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The Prediction and Relationship between Age, Ethnicity, Gender, and Quality of Life Using Self-Efficacy Scores among Stroke Survivors

Sabrina Angela Thornton
Walden University

Walden University

College of Social and Behavioral Sciences

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Sabrina A Thornton

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Dr. Stephen Rice, Committee Chairperson, Psychology Faculty
Dr. Tracy Mallett, Committee Member, Psychology Faculty
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Eric Riedel, Ph.D.

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Abstract

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By

Sabrina A Thornton

MA, Walden University, 2009

BS, Grambling State University, 2003

Dissertation Submitted in Partial Fulfillment

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Abstract

Stroke is a serious illness that requires urgent attention. The purpose of this study was to investigate whether age, ethnicity, gender, and quality of life predict self-efficacy scores in stroke survivors. The theoretical foundation of the study was the social cognitive theory of perceived self-efficacy that was developed by Bandura. There were 4 specific research questions investigated. A correlational research design was used to sample 115 stroke survivors from several Arkansas rehabilitation facilities who completed a pilot study, demographic form, QOL rating scale, and the Daily Living Self-Efficacy Scale (DLSES). Stepwise multiple regression analysis was applied to identify the independent variables that served as significant predictors. The findings revealed that ethnicity, gender, and the quality of life did not predict self-efficacy scores when controlling for all other variables in stroke survivors. The independent variable age was statistically significant for both the QOL rating scale and the DLSELS scores. Age predicted DLSES and the QOL rate scale scores when controlling for all other variables among stroke survivors. This study may promote understanding for stroke survivors, make future research accessible through effective psychologically measured questionnaire interventions, and provide awareness of stroke exposure. This study enabled potentially positive social change through social services. Many issues were identified after stroke and the implications of research for practice were highlighted.

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Dedication

I dedicate this manuscript first and foremost to my Heavenly Father, without you this would not have been possible. I want to dedicate this work to my mom and sister for encouraging me to keep the faith and last but not least I want to bestow the memory of my dad because I know you are watching and smiling now that I have completed this task. Furthermore, I want to thank all my relatives, sorority sisters, friends, and associates for their positive words of encouragement as this wonderful process reached completion.

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Chapter 1: Introduction to the Study

Stroke is a serious medical condition that requires urgent attention. A stroke can cause permanent brain impairment, long-term disability, or even death (Adamson, Beswick, & Ebrahim, 2004). This study was conducted to determine the prediction of scores and to make highly rated and accurate predictions. The stronger the relationship between variables, the more accurate the predictions were among the relationship of variables, and whether they related to stroke survivors. As a result, statistical methods were used to measure and test the existence and strength of relationships through the Daily Living Self-Efficacy Scale (DLSES).

Age, gender, ethnicity, and quality of life after stroke were significant aspects of the stroke survivor's demographic population. Research evidence pointed to a high risk of social isolation for stroke survivors. There are many stroke survivors. The potential positive social changes were brought about by medical rehabilitation services that were important for highlighting the implications of research for practice. Professional medical staff delivered relevant and timely information that was suitable to inform the survivors of their status and diagnosis. Staff awareness was enabled for survivors and caretakers/nurses to access day centers and assist, schemes, rehabilitation, respite, and some other sources of social support (Salter, Foley, & Teasell, 2010). Effective communication through appropriate and considerate information provision was also essential to support the needs of survivors and caretakers such as nurses (Mackenzie, Perry, & Lockhart, 2007). Excellent communication also facilitated the involvement of survivors and the administrators and nurses in the decision process to make final

discharge plans and care assessments to ensure proper transition to the community or residential care (Parr, Byng, & Barnes, 2004).

With more improved medical treatment, more people survive strokes and live with supported needs in the community. The understanding of strokes enables potential positive social change through social services for staff to be instrumental in identifying emotional issues after strokes such as depression, anxiety, loss of self-esteem, and other mental health problems (Simon, Kumar, & Kendrick, 2009. This chapter includes the Introduction; Background; Problem Statement, Purpose of the study, Research Questions and Hypotheses, Theoretical and Conceptual Framework of the study, Nature of the Study, Definitions, Assumptions, Scope and Delimitations, Limitations, Significance, and the Summary of the Chapter.

Background

Selective articles associated with the fields of counseling, rehabilitation, and psychology, as well as some studies between relationships, self-efficacy, and quality of life were found. Waltz and Bandura (1988) investigated cardiac patients that included 400 males plus their spouses. Throughout their recovery, there were several continuations checkups in a 5-year period. It was discovered that quality of life for this population seemed to be guided by efficacy, personal well-being experiences, and reasonably secure socioenvironmental conditions related to the level of spouses and their intimacy that were connected to spousal tension. Arns and Linney (1993) examined relationship adjustments for housing and industrial type, society duration, self-efficacy, confidence, and life fulfillment for individuals with psychological incapacities.

The literature mentioned earlier specified initial indication concerning the effect of self-efficacy viewpoints have on the quality of life. Jones and Mandy (2009) explored the results of a self-management from a workbook intervention designed for use with individuals and their ages that were disabled after their first stroke. For this study, the authors inspected the use of an individualized stroke self-management intervention that was acceptable and lead to a change in self-efficacy scores. There were seven men and three women, and their mean for age was 61.5 years (*SD* = 8.15), averaging 24.2 weeks (*SD* = 18.29). Ethnicity, gender, and quality of life for stroke survivors' independence also were considered because they are important to understanding the primary relationship of self-efficacy scores.

Robinson-Smith's (2002) objective was to determine the relationship of self-care and self-efficacy to functional independence, quality of life, and depression after stroke. Self-efficacy was strongly related to the quality of life and depression (Robinson-Smith, 2002). The literature conveyed the contribution of society and relationships, with family and friends, as the quality of life components that was determined by the individuals that participated in the study. This highlighted an important function in the quality of life. As for recent literature, this type of belief was acceptable by the stroke survivor's population. In several aspects for a survivor in this study were age, gender, ethnicity, and their quality of life after stroke also their essential approach in their setting to acknowledge the belief about self-efficacy and its scores. It has been recognized by, Maujean, Davis, Kendall Casey, and Loxton (2014) and was recognized in this study as

well. However, this study was needed to help all stroke survivors of all ages, genders, ethnicities, have a quality life why maintaining after a stroke.

Problem Statement

The research problem was four predictor variables among stroke survivors. The predictors of this research study were age, ethnicity, gender, and quality of life. All predictor variables were variables of interest in the study (those that were measured or observed) to have some influence on the dependent variable. This research study was further used to serve the interests of individuals who are stroke survivors, as well as their families and friends. It served as an educational purpose for those who were unaware of strokes and the life after a stroke.

Some people are not familiar with the term *brain attack*, which leads third in the cause of death in the United States (American Heart Association, 2000). Better known as a cerebrovascular accident (CVA) or stroke, it involves the sudden interruption of blood flow to the brain, killing brain cells, and destroying or impairing bodily functions of the brain (American Heart Association, 2000). Strokes afflict approximately 600,000 individuals each year, claiming the lives of about 150,000 victims. Strokes are also the leading cause of severe, long-term disability in the United States. There are 3 million CVA survivors in the United States, all of who suffer from some permanent disability (American Heart Association, 2000). Despite the extensive research on strokes, little attention has been paid to the age, ethnicity, gender, or the quality of life, and what happens afterward. The primary focus of this research was geared toward age, ethnicity, gender, and quality of life.

Purpose of the Study

This research study was a quantitative, descriptive, and correlational study that used statistical regression analysis. In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. The aim was to determine if the four selected variables had significant prediction capabilities on the dependent variable. The possible predictor variables were age, ethnicity, gender, and quality of life. Researchers continue to study strokes and who they affect. Strokes occur at any age. There are more women than men that have a stroke every year. African Americans have been reported to more likely have strokes more than any other ethnicity (World Health Organization, 2002). Quality of life is very complex for individuals when left with a disability; the impact of a stroke can be devastating and may result in serious deficits, which may reduce the quality of life (Mohammad, Sadat, Yim, & Chinna 2014). There specific measurements used to test the impact of this condition.

It was determined whether independent variables predict the dependent variable. It included many techniques for modeling and analyzed several variables when they focused on the relationships related to the dependent variable and one or more independent variables (or predictors).

Research Questions and Hypotheses

RQ1: Did quality of life predict the self-efficacy scores when controlling for all other variables?

$H_0$1: Quality of life did not predict the self-efficacy scores when controlling for all other variables.

H_a1: Quality of life predicted self-efficacy scores when controlling for all other variables.

RQ2: Did age predict the self-efficacy scores when controlling for all other variables?

H_o2: Age did not predict self-efficacy scores when controlling for all other variables.

H_a2: Age predicted self-efficacy scores when controlling for all other variables.

RQ3: Did gender predict self-efficacy scores when controlling for all other variables?

H_o3: Gender did not predict self-efficacy scores when controlling for all other variables.

H_a3: Gender predicted quality of life scores when controlling for all other variables.

RQ4: Did ethnicity predict self-efficacy score when controlling for all other variables?

H_o4: Ethnicity did not predict self-efficacy scores when controlling for all other variables.

H_a4: Ethnicity predicted self-efficacy scores when controlling for all other variables.

Theoretical Foundation/and/or Conceptual Framework for the Study

The framework of this study was based on the social cognitive theory of perceived self-efficacy (Bandura, 1977). Bandura's (1977) social cognitive theory stands

in clear contrast to theories of human functioning that overemphasize the role that environmental factors play in the development of human behavior and learning. The social cognitive theory and human motivation actions are extensively regulated by forethought. This anticipatory control mechanism involves three types of expectancies: (a) situation–outcome expectancies, in which consequences are cued by environmental events without personal action, (b) action–outcome expectancies, in which outcomes flow from personal action, and (c) perceived self-efficacy, which is concerned with people's beliefs in their capabilities to perform a specific action required to attain a desired outcome (Bandura, 1986).

Conceptual Framework

The social cognitive theory proposes that personal, behavioral, and environmental factors operate as determinants of behavior. Interventions derived from the social cognitive theory focus on the importance of how an individual's ability and/or environment produce changes in behavior. While some social-cognitive approaches have received mixed results for motivation and cognition action applications, interventions targeting self-efficacy, and decision-making strategies have accumulated significant support (Mitchell, Brodwin, & Benoit, 1990).

Self-efficacy (Bandura, 1977) is a central concept within the social cognitive theory and is the degree to which an individual believed they could successfully execute a behavior. Self-efficacy can be altered through performance accomplishments, vicarious experiences, verbal persuasion, and physiological state. In self-efficacy, people's beliefs about themselves give them the right to perform a behavior. They can have the ability in

a certain setting that is changed by knowledge of mastery that comes from effective accomplishment, demonstration, and encouragement (Bandura, 1977). The aim of enriching confidence in self-efficacy is strengthening beliefs though attained performance accomplishment, vicarious learning, verbal persuasion, reinforcement, and reducing negative feelings from the client.

