. If social work, medicine, psychiatry, occupational therapy, physical therapy

and speech are all collaborating on a patient's behalf immediately post-stroke, there is a higher likelihood that the patient could regain some of their previous typical lives.

A final result of the interviews which demonstrates support to the literature is the patient and care system's accessibility to mental health and supportive services. All of the participants stated they present patients and care systems with referrals to services like mental health rehabilitation, medical evaluation, support groups and psychoeducation. Ukei et. al., (1999) stated that one of the largest predictors of a patient's capability to recover was the patient's interpretation of their current situation. If patients are experiencing depressive symptoms, the accessibility of mental health services might provide some increase to the patient's mood, providing a more positive interpretation of their situation. It was very reassuring to hear that patients do have the option to speak to someone if they are experiencing a decrease in mood or depressive symptoms, as these services may just provide the right type of support needed for the patient during this time.

Researcher Reaction

The process of research and interviewing the participants provided the researcher with some interactions and insight. A reaction the research presented was due to participants answering differently than was expected, or proposing questions and topics provided by themselves. The content presented by the participants provided very interesting content, but made for a challenge in the coding process. As the research was completed in order to find certain themes, the response of participant with extraneous content made for considerations of what to recommend for anyone wanting to continue this research in the future.

A reaction experienced by the researcher was the effort necessary to separate the emotional event and experience of having a stroke from the research project. When participants shared certain answers which created an emotional reaction in the researcher, it was necessary to ensure the emotional reaction did not intervene with the interviews. For example, when participants began to discuss atypical age of stroke patient, the researcher found it necessary to make sure questions did not change orientation to this area of interest.

In addition, the participants at times made reference and comments about topics to which they felt most passionate about, which occasionally got off topic from what the item initially requested. It was an important part of the coding and theme-identification process to make sure the participants' off topic responses were identified as themes. This created more challenge in the coding process, as participants frequently commented on interesting topics worth further research, but could not be coded for this research process.

Limitations and Recommendations

Several limitations to the study were identified. A limitation to this study was the limited number of participants interviewed. The generalizability of the information gathered could have increased if there were a greater number of participants to compare the information. One possible way to remedy the limited number of participants would be to broaden the inclusion criteria to social workers practicing in settings other than only in a hospital. A possibility to increase sample size would be to create an online questionnaire and survey. In addition, an increase in sample size could come from contacting an organization of hospital social workers, such as the National Association of Social Workers.

One limitation was the acknowledgement of research items being too unspecific. During one of the interviews, the researcher made reference to the number “25 to 50”, which was a question about the average number of stroke patients on the participant’s caseload at any given time. The participant interpreted the numbers as inquiry about patients aged 25 to 50, and answered the subsequent questions accordingly. The realization that there was such a lack of definition in the items being questioned, without the ability to change questions in an ad lib fashion presented as a challenge.

Another limitation was that the respondents of this study social workers providing services to clients within the acute care setting, and no other types of setting. While this helps to strengthen the validity of the research and items asked, it decreased the generalizability of the responses to all hospital social workers. This definition in role for the hospital social worker defines the type of services which they should be looking for on behalf of the patient. Had these questions been asked of social workers whom are serving stroke patients after life has calmed for

both the patient and the support system, the responses might likely have been considerably different. A recommendation to others interested in continuing research of social work interventions with stroke patients would be to specify the participant gathering criteria. This specificity could lead to the exclusion of acute hospital settings, and focusing more on aftercare services, such as a setting like the Courage Center, or Sister Kenny. Interviewing social workers from this service setting, using the exact questions used in this study likely could lead to different responses, and a differing list of themes identified. For future research, broadening the participant sample to other social workers serving stroke patients could help broaden the information gained.

Another recommendation for amending this research design would be the alteration of the questions asked during the interviews. Some of the interview questions were too vague, and could be refined to identify more specific information about the social work interventions. For example, the participant who misinterpreted my comment to be about the average age of the patient would have led to more specific knowledge. As people younger than 30 years of age make up less than 10% of the population who has experienced a stroke (Sila et. Al., 2011), questions asked exclusively about younger patients could lead to a much different result than what was interpreted for this study.