Nature of the Study

This study was quantitative and used a correlational design and a statistical regression analysis. Correlation and regression analysis are related, and both deal with relationships among variables. Regression analysis involved identifying the relationship between the dependent variable and one or more independent variables (Mertler & Vannatta, 2010). The correlation design and statistical regression analysis were used to examine the predictive capacity of the independent variables. The variables for this study were: age, ethnicity, gender, and quality of life.

The Daily Living Self-Efficacy Scale (DLSES) was used as the dependent variable to evaluate self-efficacy scores. The DLSES has been researched and utilized in a few studies. The DLSES is a stroke self-efficacy questionnaire that has 17 questions; but, only 12 questions measure individuals that have suffered from a stroke in the questionnaire. There were perceived self-efficacy measures from specialized areas for functioning (e.g., individual concern, flexibility activity, behaviors, and undertaking of other skills associated to self-management and their actions (Maujean et al., 2014). The instrument evaluated the self-efficacy scale by utilizing two important areas of daily

functioning activities and psychosocial function within their community that was beneficial to enhance preparation to return to the community (Maujean et al., 2014).

In total, 115 outpatient stroke survivors from several rehabilitation facilities in Arkansas were solicited to participate in the study. All participants completed the questionnaire when they were not engaged in rehabilitation sessions. The time of day was morning to when the demographic form, the quality of life rating scale and the daily living self-efficacy scale questionnaire were administered. The completion time of the demographic form and QOL rating scale was about 20 minutes and an additional 10 minutes was given for the DLSES questionnaire. Approximately 30 minutes was required to finish all the documents. The nature of the study supported stroke survivors and their self-efficacy after a stroke. Professionals in this field are concerned about survivor's stroke and assure beliefs of self-efficacy as the explicit goal of a stroke survivor's skills after a stroke (Streusel, 1995). A belief that a person has come to believe that they can go about doing a particular behavior changed by their experience; mastery that has taken place from an effective performance of and the modeling of the persuasion of the action has taken place.

Definitions

Age: The psychological term of age of an individual is determined by emotional, mental, structural, biological, and development (Medical dictionary, n.d.).

Gender: The condition of being male or female or neither. Also, gender implied to the cultural, social, behavioral, and psychological aspects (Psychology Dictionary, n.d.).

Ethnicity: Used interchangeably with culture as well as with race. Ethnicity is used about groups that are characterized in terms of a common nationality, culture or language. Hence, ethnicity refers to the ethnic quality or affiliation of a group, which is normally characterized in terms of culture (Betancourt & Lopez, 1993).

Daily Living Self-Efficacy Scale (DLSES): Created to evaluate individuals that are considered as stroke survivors with their daily performance skills as well as psychological behaviors. (Maujean et al., 2014).

Self-efficacy: A psychological concept that was established by Bandura (1994) and is used as a construct of the social learning theory.

Quality of life: An individual's general wellbeing, including mental status, stress level, sexual function, and self-perceived health status (Medical Dictionary, 2012).

Assumptions

It was assumed that participants volunteered in this study and was not bias to the study because they experienced a stroke. It also assumed that the participants in the study completed the questionnaire truthfully and to the best of their ability. All participants completed the demographic form and the QOL rating scale and the DLSES questionnaire when the patients were not engaged in rehabilitation sessions. The time of day was the morning. The generalizability of this study was not limited populations, but of primary professionals in this field. Beliefs helped goals of a stroke survivor with skills after a stroke (Strauser, 1995). A person's beliefs were concerned with their specific behavior that was from the particular setting and changed due to their experience of mastery (Bandura, 1977). The study focused on age, ethnicity, gender, and quality of life and

predicted the measuring of self-efficacy scores. This study was of correlational nature and focused on relationships between the dependent variable and predictors of experiences and stroke survivors.

This project is unique because it focused on research that required further investigation on age, ethnicity, gender, and quality of life after stroke. For this study results were used in deciding whether age, ethnicity, gender, and quality of life are predictors of self-efficacy scores. The apparatus was used for this study was the DLSES scale and the QOL rating scale. The measure of the DLSES was originated to evaluate three important areas of everyday functioning among stroke survivors, specifically, psychosocial functioning, and actions of living daily. The QOL rating scale rated the survivors of stroke quality of life. There are several generally accepted guidelines for developing a good measure (Gregory, 2004).

Multiple regression (MR) is used to investigate the relationship between a single outcome measure and several predictors or independent variables (Jaccard et al., 2006). Statistical tests rely upon certain assumptions about the variables used in the analysis (Osborne & Waters, 2002). The correct use of the multiple regression model required that several critical assumptions be satisfied to apply the model and establish validity (Poole & O'Farrell, 1971). Inferences and generalizations about the theory are only valid if the assumptions in the analysis have been tested and fulfilled. The assumptions of MR that are identified as a primary concern in the research include linearity, independence of errors, homoscedasticity, normality, and collinearity. As a result of this, when assumptions are violated, accuracy and inferences from the analysis are affected

(Antonakis & Dietz, 2011). Statistical software packages allow researchers to test for each assumption. By checking the assumptions carry significant benefits for the researcher, reduce error, and increase the reliability and validity of inferences. Consideration of the issues surrounding the assumptions in multiple regression should improve the insights for researchers as they build theories (Jaccard et al., 2006).

Scope and Delimitations

The scope focused upon age, ethnicity, gender, quality of life, and the predictors of self-efficacy scores of stroke survivors in Arkansas. These variables were used as predictors that predicted the scores measured among stroke survivors. The sample population was delimited to all stroke survivors that were not natives of Arkansas. The sample population was limited to all stroke survivors of the state of Arkansas. There was not a limit for the stroke survivor's age for this study. Another delimitation of this study was between perceptions and behavioral and lifestyle changes between stroke survivors and non-stroke individuals. It was decided not to study non-stroke individuals due to the lack of research provided in this area. However, most published research focused on stroke victims, older and younger stroke survivors or mixed populations with other illness involved with stroke.

The stroke survivor's location was in Arkansas. Gender or ethnicity did not limit the scope. Only participants identified as stroke survivors were included in the study that precluded the data extrapolation to patients with other types of illnesses. The measurements and scales were collected in the year 2018. There were several facilities for the stroke survivor's populations from the state of Arkansas used in the study. The

ability to generalize these results was limited to other similar populations. The study was delimited to stroke survivors without psychological dysfunctions.

Limitations

This study had several limitations. The small pool of participants made it difficult to ensure a representative sample, and this sample issue limited generalizability. The participants were conveniently sampled. The purposive convenience sampling was appropriate for the current study considering the nature of the participants. It would take more time and resources to conduct a randomized selection because there was a significant uncertainty that the selected participants would agree to cooperate, given the sensitive nature of their condition.

Another limitation was the method of recruitment that it might not have attracted an ethical and socioeconomically diverse sample, as it would with participants with other illness due to the fact of the physical and psychological inconvenience that stroke causes. In addition to the selection of participants, age was not a factor. This limitation was necessary, considering the movability status and the living arrangements if the participants.

For this study, a correlational design using a statistical regression analysis was used and appropriate despite its limitations because this study intended to determine the prediction outcome relationship that existed between the four variables that predicted self-efficacy scores among stroke survivors. The aim of using correlation in research is to figure out which variables were connected. A correlational study is used to determine whether two variables correlate, that is, whether an increased or decreases in one variable

corresponds to an increase or decrease in another. It is vital to remember that correlation does not imply causation, and there is no way to determine or prove causation from a correlational study.

Significance

This project was unique because it focused on research that required further investigation into the areas of age, ethnicity, gender, quality of life, and the prediction of self-efficacy scores. The results of this study were used in deciding whether the four variables predict self-efficacy scores for stroke survivors. In the literature, there are many studies on demographics in stroke populations. There were limited studies on all four variables: age, ethnicity, gender, quality of life, and the prediction of self-efficacy scores. Although there are a few, they reflect nursing perspectives, and there were not enough studies to broaden the field of psychology. Self-efficacy is a construct that was initially recognized by Bandura (1977), who studied phobia behaviors. Snake phobias were used as an initial example. Bandura discovered that beliefs of an individual determined their ability in performing activities of choice exploited as determination and task endurance. A person that had a high self-efficacy was more involved and participated more in activities, and they also worked harder and endured at a lengthier period than individuals that questioned their abilities. Bandura hypothesized the construct used as self-efficacy was the initial cause of action of human thought behavior discipline (Bandura, 1977, 1987). Literature revealed that the construct used as self-efficacy affects the quality of life due to an impact on a condition of a health improvement plus uncomfortable behaviors. There are few studies that are nonstop in exploring the quality of life after

stroke. More than a few studies have been done to investigate what it means to have a quality life after an individual suffers from a stroke.

Summary

This chapter was an introduction to the research study, stated the focus of the study, and also presented the background information regarding the problem under investigation. Previous research established the significance of this study. Survivors of a stroke who had confidence in their ability to function with daily activity and their life got better. Stroke is a significant cause of long-term disability globally. It usually occurs suddenly and without warning and has profound effects on the many demographic areas such as age, ethnicity, gender, and their quality of life. Consequently, self-efficacy plays a significant role in stroke survivors' recovery and adjustments after stroke. If individuals lack the belief in their ability, they are more likely to give up when facing difficulties, such as re-learning to walk or speak, which requires determination and perseverance. More than one aspect of functional ability needs to be considered when determining an individual's general level of perceived functional ability in their daily life. An assessment of various aspects of the domain was measured among stroke survivors, though self-efficacy scores in this research study.

In Chapter 2, I addressed a review of the existing literature and how new research explored factors among age, ethnicity, gender, quality of life, and the prediction of self-efficacy scores. Chapter 2 also contains a description of the social cognitive theory, which was the theoretical framework for this study along with the presentation of a brief overview of self-efficacy. Self-efficacy led a central concept within the social cognitive

theory and the degree to which an individual believed they could successfully execute a behavior through a body of evidence, which supported the stroke survivor's relationship between controlled beliefs and their disability.

Chapter 2: Literature Review

Introduction

Data confirmed that stroke is the third leading cause of death and causes long-term disability in the United States (American Heart Association, 2007). The purpose of this study was to explore four possible predictors among stroke survivors. The predictors in this research study were age, ethnicity, gender, and quality of life. All predictors were variables of interest in the study (those that were measured or observed) were responses of the dependent variable. The variables in the study affected the response and were measured by the researcher.

This literature review established continued research concerning the four variables' prediction of self-efficacy scores. It was determined whether the particular independent variables predicted the dependent variable and estimated the magnitude of the effect if any. It included techniques for modeling and analyzed several variables. The focus was on relationships between two or more independent variables (or predictors) and a dependent variable. The literature review provided the basis for the feasibility of the study and indicated constraints of the data collection of the findings of the study.

The research undertook four predictors: age, ethnicity, gender, and quality of life that were measured with daily living self-efficacy scores. The analysis was quantitative and utilized a correlation design that used regression procedures. The measure of self-efficacy for a stroke survivor was one of the factors that influenced the outcome following the condition. Maujean and Davis (2013) conducted a study in investigating the relationships between self-efficacy several factors of wellbeing and several constituents

of wellbeing such as adverse effect, positive affect, and life satisfaction. They used a convenient sample of 80 stroke survivors to determine whether self-efficacy contributed to the wellbeing of the individuals. The study found that self-efficacy and psychological behavior is associated with the factors of wellbeing where demographic and physical functioning variables are controlled. The researchers found that self-efficacy for daily living activities connected merely to a definite mark.

The previous research conducted had a gap in the current knowledge, relationship, and impacted of the variables, which were significant to the topic. Many stroke survivors suffer psychological problems consisting depression and anxiety (Pfiel, Gray, & Lindsey, 2009). The research showed that the relationship was positive. The research done was dependent on information from health personnel and also survivors. The questionnaire was designed to assess factors such as self-efficacy living and functioned with daily activities. The research had been done before in a similar analysis by Davis et al. (2014). The correlation method was a useful tool for this research and was efficient for the correlation design to the extent to which two variables occurred together and were related (Gravetter & Wallnau, 2013). Bandura (1977) studied the relationship between variables and the impact caused by a positive relationship where the effects were mostly psychological, including phobia behaviors.

The following was a literature review on the relationship and prediction of age, ethnicity, gender, and the quality of life and self-efficacy score. Davis (2013) investigated the connection between self-efficacy and aspects of a person's overall health such as negative and positive affect and the individual's life. Davis used a convenient sample of

80 stroke survivors to determine whether self-efficacy contributed to the wellbeing of the individuals. The study obtained self-efficacy as a link to psychosocial functioning that connected to the attributes of wellbeing where demographic and physical functioning variables were controlled. The goal of the literature review was to evaluate the predictors and understand the measures' self-efficacy scores and stroke survival. There was a comparison of views of different authors, previous studies that regarded the issue and highlighted the gaps.

Chapter Preview

The following literature review consisted of several sections. The first section is a description of the research strategy. The second section is the theoretical framework for this study, the social cognitive theory. The chapter then contains a literature review related to age, ethnicity, gender, and the quality of life and examined the measures of self-efficacy scores. This chapter includes a discussion on the implication of past research, and its influence on the investigation that discussed the outcomes of the field, along with recommendations. As a result, the chapter ended with a summary and proceeded to the following section that presented the research methodology of the study.

Research Strategy

With the research strategy, there were several particularities that were taken into consideration. The research strategy was no exception. The process of the research exploited was successful. The research strategy was crucial to maximize the potentialities of a correlation design. The nature of design problems, the type of thinking used to

achieve design solutions, the type of thinking that was used to evaluate design, and how all the above related to the dichotomy described by Martin (2009) was reviewed.

The literature gathered for this review included articles obtained from multiple sources. Online searches were conducted through the Walden online library such as Academic Search Complete, Premier, Medline, Cinahl, Psych Info, Web of Science databases, Google Scholar, and the Cochrane Collaboration, Psychology Simultaneous Databases Search ProQuest Central, ProQuest Dissertation, and Theses Global, ProQuest Health Medical Collection, PsycTest, Science Direct, World Health Organization, Health Psychosocial Instrumental HaPI the search request focused on literature that specifically related to stroke age, gender, ethnicity, quality of life and self-efficacy were published after 1995.

The key terms used in the literature search included *age*, *ethnicity*, *gender*, *quality of life, social cognitive theory, self-efficacy scores,* and *stroke.* There were combinations of terms used such as *enactive mastery, vicarious experience, verbal combinations persuasion, physiological and affective states, stroke the illness, cost of stroke*, and *prognosis of stroke, stroke survivors, assessing self-efficacy, using Cronbach's Alpha coefficient to determine the consistency of Daily Living Self- Efficacy Scale Scores (DLSES), DLSES Scale discriminability, the sector of stroke include recovery,* and *rehabilitation hospitals* to quest and obtain knowledge on the relationship prediction between age, ethnicity, gender, and the outcome quality of life and stroke. The scope of the literature ranged from Bandura (1976) to the World Health Organization (2015).

Regarding the scopes of the literature, the selection criteria involved inquiries that were printed from several peers reviewed journals that focused on stroke population and self-efficacy. The types of journals were involved were interventional, observational, longitudinal studies and websites with interceptors were used for quantitative measures that presented findings that applied to the study. The journals and articles were related to this study's research questions and hypotheses. However, the primary literature on self-efficacy produced before this date was also included. There were other databases investigated for essential articles that were in the English language between 2011 and July 2016. The terms were also combined with results and Self-Efficacy scores. Indications of the relevant journals and specific articles were also verified and were retrieved. The materials involved necessary exploration examining and associations concerned self-efficacy measures. Future research, which informs stroke rehabilitation, utilized the evidence related to other health conditions. This was used to develop the most effective methods of equipped individuals that followed a stroke to cope confidently with the transition of being discharged from therapy towards effective self-management for a longer term.

The literature review information helped to explore the topic that was selected for this research study. Acquiring the skills and knowledge required to analyze and synthesize the research in a field of specialization, was the focal, integrative activity of doctoral education. Such scholarship was a prerequisite for increased methodological sophistication and for improving the usefulness of this research. There was not any limitation placed on age of the study's population or rehabilitation setting. Studies were

omitted if they had more focus on general chronic disease than stroke and if the methodology or methods were not adequately explained. Furthermore, some of the included studies were empirical but did not meet the criteria in utilizing a proper rating scale for evaluating quality in research.

Theoretical Foundation

A theory can provide a framework for guiding the development and implementation of a health intervention. The approach was used for interventions that encompassed several interacting active strategies that were often difficult to evaluate and reproduce, for example, interventions directed at a health condition (Craig et al., 2013). Current recommendations used theory early in the design of interventions, however, did not accurately describe how to incorporate method into the development process. In health behavior literature, systematic reviews reported that only 22-36% of interventions described using any theoretical framework or theory components to guide their development (Davies, Walker, & Grimshaw, 2010; Painter, Borba, Hynes, Mays, & Glanz, 2008).

The importance of managed health conditions was evident by the increasing prevalence and leading role in worldwide morbidity and mortality (WHO, 2011). Many of these conditions prevented, treated, and managed through behavior change interventions, which provided individuals with the skills to have control over and improve their health (Painter et al., 2008; WHO, 2011). However, using theory to develop health interventions helped to identify what behavior change mechanisms were influential for improving health outcomes.

The social cognitive theory was proposed by Bandura (1986) was one of the most common behavior change theories applied in health conditions (Painter et al., 2008; WHO, 2011). The concept of the theory focused on the importance of self-regulation as a source of behavior change, which was broken down into three core components: self-monitoring, self-judgment, and self-evaluation (Bandura, 1986, 1991). Arbitration based on the social cognitive theory of self-regulation was useful for improving outcomes in some health disorders. The selection of the specific theory components and associated mechanisms was chosen to address the particular intervention characteristics that remained unclear. This theory was used in the development of existing interventions and provided an example of how literature was reviewed and explored the use of theory as a framework for existing interventions. Researchers used the social cognitive theory of self-regulation to inform health conditions.

Bandura's (1977) social cognitive theory stood in clear contrast to theories of human functioning that overemphasized the role those environmental factors that played in the development of human behavior and learning. The social cognitive theory and human motivation actions were extensively regulated by forethought. This anticipatory control mechanism involved three types of expectancies: (a) situation–outcome expectancies, in which consequences were cued by environmental events without personal action, (b) action–outcome expectancies, in which outcomes flow from personal action, and (c) perceived self-efficacy, which was concerned with people's beliefs in their capabilities to perform a specific action required to attain a desired outcome (Bandura, 1986, p. 25). The social cognitive theory proposed that personal, behavioral, and

environmental factors operated as determinants of behavior. Interventions derived from the social cognitive theory focused on the importance of how an individual's ability and environment produce changes in behavior. While some social-cognitive approaches have received mixed results for motivation and cognition action applications, interventions targeting self-efficacy and decision-making strategies have accumulated significant support (Mitchell, Brodwin, & Benoit, 1990).

Self-Efficacy and Social Cognitive Theory

Self-efficacy is a central concept within the social cognitive theory and is the degree to which an individual believes they can successfully execute a behavior (Bandura, 1977). Self-efficacy can be altered through performance accomplishments, vicarious experiences, verbal persuasion, and physiological state. In self-efficacy, a person's beliefs about their ability to accomplish a specific behavior in a particular venue were encouraged by change and experience in mastering the actual developing occurrence of forming an opinion (Bandura, 1977). As for the in increasing beliefs of self-efficacy, this aspiration was accomplished by the implementing performance indirect knowledge, oral influence, strengthening, diminishing undesirable feelings felt by the client.

There exists a body of evidence, which supported the relationship between control beliefs and disability. The WHO's (1980, 1998, and 2001) multidisciplinary model of disability identified three components of disability: impairment, activity limitations, and participation restrictions. It defines impairment as any loss, abnormality or failure of a psychological, physiological or anatomical structure or function deriving from underlying

pathology (WHO, 1980, 1998, 2001). Impairment was typically measured at the level of the organ or limb (e.g., neurological functioning, limb rotation), assessing damage resulting from disease or disorder (Johnston & Pollard, 2001). In the model, activity limitations are difficulties an individual may have in executing activities (defined as tasks or actions) and were measured at the level of the person, assessing their ability to perform operations such as those of daily living (e.g., eating, bathing, walking). While it is a disease-based construct in this model, given the nature of its definition and measurement, it is also possible to view activity limitations regarding behavior.

Expanding the perception of disability allowed the possibility of influencing functional outcomes of manipulating predictive psychological variables, without necessarily curing disease or changing impairment (Johnston, Bonetti, & Pollard, 2002). In investigating the influence of psychological variables on activity limitations, Johnston (1996, 2002) suggested integrating a psychological model with the WHO model. She illustrated this suggestion using Ajzen's (1991) theory of planned behavior since this model describes a causal process and is parsimonious with control beliefs and intention as the only proximal determinants of behavior. Because control beliefs and purpose are modifiable, this integrated model offers extended opportunities for interventions to reduce activity limitations beyond those presented by the WHO model alone (Kaplan & Atkins, 1984). Evidence from experimental studies and rehabilitation programs suggests that reducing impairments may not have maximal effect on reducing activity limitations, unless control beliefs about performing the behavior are influenced (e.g., Ewart, Taylor, Reese, & Debusk, 1984; Fisher & Johnston, 1996; Johnston, Morrison, MacWalter, &

Partridge, 1999; Lorig, Chastain, Ung, Shoor, & Holman, 1989; Mahler, Kulik, & Tarazi, 1999; Williams et al., 1993).