A limitation was identified during the final committee meeting of the research project. The limitation identified was of the status of the questions used in the interviews. The questions created were listed as six demographic-gathering, closed-ended questions, and 11 open-ended questions. However, when reexamining the questions, it was identified that only item seven was truly an open-ended question. Items 8 through 16 were actually closed-ended questions, with

contingency comments for which the participant could choose to elaborate on. Participants responded to the items as if they were open-ended, but the research committee was unsure whether or not the status of items as not truly open-ended impacted the research process at all. To rectify this occurrence for future studies, a pilot draft of the items could be created and examined by more researchers or committee members. Another possibility would be to change the format of the research to be a mixed methods study. This would then identify more questions as closed-ended, and then could provide elaboration on the open-ended questions.

The information gathered from the participants presented some insight as to why such a small number of participants responded. One participant referenced responding to the research study request due to her own involvement in a previous clinical research project. In addition to this insight, the participant stated email requests need to be prioritized, to ensure continuity of care for the patients takes precedence over other extraneous requests. With the large number of patients seen by a social worker, the participants requested who did not respond could have been too busy to respond to a non-essential request. It could have been that the non-responding participants were reluctant as they had no personal connection to the researcher.

Another way in which the participants could have been limited was due to the request for participation via email. The aforementioned participant articulated that the email server connected to the hospital sometimes will not let outside emails through. This may have presented as a limiting factor, as some of the requested participants may have never received the request for participation. A recommendation for further study would be to contact each hospital to acknowledge the researcher would be emailing social workers as possible participants.

Implications to Social Work

One way the findings have provided implications for social workers can be as a result of the high numbers of people who will experience a stroke in their lifetime. As stated by all of the participants, each of them have served stroke patients totaling in the hundreds, to possibly the thousands. According to Klindenst (2012), one in three people in the United States are expected to die as a direct or indirect result of stroke. With this large number of stroke occurrence, there is a large likelihood that a social worker will someday come into contact with someone who has either experienced a stroke themselves, or is dealing with the stress of someone else in their life experiencing one. This statistic suggests that trainings for working with stroke patients and their care systems should exist for social workers. As the case of each patient can be very different, some training should be presented in order to instruct social workers on how best to serve the myriad of symptoms and problems associated with stroke.

With the likelihood of a stroke patient experiencing some type of depression in their lifetime (Hackett, 2006), it would be of great importance for clinically-trained social workers to be meeting with stroke patients on a regular basis. As the participants identified during the interviews, mental health symptoms, especially depression, is a common experience for someone who has experienced a stroke. With training on how to identify symptoms of mental health concern and depression, the service of a clinically-trained social worker could help in the multitasking roles a hospital social worker is expected to complete. If said social worker is expected to complete discharge planning, and this social worker has identified depression or behavioral concerns, the social worker has the ability to identify a placement with all the resources necessary to serve this patient. It may be of benefit to the hospital social worker if there existed an inventory for assessing depressive symptoms while in patient is still hospitalized. As participants mentioned, the demonstration of depressive symptoms is common,

but the timing and severity of the symptoms is very different for each patient. If an depression inventory or screening checklist existed, these symptoms may be more easily identified, and the outcome of the patient bettered.

In addition, if the patient or care system is not looking for a long-term care placement, a clinically-trained social worker has the capability of providing counseling services and support services. The participants reported that their hospitals employ psychologists, psychiatrists and other mental health rehabilitative workers. If a hospital social worker is licensed as a clinical social worker, they would have the ability to provide support groups or individual and family counseling for the patients. With all of the initial anxiety and chaos that can be a result of someone experiencing a stroke, the social worker has the ability to calm some of these fears for the patient and care system. With the social worker viewing a patient from the lens of person in environment, the social worker also has the capability to identify unforeseen problems which may arise.

The topic of multidisciplinary interaction seemed to be a variable as well as a commonality during the interviews. As each participant described interactions with multidisciplinary teams, but to different extents, frequency and team members, there exists inconsistency across hospitals. The existence of differences in multidisciplinary interactions could provide variety in the outcome of the patient's well-being. Research should likely be continued to find out the preferred amount and content of multidisciplinary interaction on behalf of a stroke patient.