In separate reviews, Furnham and Steele (1993) and Thompson and Collins (1995) discussed the plethora of sphere-specific measures of control beliefs available. Skinner (1996) listed more than 100 different perceived control concepts with similar but not identical operationalization. It is therefore difficult to fully understand or integrate the results of studies investigating control beliefs, an important issue because how control beliefs are defined and measured has implications for intervention design. For example, the integrated model discussed above incorporates the theory of planned behavior. The control belief conceptualization from the theory of planned behavior perceived behavioral control, can be defined regarding expectancies about how difficult it will be to carry out a behavior. This may encompass both internal factors (e.g., skills, knowledge, and confidence) and external factors (facilitating/inhibiting conditions, availability of resources). The theory presents these control beliefs as influencing behavior directly or being mediated through intention. Interventions based on this framework are designed to shift expectancies relating to the difficulty of performing a behavior (Conner & Sparks, 1996).

In social learning theory (Rotter, 1990), control beliefs are conceptualized as the locus of control (LOC), referring to the expectations relating to outcome contingencies. People with an internal LOC, who believe outcomes are contingent upon their behavior, are considered to be more likely to take active responsibility for their health and strive harder to recover from health threats. Interventions based on this model are designed to

increase internality (Lefcourt, 1976). In social cognitive theory (Bandura, 1997), control beliefs are conceptualized as self-efficacy, to describe beliefs as abilities to implement accomplishments. According to this theory, an individual may believe that it is up to them to take responsibility for their health (high internality), but still fail to take precautionary health actions as they do not believe they can do what is necessary (low self-efficacy).

Interventions based on this model are designed to increase a person's confidence in their ability to perform a behavior (Lorig et al., 1996; Schwarz, 1992). All models predict that enhancing perceptions of control will result in more performance of the behavior. However, there is not anything in the literature to support one model's concept over another when it comes to predicting activity limitations, particularly since measures cover a wide range of activities, each of which may be associated with different control expectancies (Johnston et al., 2002). There is also considerable ambiguity concerning the relationship between the control concepts. While conceptually independent, it is highly likely that measures within the perceived control domain would be related to each other and even that they would interact. For example, confidence in one's ability or perceptions of externality may both be expected to influence perceptions of behavioral control. However, questions operationalizing one concept provided information about another (e.g., asking about internality will give no information about confidence). Scales ostensibly measuring one control concept may consist entirely of items that, theoretically, operationalized a different control concept, such as when perceived behavioral control measures only include self-efficacy items (Conner & Armitage, 1998).

Pragmatically, this would not be a problem if the control concepts and standards were interchangeable. Then they should be equally predictive and enhancing any of the control concepts should be similarly effective in improving behaviors operationalizing activity limitations. However, there is evidence that different measures of control beliefs are not factorial similar and that they can be differentially sensitive to health outcomes (Bonetti et al., 2001; Manstead & van Eekelen, 1998; Terry & O'Leary, 1995; Wallston, 1992). Measurement contamination or employing only one concept per study may have masked or influenced the predictive or explanatory power of control beliefs for activity limitations in the literature.

Self-Efficacy

Self-efficacy is a concept that was established in 1977 by Bandura. This concept was devised from the social cognitive theory. Self-efficacy was created for a better understanding and in-depth information on the perception of the foundation (Bandura 1977). However, self-efficacy for as being a concept of this theory was considered as a form of self-evaluation that described the cognitive functioning of an individual's behavior patterns. Nonetheless, an individual's belief may differ in level, of achievement, and vigor (Bandura, 1997). A lower level regarding confidence signifies making the behavior of activity difficult in completing a task when an individual experiences uneasiness to perform a mission. In this matter, a quantity for self-efficacy concerning the individual is determined by the degree of a function that was presented.

A generalization for self-efficacy specified a variety of tasks when an individual expressed that he or she can complete an assignment. While some people were proficient

when they handle a lot of responsibility in a specific time frame in a short period; many people might be competent in more functional capacities. An individual with strength is considered a person with confidence that was able to complete the task at hand. Self-efficacy does not necessarily declare that an individual partakes in a mission, indicated more determination when confronted with obstacles.

Bandura (1984) presented an example of driving a car. In this example, an individual felt confident when driving in heavy traffic, but was not self-self-confident in their skill to implement, an undertaking in altering the gears and exploiting the gas pedal. In this situation, a person felt that they were able to do many tasks at one time through predicted and managed sudden settings. The conception of the self-efficacy concept can be converted with approaches in the workplace. Individuals encounter skills and become competent in their occupation and have confidence in completing several specific tasks. This individual uses the concept of self-efficacy when performing and to handling judgment in allocating unexpected environments. These behaviors are not needed for an individual's proficiency to complete a task continually, although the actions can be used when thinking critically and making decisions for demanding situations.

Four Techniques of Acquiring Self-Efficacy Beliefs

Mastery Experiences

Because the foundation of an individual's childhood the concept of self-efficacy beliefs has been experienced. This acknowledgment of one's self-continue though the duration of the individuals' life concerning their abilities. There are four essential foundations that aid in the development of self-efficacy beliefs.

Foremost, mastery experience was the primary source of self-efficacy beliefs. This experience was essential because it helped with achieving performance and decreased apprehension stimulation. To increase self-efficacy, individuals required common task-occurrence, which was referred to as mastery experience. This type of belief regarded to awareness and ability that is obtained through knowledge and persistence.

In self-efficacy, the idea was achieved, and a few failures should be experienced. If achievement and accomplishments are not met, this was not as important as comprehending the importance of the experience of the individual's abilities (Bandura, 1982). As a result, enactive mastery experience has been considered as the most effective technique of the self-efficacy beliefs because repetitive accomplishments for specific tack increase an individual's self-efficacy's hopes of achieving the goal that they have strived to accomplish though beliefs and experiences.

Social Modeling

The second source in identifying self-efficacy beliefs as an experience is called social modeling. This experience has been utilized as a paradigm of association in skills that are necessary to complete a specific task (Bandura, 1997). As for this type of experience, it includes observing other people that are skilled in an area to evaluate whether they acquire the ability and endurance in conquering the same or a higher level of skill. Many factors were associated with how important social modeling is a source of self-efficacy, including the level of skill at the time that modeling was observed and similarities between the individual and the person who was served in the model. The

demonstration was also significant in producing the results for beliefs that showed actions that positioned a person to receive a reward that cannot be duplicated by a spectator that would later reinforce a punishment (Schunk, 1999).

Social modeling increased beliefs due to self-efficacy that was frequently connected to relationships of individual qualities of the witness and the person that's being examined. Those who are comparable serve the most useful representations that are prone to intensify the observer's beliefs of self-efficacy (Bandura, 1987). It has been indicated that monitoring an individual that was dealing with complications earlier in undergoing achievement were combinations and more efficient in intensifying self-efficacy than examining an individual who completed an activity with hardly any difficulties (Bandura, 1997).

Verbal or Social Persuasion

The third source for self-efficacy belief is verbal or social persuasion that helped with reinforcing beliefs of efficacy as soon self-doubt has been lifted. Even though social persuasion has not been classified as the most critical approach for self-efficacy support, it prepares the individual to continue to have determination and confidence in themselves while they are undergoing beliefs of uncertainty (Bandura, 1977). In a research study containing undergraduate scholars who unintentionally received both undesirable and nonaligned response from an anonymous person that was classified in an administrative position, Baron (1988) discovered the persons who obtained pessimistic criticism were expected to have a low self-efficacy belief on following tasks.

In verbal and social persuasion this source of self-efficacy belief is useful if it comes from anyone that the individual believes is a trustworthy person for advice. With stroke survivors, self-efficacy was reinforced through a nurse, physicians, and additional health professionals that offer positive and accurate views on concerns on circumstances that are not adequately prepared to discuss (Malone, 2001). The pursuits of physical or psychological interventions that are prepared remained influential in amplifying strokes survivors' beliefs of self-efficacy (Malone, 2001).

Psychological Responses

Last of the four sources of self-efficacy are psychological responses; this source also provided knowledge for individuals to evaluate themselves. People have emotional and physical reactions that challenge them in different circumstances. These situations affect individuals differently. Individually, a person's moods and stress level have a significant impact on how they feel about themselves and their ability to accomplish goals. According to Bandura (1977), it was not the strength of a person's emotional and physical reactions, but the importance of the matter was, their perception and interpretation of themselves when dealing with stress, elevating their moods and facing a difficult task.

Investigations on this topic revealed that events that were in the past have been recollected from feelings that relate to experiences that have been done multiple times (Bower, 1981). This altered the individual's perception of somatic responses in complex situations, such as beliefs associated with anxiety, distress or shame that change one's beliefs of self-efficacy (Cioffi, 1991). However, beliefs of self-efficacy have indicated a

major influence on motivation and the amount of time the individual puts into the goal he or she was trying to achieve. The higher the level of self-efficacy there was a higher goal of positioning. This act of being able to set the commitment to attain the goal helped to reach the goal. (Bandura, 1989). The robust obligation to achievement enhanced the chances that the aim of achievement was accomplished (Bandura & Schunk, 1981). To believe in a person's abilities reduced the pressure and hopelessness that was faced by intimidating situations (Bandura, 1989), thus amplifying the chances that these complicated circumstances was overpowered by motivation to endure to the end.

Prediction and Components of Self-Efficacy Scores Used with Stroke Survivors

The association between prediction for the quality of life and the evaluation with self-efficacy scores for stroke survivors concerned social, psychological, and physical aspects of an individual's life. Most of the healthcare professionals focused on the physical functioning of stroke survivors thus failed to address the mental and social problems experienced in daily living (Maujean & Davis, 2013). Stroke survivors face new realities as they cope with physical and cognitive impairments (Robinson-Smith, 2002). They face social isolation, dependency on other people, low self-esteem, fears of disfigurement and death, and loss of identity (Orest, 2000). The belief of the stroke survivors regarding their abilities to overcome difficulties encountered in daily living determined their outcomes. When self-efficacy was observed and involves an individual's confidence level; the person controlled their existence in his or her life (Maujean & Davis, 2013). Preliminary research showed high self-efficacy scores as being

a constructive impact on balanced, substantial and effective in individuals. However, there was a gap in research in exploring the association concerning self-efficacy scores and another domain attributed to functioning (Maujean & Davis, 2013).

Stroke is a cause of acquired disability (Bootsma-van der et al., 2002; Odding, Valkenburg, Stam, & Hofman, 2001). Trends in risk factors suggested that the high incidence of stroke continued (Cooper et al., 2000). Interventions to reduce poststroke activity limitations have concentrated on early pharmacological treatment to minimize neurological impairment (Warlow et al., 1996). The possibility that psychological interventions improved functional outcomes for stroke patients is an important one to investigate.

Robinson-Smith et al. (2000) determined the relationship between the self-care self-efficacy to quality of life, functional independence, and depression in stroke survivors. Robinson-Smith et al. indicated the scores of self-efficacy were enhanced following a stroke and effectively related to depression and the measures for life and living a quality one. While being in a depression state decreased over time, the functional independence and quality of life increased (Robinson-Smith et al., 2000). Nurses and other healthcare providers assisted stroke survivors in boosting their confidence and motivation after a stroke through the encouragement of self-care self-efficacy behaviors thus improving the quality of life.

Jones and Riazi (2011) conducted a qualitative research study to determine the impact of self-efficacy scores for treatment results of cerebrovascular accident survivors. Researchers identified self-efficacy as a variable in poststroke outcomes by conducting a

systematic review of relevant articles from databases. The issues included the perceived health status, quality of life, physical functioning, and depression. However, there was a gap in this research, and more empirical evidence is needed on the additional analytical significance for scores based on self-efficacy beyond the measures of impairment in the stroke survivors.

As a psychological construct, self-efficacy has been recognized and has received considerable attention for survivors with different chronic conditions that include stroke. Bandura (1994) introduced a construct of social learning theory as the beliefs of people regarding their abilities generate selected stages of operation over the events to affect their lives. The views of self-efficacy change the way people think, feel, and motivate them regarding their health and self-management (Korpershoek, van der, Bijl & Hafsteinsdóttir, 2011). Self-efficacy has been found to arrange importance with attributes of continued and developed as well as survived the delays of cerebrovascular accidents. People escaped from stroke gain confidence through the accomplishment of personal goals through individual effort. On the other hand, vicarious experiences were gained through knowledge and formed through different experiences and while the stroke recovery period was materialized. Verbal persuasion increased the belief of patients concerning their skills. Besides, the interpretation of emotional and physical feelings of individuals, such as unaided walking after stroke, increased self-efficacy and improved the quality of life of the patients (Korpershoek et al., 2011).

Self-efficacy is self-assurance of a person's ability to accomplish a specific behavior. Most of the interventions that enhanced self-efficacy elicited positive effects on

the outcomes of stroke. Cognitive function is associated with self-efficacy, which played a significant role in the recovery of stroke patients. Increasing the methods for individuals with long-term illness, such as stroke, take part in self-management improved their quality of life significantly. Persons who have sustained stroke experience psychological conditions such as aggression, emotional lability, anxiety, and depression. It is crucial to understand the emotional reactions of the stroke patients concerning the life-altering events. A nurse's role for physical, social, and psychological recovery for stroke survivors is essential.

King (1996) aimed to explore the complete area of a specific property for living as long-term stroke survivors in identifying variables that predicted the quality of life after stroke. A cross-sectional, descriptive correlational design was utilized with 86-stroke survivor's participants that were interviewed 1-3 years after they had their stroke. Living a quality life was evaluated by using an apparatus that measured the fulfillment and the significant in four areas (health, family, psychological-spiritual functioning, and socioeconomic). There were several independent variables used in connection with the prediction that was analyzed by multiple regression. The depression rate for participants score was 30%. The quality of life overall mean score was high compared to a healthy population. In addition to the quality of life was investigated the family province was at the top of the list and health functioning was at the bottom of the list.

Depression was apparent and public assistance and the status of function that was predicted with the quality of life (altered R2=.38) and influenced the expectation in quality of life. Community funding and there were three added variables such as social

class, age, and cardiovascular disease was predicted that socioeconomic and the quality of life. The relationship of depression and the predictors of quality of life recommended assistance for stroke survivors. Managing and maintaining the strength of stroke survivor's support systems with physical and psychological challenges after their strokes aids in survivor rates.

Bivariate Relationship Between Independent Variables

Age

There are mixed outcomes concerning the connection between age and subjective well-being of a person. Young people are happier than older ones. More recent studies have revealed practically no age effect, while other researchers have reported happiness increases with age (Jones, Mandy, & Partridge, 2009). Nevertheless, subjective wellbeing comprises of two primary elements, which include practical aspect (impulsive thoughts of happiness and misery generally attributed to recent experiences) and life satisfaction, which refers to intentional global judgment to one's life. When evaluating the connection between personal health and age in a sample of 2,000 adults across 30 countries, Heckman and Grable (2011) found a slim upward trend in life satisfaction. Conversely, Vargas-Tonsing (2009) found that practical aspects of subjective safety to bear adverse effect across age cohorts, but the social impact reduced with age. The number of years a human has been living defined age a term in the literature.

Age was also classified as an as the stage of development at which the body has arrived and measured by physical and standards to what is typical for a male or female of the same chronological span of life (Mosby, 2009). Globally, stroke is prone to any

individual. Stroke happen at any age, there are many young people do not think a stroke could happen to them. Researchers clarified that younger people did not recognize the symptoms of a stroke. It has been investigated that younger people have more strokes because they were obese, had high blood pressure, and diabetes. It has been suggested that living a healthier lifestyle, doing more physical activity, and maintained a good diet help prevent a stroke (Singhai et al., 2013).

In addition to age, strokes in young adults are not common and have issues being solved. A group of researchers reviewed the medical records of 113 young patients aged 15-45 years who were admitted to the Medical Center Hospital of Vermont with a diagnosis of stroke between 1982 and 1987. These individuals within the group contained 8.5% of patients of all ages for stroke, 2.3 times the proportion observed in the National Survey of Stroke (Beven, Sharma, & Bradlely, 1990).

Nontraumatic intracerebral hemorrhage was diagnosed in 46 young patients (41%); the leading causes included aneurysms, arteriovenous malformations, hypertension, and tumors. Subarachnoid hemorrhage was found in 19 young patients (17%); the majority was due to aneurysms. The remaining 48 young patients (42%) had cerebral infarction, the majority due to cardiogenic emboli and premature atherosclerosis. Mitral valve prolapses, the use of oral contraceptives, alcohol drinking, and migraine were infrequent sole causes of cerebral infarction in the absence of other risk factors. The case-fatality rate for this group of young patients with stroke was 20.4% compared with 23.9% for the National Survey of Stroke. Young adults with stroke deserve an extensive

but tailored evaluation, which should include angiography and echocardiography (Beven et al., 1990).

Ethnicity

Researchers have shown insignificant connections between ethnicity and stroke risks. According to Mullen and Kelloway (2009), ethnicity creates both psychological and social advantages. However, this does not mean that ethnicity increases vital to the meaning of daily life. In a meta-analysis of 30 previous studies, it emerged that ethnicity accounts for around 1% of the variance in the poststroke experience. Lambert (2008) suggested that ethnicity improves cognitive benefits of well-being following stroke by multiplying feelings of efficacy, control, care, and security. Ethnicity is a population of an individual's organization based on his or her assumed common culture origin.

Gender

Past researchers explored the connection between gender and subjective well-being has shown that there are no significant gender differences with stroke. Pare et al. (2011) revealed that women, on average, report higher cases of stroke than men. Based on these findings, it is unexpected that women record greater degrees of negative affectivity, for example, depression is more common in women than in men. Still, it is crucial to note that although gender has not always been found connected to the wellbeing of stroke patients, the amount of variance accounted to gender is comparatively small. For instance, Julliard (2008) found that gender contributed to less than 2% of the difference.

The impact of gender and stroke knowledge is poorly understood. There were many differences between men and women in life. Through the years, the results of stroke studies often point out gender differences. It has been shown that men and women have different cardiovascular diseases risk factors. Men and women have a different response to medical treatment, therapeutic interventions, as well as stroke, disability, and care (Baird, Silver, & Gjelsvik, 2015).

Data have shown women to be significantly older than men when a stroke occurs, and more likely to suffer from a cardioembolic stroke and have atrial fibrillation as a risk factor. Stroke onset differs among men and women. An acute stroke in women usually follows with a coma, paralysis, aphasia, swallowing difficulties, and urinary incontinence. For women, the literature revealed that there are a more significant disability and handicap after stroke than men. It has been noted there is the difference as to where patients are discharged after a hospital stay. Women are more often released to a continuing facility, whereas men often return home. These differences indicated social differences. In the literature, a cross-sectional study of 132,604 participants was conducted through a Behavioral Risk Factor Surveillance System Survey, a national telephone survey. There were adults aged 18 years or older who lived in one of 19 states that were administered an optional stroke module asking them to correctly identify stroke symptoms and the correct action to take was included. The primary outcome was a low score ($\leq$ 4 of 7) on the Stroke Symptoms Knowledge Scale (SSKS).

Logistic regression was performed for the overall sample and then stratified by gender, with adjustments made for age, race, Hispanic ethnicity, income, and whether

respondents had a primary doctor (PMD). Data were weighted as recommended by the Centers for Disease Control. The results of this study revealed that in all, 51.7% of the weighted sample were women. Fewer women than men had low scores on the SSKS (21% versus 25%, $p < .001$. After adjusting for age, race, ethnicity, income, and PMD, men had higher odds of having low scores adjusted odds ratio 1.36; 95% *CI* [1.28-1.45]. After stratifying by gender, Hispanic ethnicity, and age, younger than 35 years predicted low scores on the scale in women, but not in men. The research study concluded that female gender is associated with better knowledge of stroke warning signs, but a gender-specific approach identified Hispanic women, young women, and black participants as subgroups at risk for having poor knowledge, suggesting the need for targeted stroke education to increase stroke awareness in these groups (Bair et al., 2015).

Quality of Life

The connection between quality of life and poststroke has been evaluated by Lambert (2008). A total of 50 stroke survivors from rehabilitation centers in Kuwait participated in this research. The participants were examined at 1 and 4 months poststroke, and questionnaires were utilized to examine self-efficacy, qualify of life, gender, and age. Quality of life was determined by use of Strategies Used by People to Promote Health questionnaire (SUPPH). This is a 40-element questionnaire, which evaluates patients' confidence in their potential to perform self-care behaviors. The validity and efficiency of this measurement scale have been confirmed. Twenty-five of the 40 items of the range were improved by Munir and Nielsen (2009) to be used in their research on stroke survivors. The alternation on this scale occurred because it was

initially intended to be used with people living with cancer, and thus some items were inappropriate for stroke victims. Nevertheless, the validity and efficiency of the adapted scale were not verified (Vargas-Tonsing, 2009). For that matter, quality of life was assessed through Quality of Life Index-Stroke version (QL1). This is a 60-item questionnaire that determined satisfaction with and the significance of the following health-related aspects: body functionality, subjective beliefs, and family support. The subjects rated satisfaction and the importance of the four categories on a six-point scale.