A topic which emerged during the project, but not addressed by the participants was of the possibility of clinician or volunteer service providers who themselves have experienced

stroke. As all of the participants identified giving patients and families resources, so to could be a referral to work with someone who has experienced something similar. Receiving support from someone who is able to answer based on drawing from their own experience may provide solace and comfort to the patient. If a service provider has experience and knowledge of what a patient is possibly experiencing, this knowledge may lead to insight into the treatment planning on behalf of the patient.

Conclusion

The purpose of the research study was to identify how hospital social workers interact with stroke patients, and to find out how these social workers are working with symptoms of mental health being experienced by the patients. The themes generated identified that these social workers identified mental health symptoms in the patients, but largely referred out mental health services once the patient was discharged from the hospital.

The research has provided some insight into the typical interactions a licensed hospital social worker will experience with a stroke patient. Some of the more pertinent findings from the interviews reassert that the social workers interviewed are providing evidence-based interventions with stroke patients. The findings suggest this, as these social workers are providing education to patients and care systems about what concerns. The participants also report providing assessments for major areas of concern, the identification depressive and behavioral symptoms, and equal attention to both the patient and the patient's care systems.

As aforementioned, the field of research is limited in the ways that psychiatric symptoms of stroke patients are identified by social workers in a hospital setting. As it is very critical to ensure psychiatric symptoms are not a side effect of something medically serious in a patient, the patient's mental health symptoms are not as emphasized in the initial phase of treating stroke. For example, panic and anxiety are common symptoms of someone experiencing a heart attack. But as someone cannot die from the symptoms of a panic attack, the medical situation is of the greatest importance. The research and knowledge base of identifying depression, anxiety and panic within the emergency room and hospital setting could benefit from further study.

In the example of “Bob” described earlier, the theme of separating physical health and mental health symptoms could possibly have helped in the patient’s recovery. If more mental health screening and psychoeducation were presented to the patient, the likelihood of him returning to the emergency room and hospital for symptoms of panic and anxiety would decrease. The further study of the interaction between stroke and mental health could help to streamline the hospitalization process for stroke patients.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Berg, B. L. (2008). *Qualitative research methods for the social sciences*. Boston, MA: Allyn and Bacon, 7th ed., (ISBN 0-205-31847-9)
- Caplan, B., Moelter, S., Frank, R., & Elliot, T. R. (2000) Stroke. *Handbook of Rehabilitation Psychology*. 24, (75-108). Doi: 10.1037/10361-004.
- Fundukain, L. J. (2011). *The gale encyclopedia of medicine*. (4 ed., Vol. 4, pp. 3566-3571). Detroit, MI: Gale, Cengage Learning.
- Hackett, Maree, Anderson & Craig, (2006). Mental health; review finds management of poststroke depression in elderly is lacking. *Mental Health Business Week*.
- Hiroufumi, U, Washino,K, Fukao, T, Inoue, M, Ogawa, N, Takai, A. (1999). Mental health problems after stroke. *Psychiatry and Clinical Neurosciences*. 53. (621-627).
- Hutchison, E. D. (2011). *Dimensions of human behavior: person and environment*. (4th ed.). Thousand Oaks, CA : Sage Publications, Inc.
- Klinedinst, N.J., Dunbar, S.B., & Clark, P.C. (2012). Stroke survivor and informal caregiver perceptions of poststroke depressive symptoms. *Journal of Neuroscience Nursing*, 4. (72-81). Doi: 10.1097/JNN.0b013e3182477944
- Miley, K. K., O'Melia, M., & DuBois, B. (2011). *Generalist social work practice*. (6th ed.). Boston, MA: Allyn & Bacon.