The outcomes indicated that at one month and 4 months poststroke, low ranking aspects on the quality of life device included joblessness and sex-life disturbances. These scores improved with time. It emerged that the scores for quality of life are strongly correlated with the quality of the survivors' lives. The correlation between self-efficacy and quality of life over the 4 months poststroke was ranging between 0.32 to 0.62, $p < 0.001$. It was revealed that self-care inversely correlates with depression at 1 to 4 months poststroke. Subjects reporting high prevalence scored significantly lower in depression scores. From the FIM scale, it was revealed that at 1month poststroke, functional independence was insignificantly related to the quality of life, but significantly connected to depression.

DLSES Scale Discriminability (Dependent Variable)

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independence was insignificantly related to the quality of life, but significantly connected to depression.

Stroke the Illness

Stroke is a global health problem; therefore, it is imperative to know about the pathological pathways to help the treatment of stroke. Stroke is a heterogeneous group of cerebrovascular conditions and is a sudden and devastating illness. However, many people are unaware of its widespread impact (Mergenthaler & Meisel, 2012).

A stroke or brain attack occurs when a blood clot blocks the blood flow in a vessel or artery, interrupting blood flow to an area of the brain result damage of brain cells. When brain cells die during a stroke, abilities controlled by that area of the brain are lost. These include functions such as speech, movement, and memory (Kumar, Kumar, & Reddy 2012; Sacco et al., 2013).

Prognosis of Stroke

Researchers have observed the studies done on stroke, and they have confirmed that a stroke is a global health problem that is continually broadcasted nationally. As a result, stoke it is the now the fifth reason for death plus the third leading reason for disability worldwide (American Heart Association, 2000). Approximately 20 million people each year will suffer from a stroke and of these 5 million will not survive.

Thus far, the research articles on the prognosis of stroke patients were analyzed to identify studies that met sound methodological principles of prognostic research as well as to identify variables capable of predicting the functional outcome (ADL) after stroke.

Data sources comprised a computer-aided search of published prognostic studies and references to literature used in prognostic studies.

Seventy-eight studies were tested for adherence to the following critical methodological criteria: reliability and validity of measurement instruments used to assess dependent and independent variables; inclusion of an inception cohort; adequate and uniform end-point of observation; control for drop-outs during period of observation; statistical testing of presumed relationship between dependent and independent variables; sufficient sample size in relation to number of determinants; control for multicollinearity; specification of patient characteristics (i.e., type, recurrent stroke and localization of stroke); description of interfering treatment effects during the period of observation; and cross-validation of the prediction model in a second independent group of patients.

Only three studies satisfied nine out of 11 criteria, and 10 studies eight tests for the determination of valid prognostic research. The results of these studies indicated that the following variables are accurate predictors for functional recovery after stroke: age, previous stroke, urinary continence, consciousness at onset, disorientation in time and place, severity of paralysis, sitting balance, admission ADL score, level of social support, and metabolic rate of glucose outside the infarct area in hypertensive patients. This study supported the general opinion that not only are differences in objectives and heterogeneity in stroke patients responsible for the lack of accuracy in predicted functional outcome, but also the methodological flaws in the published prognostic research.

Stroke and Rehabilitation

The positive effects of rehabilitation on physical functioning were well documented in stroke literature. More controversial results arise from the evaluation of the impact on quality of life. According to Tramonti, Fanciullaccib, Giuntic, Rossib, and Chisarib (2014), the aim of their study was to examine the associations among functional status and different measures of quality of life in a sample of inpatients undergoing rehabilitation programs, and to consider the role of psychological distress, coping strategies, and social support.

Twenty-nine stroke survivors were evaluated at the admission to a hospital-based rehabilitation unit and just before discharge. Questionnaires for the evaluation of functional status, health-related quality of life, individualized quality of life, psychological distress, coping strategies, and social support were administered to them. While functional status improves significantly after treatment, individualized evaluations of the quality of life seem to be less affected. Adaptive coping strategies and social support showed significant correlations with positive outcomes on specific quality of life domains, whereas psychological distress was associated with adverse outcomes. The data from the present study support the evidence that different measures of quality of life and functional status are not strongly associated one another, and that psychological distress, coping strategies, and social support can be significantly related to specific outcome measures.

According to Lalit and Eade (1995), stroke unit rehabilitation tends to be directed toward stroke patients with moderately severe disabilities A randomized controlled study

was undertaken in 71 patients with a poor prognosis who were treated either on a stroke rehabilitation unit (n=34) or on general wards (n=37) to compare outcome between the two groups. The hypothesis that stroke rehabilitation units may improve outcome in severely disabled stroke patients was tested in this study. Data collected were also compared with those of a methodologically similar research undertaken 3 years ago.

Severe stroke patients treated on the stroke rehabilitation unit had a significantly better outcome compared with general wards (mortality: 21% versus 46%, $p < .05$; discharge home 47% versus 19%, $p < .01$; median length of hospital stay: 43 versus 59 days, $p < .02$). The number of stroke unit patients being discharged home had increased significantly from another study, with a trend toward improvement in median discharge Barthel Index score.

Clinical and regular research attention in stroke care has been on managing the acute stage of stroke recovery and on evaluating the effectiveness of relatively short-term rehabilitation programs. However, stroke can diminish the quality of life and the wellbeing of patients' families. The literature reviewed the effects of stroke on family functioning and discussed stroke concerning clinical problems that make rehabilitation a family dilemma. Issues identified in the literature include the need for family assessment, education, advocacy, and counseling to foster treatment compliance and social support after stroke. Stroke rehabilitation units may improve outcome in severe stroke patients. This improvement appears to be due to the development of innovative management strategies that reduce mortality and institutionalization and enable caregivers to support more disabled stroke patients at home.

Stroke Survivors

Stroke leads the reason for mortality and disability globally. All stroke survivors experienced some levels of psychological, physical, and cognitive disabilities soon after suffering from the stroke. The degrees of the functional deficit are based on the nature and seriousness of the stroke, and the location of the brain affected by this condition. Following the stroke, nearly half the survivors remain dependent on family members and caregivers, in the first one and a half years (Lambert, 2008). It meant that stroke posed a huge issue not only to survivors and the family members, but also to the caregivers and the entire health system.

Jones, Mandy, and Partridge (2009) revealed that stroke is the most common disabling disease in the world today. Nearly 20 million people yearly experienced stroke worldwide, with the majority dreading the permanent disability consequences. In Australia, for instance, one in every four persons died every month have battled with stroke, while one in three victims died within the first 5 months of this condition. Around one in eight survivors of stroke experienced another stroke after some time (Pare et al., 2011).

The latest report from the Australian Institute of Health and Welfare (AIHW) indicated that an estimated 40,000 people suffer from stroke annually. Eighty percent of these victims are first-ever stroke cases. Seventy percent of persons with stroke in Australia are aged above 60. Around 85% of all stroke survivors remain at home with friends and caregivers or alone. Most stroke disabled persons are twice likely to beg for assistance from family members compared to persons whose disability is due to coronary

heart problems. Stroke encountered 5,000 deaths in 2008 in America (Pare et al., 2011). However, the mortality rates have reduced due to improved treatment and management of acute stroke condition. The ongoing health care and services have led to an increase in the number of the stroke survivors.

Assessing Self-Efficacy

The connection between self-care efficacy, functional independence, age, gender, and quality of life poststroke has been evaluated by Lambert (2008). A total of 50 stroke survivors from rehabilitation centers in Kuwait participated in this research. The participants were examined at 1 and 4 months poststroke, and questionnaires were utilized to examine self-efficacy, qualify of life, gender, and age. Self-efficacy was determined by use of SUPPH. This is a 40-element questionnaire, which evaluates patients' confidence in their potential to perform self-care behaviors. The validity and efficiency of this measurement scale have been confirmed. Twenty-five of the 40 items of the range were improved by Munir and Nielsen (2009) to be precise in their research on stroke survivors. The alternation on this scale occurred because it was initially intended to be used with people living with cancer, and thus some items were inappropriate for stroke victims. Nevertheless, the validity and efficiency of the adapted scale were not verified (Vargas-Tonsing, 2009). Quality of life was assessed through QL1.

This is a 60 elements questionnaire that determined satisfaction with and the significance of the following health-related aspects: body functionality, subjective beliefs, and the family support. The subjects rated satisfaction and the importance of the four significant items on a six-point scale. Validity and efficiency of QL1 have been

verified (Heckman & Grable, 2011). Lequerica, Donnell, and Tate (2009) illustrated its validity and efficiency for use in stroke assessment. Functional independence was evaluated with the help of the Functional Independence Measure (FIM). The data collected were analyzed through Pearson correlation and hierarchical regression method.

The outcomes indicated that at 1 month and 4 months poststroke, low ranking aspects on the quality of life device included joblessness and sex-life disturbances. Scores of gender, age, self-efficacy, and quality of life improved with time. It emerged that the scores for self-efficacy are strongly correlated with the quality of the survivors' lives. The correlation between self-efficacy and quality of life over the 4 months poststroke was ranging between 0.32 to 0.62 (p<0.001). It was revealed that self-care inversely correlates with depression at 1 to 4 months poststroke. Subjects reporting high prevalence scored significantly lower in depression scores. From the FIM scale, it was revealed that at 1-month poststroke, functional independence was insignificantly related to the quality of life, but significantly connected to depression. However, at 4 months poststroke, independence indicated a higher connection with the quality of life, but not depression. Mullen and Kelloway (2009) argued that quality of life was lower to stroke survivors who were aged and retired compared to young and working stroke survivors. The claims were proved in this study, where retired participants, living alone at 4 months poststroke indicated worsening depression symptoms compared with the stroke survivors living with friends and relatives. Nevertheless, no description has been made concerning the effect of relationships on depressive symptoms.

Implications of Past Research on Present Research

For this area of study, many studies were used to investigate phenomena influencing health behaviors and their provisions. In identifying the scope of published studies of stroke and their relevance was to develop the delivery of services for people who have had strokes in the past and paved the road for advancement for present outcomes in regards for recommendations for future work.

A study of health professionals who cared for patients after stroke, nursing staff members spoke about the work of improving patient confidence and prepared patients for life after their discharge from the hospital. The study was based on the social-cognitive theory of perceived self-efficacy (Bandura, 1987) and nursing self-care theory pointed out that patients believed in their competence to perform self-care before they attempted self-care activities. Belief in personal power (i.e., self-efficacy) was a necessary prerequisite to self-care activities. Self-efficacy was improved through four pathways: performance accomplishments, vicarious experience, verbal persuasion, and physiological states (Bandura, 1986). When self-efficacy was high, a person believed he or she coped with stressful life situations. If dealing was not successful, the resulting helplessness was often expressed through decreased motivation (Bandura, 1977).

Three million Americans live with various kinds of disability from stroke. A greater understanding of the psychological aspects of stroke enhanced the practice of neuroscience professional who works with stroke survivors. Self-efficacy attitudes influenced recovery of, quality of life after a cerebrovascular accident. Among stroke patients, increased self-care self-efficacy was related to higher quality of life and fewer

depressive symptoms (Robinson-Smith et al., 2000). Functional independence at discharge (1 month after stroke) predicted 20% of the variance in quality of life at 6 months after stroke and useful ability affect the quality of life achieved by patients after stroke. Professionals were recommended to help patients develop healthy coping skills such as reappraisal of control and ways to enjoy life to improved quality of life after stroke. Presently research was being addressed to caregivers and professionals to govern over the process of stroke survivor's recovery journey for a quality of life.

Summary and Conclusions

This study showed the possible prediction of several independent variables on one dependent variable. As a result, this evidence was validated regarding the four predicted variables and an outcome variable that associated with stroke survivors. In general, this research study was used to determine the proof of self-efficacy scores. These findings were used to translate research into clinical practice for professors and clinicians in this area of study. However, for this research study, age, ethnicity, gender, and quality of life measured and was evaluated and reveal the results of self-efficacy scores.

The information presented from articles in this literature review has been an exploration of studies and more should be done. It is essential to understand the effects and the impact associated with stroke. It is necessary to know that strokes happen every day ranging from different age groups; whether female or male instead they have a different ethnicity. The various research outcomes emphasized the ability of human beings to apply control over their self-perception and behavior despite the severity of stroke. Stroke survivors have a significant role to play towards a positive response of their health

system, wellbeing, and quality of life. This malady also affects men, women, adolescents, children, and infants. This condition does not discriminate. As a result, this illness affects anyone. However, an individual must not give up; they have to strive to have a quality of life to maintain their self-efficacy and excel in their daily living in doing the things that they enjoy doing. In the next, the chapter there is an in-depth discussion of the methodology of this current study addressed in Chapter 3.

Chapter 3: Research Method

Introduction

The purpose of this study was to explore four predictors among stroke survivors: age, ethnicity, gender, and quality of life. These variables were selected by interest for study. The variables in the study affected the response and was measured by researcher and capabilities on the dependent variable and predicted for independent variables. Brain attack is the third leading cause of death in the United States (American Heart Association, 2000). Better known as a CVA, or stroke, it involves the sudden interruption of blood flow to the brain, killing brain cells and destroying or impairing bodily functions of the brain (American Heart Association, 2000). Strokes afflict approximately 600,000 individuals each year, claiming the lives of about 150,000 victims. Strokes are also the leading cause of serious, long-term disability in the United States. Currently, there are 3 million CVA survivors in the United States that have a permanent disability from a stroke (American Heart Association, 2000). Despite the extensive research on strokes, was not much attention given toward age, ethnicity, gender, and the quality of life, and what happens afterward. This research study served the interests of individuals who are stroke survivors, as well as their families and friends. It served an educational purpose for those who are unaware of strokes and the life after a stroke.

Chapter Preview

Chapter 3 contained four sections and several subsections. The following topics are discussed in this chapter: Research Design and Rationale addressed the relevance of using a quantitative approach for the current study. The Methodology section described

the methodological approach and procedures included the kinds of data required, the methods involved in gathering the data, presentation techniques, and the process of the analysis employed for the course of the study. It also provided a detailed description of the sample and presented the description of the criteria that was used to choose the participants followed by the steps that were taken to recruit the sample of participants. Next, the procedures for recruitment, participation, and data collection section provided an accurate description of how the information was needed for the research gathered from the selected participants and collated into a more organized and comprehensible dataset. It also presented the instruments in the chapter discussed the tools that were used to measure the variables were involved in the study. The data analysis plan was used to evaluate the extent of the chosen methodological process to measure the constructs and the accuracy of the tools used for measuring the constructs. The ethics procedure section discussed the potential ethical issues identified in the process of data collection and how they were addressed or resolved. Finally, the summary gave the contents of the current chapter and succinct description of the design and procedures were used to address the study's objectives and introduced the next chapter was presented.

Research Design and Rationale

This research study was a quantitative, descriptive correlational study that used a statistical regression analysis. In statistical modeling, regression analysis this was a statistical process for estimating the relationships among variables (Mertler & Vannatta, 2010). The independent variables in this study were age, ethnicity, gender, and quality of life. I determined whether an independent variable affected the dependent variable, self-

efficacy scores. The study included a variety of other techniques for modeling and analyzed the variables to determine the relationships between the independent variables (or predictors) and the evaluation of the dependent variable.

Research Approach

Through the quantitative approach, researchers seek to explain phenomena using numerical data. The approach emphasized the importance of objective measurements and numerical analysis of data collected using questionnaires (Muijs, 2004). The data collection that was used was the demographic form, QOL rating scale, and daily living self-efficacy scale (Maujean, et al., 2014), questionnaire. The results of the study were based on a medium sample size representative population of stroke survivors.

Research Design

A correlation research design was used to investigate a relationship between two or more variables of interest (Porter & Carter 2000). Due to the limited time allotted to complete the research and the limited number of possible participants who cooperated in the study, a cross-sectional was adopted design instead of a longitudinal study. Measured baseline levels of self-efficacy, quality of life, and psychological dysfunction before the stroke was not possible when waiting for the rehabilitation process to progress it took much time. The cross-sectional design helped in the examination of the changes of stroke survivors in the rehabilitation facility that regarded self-efficacy levels (Creswell, 2003). Data from the whole study population were collected at a single point in time and examined all the desired relationships between variables. For the population, the participant's rehabilitation process varied; the duration of the data was accurately

different between the survivors that went through, rehabilitation for a while, and those who were had just began the rehabilitation process (Creswell, 2003).

The data collection was collected from a rehabilitation facility in Arkansas. The data included individual characteristics of the stroke survivors and information regarding the quality of life after stroke. The data collected from this particular research design provided quantifiable evidence on how the constructs were related to each other and thus helped established a more solid theory that accurately predicted the self-efficacy scores in stroke survivors.

Methodology

Population

The target population was stroke survivors who are exhibiting some manifestations of physiological or psychological dysfunction. This study focused on an inpatient stroke population. Arkansas rehabilitation facilities had an accessible population with a directory and assessment of stroke patients, which had an estimated population of 250 stroke survivors. The participant pool was narrowed by looking at the goodness of fit with the inclusion criteria, and willingness for cooperation with stroke survivors and the administrators and nurses at the facility.

Sampling and Sampling Procedures

A total sample of 115 individuals was accessed and willingly participated. The individuals completed the consent form, the demographic form, the quality of life rating scale and the questionnaire during the data collection period. Purposive convenience sampling was appropriate for the current study considering the nature of the participants.

Sampling Frame

The potential participants in the study met the inclusion criteria: (a) the formal diagnosis of a stroke by a medical practitioner, (b) the recovery in a rehabilitation facility as an inpatient, (c) the evaluation of cognitive impairment after the stroke, as diagnosed by a medical practitioner, (d) the ability to comprehend and complete the questionnaires, and (e) the willingness to participate. The aim was to look at the general relationships of the constructs in any stroke survivor.

Procedures for Recruitment, Participation, and Data Collection

There was a sample identified by asking permission from the rehabilitation facilities to gain access to the directory of inpatient stroke survivors. Participants were asked to complete a demographic form the quality of life rating scale and the questionnaire developed for the study. The demographic form included the participant's gender, age, ethnicity questionnaire, a rating of their quality of life, and the questionnaire included the DLSES. The collection of demographic data was essential for the research; once the list was narrowed down. After an inclusion criterion and detailing sample purposes of the research, I arranged to collect the data at a time and date that is convenient for those who agreed to participate.

The informed consent forms were given to participants at the facility. The participants that were involved in the study were given the informed consent form. The form explained the benefits and risks associated with the study and all of the information regarding the requirements of the study. The data were collected from the self-administered questionnaire and administered verbally to the participant to fill out them,

depending on the preference and ability of the participant. The limits of confidentially was explained by the researcher, such as sharing and archiving the gathered information as well as data coding. Any incentives for participation were also explained once the participants had agreed to sign the consent form. The form explained the participants' rights to confidentiality, anonymity, and withdrawal from participation for any reason at any time during the data collection phase (Gallagher, 2015).

Power Analysis

For this study, the statistical analysis included a multiple linear regression with four predictors. The power analysis ranged from large, medium, and small. The power analysis for a multiple regression with four predictors was conducted in G*Power determined a sufficient sample size used an alpha of 0.05, a power of 0.80, and a medium effect size ($f2 = 0.15$; Faul et al., 2013). Based on the assumptions, the desired sample size was 85.

Instrumentation and Operationalization of Constructs

The DLSES was created by Maujean et al. (2014), was used as the instrument for data collection. The apparatus aimed to help researchers increase understanding for managing accomplishments in helping stroke survivors in rehabilitation facilities with self-management, mobility, and personal care tasks.

Permission was sought to use the questionnaire as an instrument in the study. The published reliability and validity values were relevant and employed in several studies. The values have been reported to have a significant correlation with other scales that measure constructs for the daily living self-efficacy scale, such as the Patient

Competency Rating Scale with a correlation of .74 and .54, respectively, suggesting convergent validity (Maujean, 2012). There was the test-retest reliability of .96 obtained after a mean interval of 8.76 days (Maujean, 2012).

This instrument had 17 questions, but only 12 items are used to assess perceived self-efficacy for survivors of stroke by examining the domains of functioning, such as self-management practices, personal care, and mobility-enhancing activities for a questionnaire. The primary focus of the scale was to determine self-efficacy issues in the daily operation of stroke survivors (Maujean et al., 2014). The evaluation of the DLSES score examined different situational circumstances. The items of the scale detected the situational conditions that each stroke survivor encounters such as stress or tiredness. This scale assessed activity domains and multifaceted ways in which the survivors operated. The scale had different aspects of fields in function and ability that provided the opportunity for me to identify an area that had a subdued self-efficacy for stroke survivors.

In this study, the DLSES scale determined the participants' prediction on their age, ethnicity, gender, and their quality of life for the DLSES scores. These scores were evaluated by me in measuring a stroke survivor and their self-efficacy for daily functioning. The instrument used in the study was valid and reliable, from previous studies. Planning reliability and validity was necessary to establish both reliability and validity of the scales using the current sample, alpha coefficients of internal consistency that will be used to ascertain the reliability of the DLSES scores.

In planning to provide evidence for predictive validity, the scope in a correlation on a scale or questionnaire, there was a prediction of scores for the criterion measures. The measurement of level variables predicted from the current analysis that included correlation with measurements made with different instruments the observed correlation was statistically significant to planning for the evidence of construct validity; it explained the degree to which the questionnaires measure what it claimed or measured. In validity and reliability, a developed questionnaire was evaluated to make sure that the collected data was suitable to test the research questions and hypotheses. These evaluations for scales and scaling methods were employed to measure the variables that assess validity and reliability measures.