- Riddoch, M.J., Humphreys, G. H., & Baetman, A. (1995). Stroke: issues in recovery and rehabilitation. *Physiotherapy*, *81*. (689-694).
- Ros, H. (2009). Neocortical networks entrain neuronal circuits in cerebellar cortex. *The Journal of Neuroscience*, (29). *33*. (10309-10320). DOI: 10.1523/JNEUROSCI.2327-09.2009
- Rizzo, V. M., (2006). Social work support services for stroke patients: interventions and outcomes. *Social Work in Health Care*, *43*. (33-56). DOI: 10.1300/J010v43n01_03.
- Sila, C & Schoenberg, M.R., (2011) *The Little Black Book of Neuropsychology*. Springer, NY.
Doi: 10.1007/978-0-387-76978-3.
- Wilz, G. & Soellner, R. (2009). Work loss following stroke. *Disability and Rehabilitation*, *31*. (1487-1493). Doi: 10.1080/09638280802621432.

Appendices

Appendix A

Appendix A

Social Worker Interventions for Patients Post-Stroke

RESEARCH INFORMATION AND CONSENT FORM

Introduction:

You are invited to participate in a research study investigating social work interventions with patients who have experienced a stroke. The research will examine situations the patient experiences, both physical and mental, which yield social work intervention in the hospital setting. This study is being conducted by Alexander Carlson at St. Catherine University under the supervision of Dr. Michael Chovanec, a faculty member at the university. You were selected as a possible participant in this research because you are a hospital social worker. Please read this form and ask questions before you decide whether to participate in the study.

Background Information:

The purpose of this study is to better understand which symptoms a patient experiences post stroke, including both mental health and physical health problems and how social work intervenes. Five to ten **participants** are expected to participate in this research.

Procedures:

If you decide to participate, you will be asked to answer the **interviewer's list of questions, which is comprised** of approximately six **multiple choice question and 11 open ended questions**. The questions will be in regards to your work practices, elements of patient and care system interactions, and patients presenting with symptoms of mental and physical health complications due to stroke. The research will take place in a **confidential setting within a public building**, and will occur only once. This study will take approximately 45 to 60 minutes over one session and will be audio taped.

Risks and Benefits:

The study has minimal risks. There is a risk that potential difficult memories could be invoked in the recall of past patient engagements.

There are no direct benefits to you for participating in this research. This research could further benefit intervention planning within patients experiencing symptoms of panic or stroke/CVA.

Compensation:

If you participate, you will receive a \$10.00 gift card, regardless of completion of the interview.

Confidentiality:

Any information obtained in connection with this research study that could identify you will be kept confidential. In any written reports or publications, no one will be identified or identifiable. Individual quotes will be used in the final paper, but all identifiable information will be removed from the quotes.

I will keep the research results in a password protected computer once coded into the SPSS research program, and the audio tape will be locked in a file cabinet at my residence. Only I and my advisor will have access to the records while I work on this project. I will finish analyzing the data by May 25th, 2014. I will then destroy all original reports and identifying information that can be linked back to you. The memory card containing the interview will be erased on or before May 25th, 2014

Voluntary nature of the study:

Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with myself or St. Thomas/St. Catherine University in any way. You may refuse to answer any of the survey items if you so choose. If you decide to participate, you are free to stop at any time without affecting these relationships, and no further data will be collected. The gift card will still be distributed if you choose to meet for any part of the interview. You are free to suggestions of questions or topics during the interview.

Contacts and questions:

If you have any questions, please feel free to contact me, Alexander Carlson, at (651)235-0818. You may ask questions now, or if you have any additional questions later, the faculty advisor, Dr. Mike Chovanec: (651) 690-8722, will be happy to answer them. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John **Schmitt**, Chair of the St. Catherine University Institutional Review Board at (651) 690-7739.

You may keep a copy of this form for your records.

Statement of Consent:

Your signature indicates that you have read this information and your questions have been answered. Even after signing this form, please know that you may withdraw from the study up to one week after signing, and no further data will be collected.

I consent to participate in the study, and I agree for my interview to be audio-taped.

Signature of Participant

Date

Signature of Researcher

Date

Appendix B

Hospital Social Worker Interventions with Stroke Patients

As stated in the consent form, you are free to withdraw from the research at any time. Please answer to your best ability. If you are unsure how to answer any item, or feel uncomfortable answering any items, please feel free to say so. During section one of the interview, the research will begin with items aimed at identifying what types of patients you have served in the past. Section two will spend more time in identifying specifics to the types of services you have provided to this clientele. If you have any questions at any time, please feel free to clarify.

Questions for research interview:

Section 1 – Demographics

- 1.) What area of social work do you work in currently?

- 2.) Are there any other areas of social work in which you have worked? (For example, school, in-home services, other hospital settings, community mental health setting, etc.)

- 3.) What client populations have you historically worked with? (For example, children, students, clients with serious and persistent mental illness, homeless, etc.)

- 4.) How many clients have you served who've experienced a stroke?
 - a.) 1-5 patients
 - b.) 6-12 patients
 - c.) 13+ patients

- 5.) If you can recall, what types of strokes have these patients experienced? (please circle all that apply)
 - a.) Ischemic or Hemorrhagic
 - b.) Left/Right hemisphere
 - c.) Prefrontal Cortex
 - d.) Parietal

- e.) Thalamic
- f.) Cerebellar
- g.) Pons
- h.) Brainstem
- i.) Midbrain
- j.) Other

6.) When a patient experiences a physical paralysis, what resources did you give to the patient or support system?

- a.) Physical Therapy
- b.) Occupational Therapy
- c.) In-Home Services
- d.) Skilled Nurses
- e.) Family or support system resources If so, please list _____
- f.) Emotional or Behavioral support
- g.) Psychotherapy
- h.) Other (please list)_____

6.) How do patients get referred to your type of services?

- a.) Primary Care Physician
- b.) Physical/Occupational Therapist
- c.) Support System Inquiry
- d.) Other (please list)_____

Section 2: Open-ended

7.) In what ways has the patient's life been impacted post stroke?

8.) Is there a standard list of resources you give to patients of stroke? If so, what is it composed of?

9.) Have any post-stroke patients **encountered** mental health symptoms?

If so, what were some of the symptoms:

What are the most frequent symptoms presented?

10.) Have any patients/family systems reported symptoms of panic/agoraphobia?

If so, what were symptoms:

If so, was a rehabilitative service recommended? What was the service recommended?

11.) Do any of the patients request medication for their mental health symptoms?

If so, what percentage?

12.) Do patients/support systems ever request mental health therapy for their symptoms?

13.) For working with post stroke patients, do you provide any type of mental health screening?

14.) Are the mental health concerns presented by the patient, or the patient's support system?

15.) If the patient is under the care of a medical doctor, do social work and medicine connect to complement one another's service?

16.) Are social work services an ongoing service to these patients?

17.) Are any supportive counseling services (**I.E.: therapy, grief support, psychoeducation, etc.**) presented to the support systems?

If so, what types of services:

Any other thoughts/ideas/themes that I haven't asked about that you care to remark on?

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS INTERVIEW!

Appendix C

Are you a hospital Social Worker?

Have you ever provided any care for patients who have experienced a stroke?

Have you ever worked as part of a multidisciplinary team to provide care for these patients?

Do you have ideas on possible interventions for working with stroke patient?

If you said “yes” to any of the questions above, I would like to invite you to participate in a clinical research project interviewing licensed hospital social workers. The aim of the research is to find out what situations you find to be problematic for the patient, as well as the patients’ care system, who has experienced a stroke. If there are ideas or situations you have found to be beneficial to working with this population, or not as beneficial, I would like to hear your opinion!

I will be conducting a one session per participant interview and survey about situations and issues of concern facing hospital social workers who have experience serving the stroke patient population. The surveys are expected approximately 45 to 60 minutes, and will assess approximately 12 to 15 open ended questions about the service of this population.

For your time and participation, I will provide a \$10 gift card, regardless of whether or not you complete the entire survey.

If you have any interest, please feel free to contact Alex Carlson at (651)235-0818 or at carl0638@stthomas.edu. I will be able to provide answers to any questions you may have about the process, and the intent behind the survey. Survey times are expected to begin in early February and run until late March. I will arrange for days and times which work best for participants, as well as find whatever area will be best for the interview.

Thank you so much for your time and consideration!