Data Analysis Plan

Data from the DLSES scores were collated, tabulated, and examined with the IBM Statistical Program used for Social Sciences Statistics (Version 24). After encoding the responses, invalid, and incomplete responses were removed. The data were verified for outliers, and those that would affect the normality of the data was excluded to meet the assumptions of the statistical test that was used.

A Correlational research was employed and approached statistically with a multiple linear regression analysis. In examining the research question, a multiple linear regression was conducted to assess the independent variables (predictors) and the dependent variable (criterion). Multiple linear regression was used to assess the relationships and the prediction of the dependent variable (criterion).

For an arranged dichotomous, for ordinal, and interval/ratio predictors with variables for interval/ratio criterion variables, there were the independent variables that included Independent Variable 1, Independent Variable 2, Independent Variable 3, independent variables, and Independent 4, and the dependent variable.

For the regression equation, there was a main effects model that will be used such as: y = b1*x1 + b2*x2 +b3*x3+…+ c; where Y = estimated dependent variable, c = constant (which included the error term), b = regression coefficients, and x = each independent variable.

The usage of F-test was utilized to measure established independent variables prediction and the dependent variable criterion. The R-squared and the multiple correlations of the coefficient were reported and used to determine how much variance in the dependent variable was explained. The *t*-test utilized the determination of the significance of all the predictors, and the beta coefficients determined the magnitude of prediction of each independent variable. For significant predictors, for every one-unit increase in the predictor; the dependent variable increased or decreased the number of unstandardized beta coefficients.

In the assumptions of multiple regression, the linearity, homoscedasticity, and multicollinearity were evaluated. Linearity was a straight-line relationship that is between predictor variables and the criterion variable. Homoscedasticity was the score distributed through the line for the regression. There was an evaluation of linearity, and homoscedasticity, and the scatter plot measures it. In the absence of multicollinearity in the predictor variables, it was assumed that they are not related, and measured by

utilizing Variance Inflation Factors (VIF). If VIF values were over 10, it is suggested there was the presence of multicollinearity. The instrument used for the measurement of the variables in this study allowed the data to be analyzed. The research questions and the hypotheses were the bases for analyses, and they were presented below and guided the description of the data analysis process.

Research Questions and Hypotheses

RQ1: Did quality of life predict the self-efficacy scores when controlling for all other variables?

$H_0$1: Quality of life did not predict the self-efficacy scores when controlling for all other variables.

H_a1: Quality of life predicted self-efficacy scores when controlling for all other variables.

RQ2: Did age predict the self-efficacy scores when controlling for all other variables?

H_o2: Age did not predict self-efficacy scores when controlling for all other variables.

H_a2: Age predicted self-efficacy scores when controlling for all other variables.

RQ3: Did gender predict self-efficacy scores when controlling for all other variables?

H_o3: Gender did not predict self-efficacy scores when controlling for all other variables.

H_a3: Gender predicted quality of life scores when controlling for all other variables.

RQ4: Did ethnicity predict self-efficacy score when controlling for all other variables?

H_o4: Ethnicity did not predict self-efficacy scores when controlling for all other variables.

H_a4: Ethnicity predicted self-efficacy scores when controlling for all other variables.

Threats to Validity

It was possible for any research study to have external and internal threats to validity. In external validity, there was generalizability representativeness of the sample, setting, and procedures. However, for a correlation study the testing reactivity, interaction effects of selection and variables, specificity of variables, and how they functioned in this study.

The threats of external validity referred to results of the responses or the performances of the participants in an evaluation. The extent of the research's outcome was to determine if the study was explanatory or investigational and can be generalized towards other individual or situations (Campbell & Stanley1966; Isaac & Michael, 1971). In addition to validity, the keys to understanding internal validity are recognized when associated with descriptive studies (correlational, internal validity refers only to the accuracy/quality of the research). Internal validity provides confidence that changes in dependent (DV) variable due to the cause of the independent variable (IV).

When a study has a high degree of internal validity, then it has been concluded that the evidence is substantial in showing a relationship. If a study has low internal validity, then it has been concluded there is little or no proof of causality. There are eight threats to internal validity:

1. History
2. Maturation (passage of time)
3. Testing
4. Instrumentation.
5. Statistical regression
6. Research reactivity
7. Selection biases
8. Attrition (experimental mortality).

The scrutiny of a whole the study's generalizations and implications were to develop a strategy to address the research before was completed.

Ethics Procedure

The IRB application included a document of agreements to access participants or data. Walden University's Research Ethics Committee permission obtained, and IRB approvals needed to be proposed received, and completed before conducting research. There were careful considerations given to the nature of this study and the possible effects on the participants. There was a guarantee that the potential participants would decide, without pressure, to participate in the study. There was a copy of the informed consent form provided to each participant.

The consent form includes the purpose of the research, the procedures to follow, risk, discomforts, benefits that associated with participation, other conditions for participation, possible therapy, and confidentiality of information. The informed consent form also informed the participants that they had the right to withdraw from the study, even after the consent was performed. Participants were also given a contact number if they had questions. There was a secured password-protected on file on a jump-drive that is stored on the computer hard drive that was destroyed after several years.

Summary

The purpose of this chapter was to describe the research design and the methodology of the study. The quantitative descriptive survey used of a correlational design. There was a multiple linear regression statistical analysis used to investigate the possible relationships among four predictors for independent variables: age, ethnicity, gender, and the quality of life. The daily living self-efficacy scores (Maujean et al., 2014) was the dependent variable that was utilized for measurement and evaluation. The conveniently sampled 115 stroke survivors answered self-reporting questionnaires. The participants responded to the self-reporting questionnaires in rehabilitation facilities in Arkansas. Chapter 4 includes (a) the data that were collected, managed, analyzed, and verified; (b) the findings relevant to the research questions and hypotheses; and (c) the theoretical foundation of the research study.

Chapter 4: Results

Introduction

The objective of this study was to determine if four variables had significant prediction capabilities on the dependent variable. The predictor variables were age, ethnicity, gender, and quality of life. There was one dependent variable, the DLSES, which was used to evaluate self-efficacy scores. Chapter 4 is a description and analysis of the data for the pilot study and the primary study. Frequency tables for all variables were utilized to reveal the outcome of statistical analyses used to examine multiple linear regression data. The results were near the end of the chapter, and lastly, the final section of the chapter included the summary and the transition to the next chapter.

This chapter is a description of the results of the research study. After carefully observing the data information gathered from all participants, the procedure to test research questions and hypotheses was achieved. Descriptive statistics were used to describe the variables of the data in this study. They provided straightforward paragraphs about the sample and the measures. Together with minimal graphics analysis, they formed the basis of virtually every quantitative analysis of data. There was an added instrument, used to convey the measure of a variable used in the study. The strategies and the statistical analysis were incorporated into the study as well.

Participant Demographics

The mean age of all participants was 64.23 (*SD* = 12.23) years. The range of female participants was 35 to 91, and the age range for males was 37 to 88. The table below displays the range, minimum, maximum, mean and Std. Deviation of the actual age of stroke survivors. From the table the minimum of age is 35 years, maximum is 91 years, while the mean is 64.23 years and the standard deviation of the age variable is 12.23 and the range is 56 years.

Table 1. *Descriptive Statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
Overall Age	115	35	91	64.23	12.23
Female Age	60	35	91	52.2	.502
Male Age	55	37	88	47.8	.502

Table 2. *Frequency Distribution for Age, Caucasian vs AA, Caucasian vs Asians Caucasian vs. Hispanics Gender, Quality of Life Rate Scale and DLSES scores.*

Variable		*N*/ Frequency	Percent	Valid Percent	Cumulative Percent
***Age**		115	100.00	100.0	100.0
Caucasian Descent		57	49.6	49.6	49.6
African Descent		58	50.4	50.4	100.0
		115			96.5
		111	96.5	96.5	100.0
Asian Descent		4	3.5	3.5	100.0
		115	100.0	100.0	
		108	93.9	93.9	93.9
Hispanic Descent		7	6.,1	6.1	100.0
		115	100.0	100.0	
***Gender**					
Female		60	52. 2	52. 2	52. 2
Male		55	47.8	47.8	100.0
***QOL/Rate scale** 1-5					
1		5	4.3	4.3	4.3
2		11	9.6	9.6	13.9
3		24	20.9.	20.9	35.7
4		20	17.4	17.4	53.00.0
5		54	47.0	47.0	
***DLSES Scores**	260	1	.9	.9	.9
	370	1	.9	.9	1.7
	390	2	1.7	1.7	3.5
	400	3	2.6	2.6	6.1
	410	3	2.6	2.6	8.7
	420	2	1.7	1.7	10.4
	430	4	3.5	3.5	13.9
	440	3	2.6	2.6	16.5
	450	3	2.6	2.6	19.1
	460	4	3.5	3.5	22.6
	470	5	4.3	4.3	27.0
	480	3	2.6	2.6	29.6
	490	7	6.1	6.1	35.7
	500	18	15.7	15.7	51.3
	510	12	10.4	10.4	61.7
	520	5	4.3	4.3	66.1
	530	11	9.6	9.6	75.7
	540	4	3.5	3.5	79.1
	550	19	16.5	16.5	95.7
	560	1	.9	.9	96.5
	580	1	.9	.9	97.4
	600	1	.9	.9	98.3
	610	1	.9	.9	99.1
	620	1	.9	.9	100.0

Cronbach's alpha

Reliability Statistics is displayed for Table 3. This table gives the Cronbach's alpha coefficient for the QOL Rate scale. The score is over .70 for high internal consistency. In this case, $\alpha = .99$, which shows the QOL Rate scale is reliable.

Table 3. *Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.997	.997	3

Table 4. *Item Statistics for QOL Rate Scale*

	Mean	Std. Deviation	N
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	3.91	1.239	115
Are you satisfied with your quality of life?	3.93	1.212	115
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation	3.93	1.212	115

Table 5.S*cale Statistics*

Mean	Variance	Std. Deviation	N of Items
11.77	13.352	3.654	3

The table below displays Descriptive statistic for participant's demographics for the study. Table 6 shows descriptive data for ethnicity. Statistical analyses were performed by utilizing IBM SPSS Statistic 24. The stepwise multiple linear regression was used to create the sum of the composite score across the 12 questions on the Daily Living Self-Efficacy Scale. The total average of each participant was added up, and the score was achieved. The higher the rating indicated, the higher the self-efficacy.

Table 6. *Descriptive Statistics for Participant Demographics*

	N	Minimum	Maximum	Mean	Std. Deviation
Caucasian Descent	115	.00	1.00	49.6	49.6
African Descent	115	.00	1.00	50.4	50217
Asian Descent	115	.00	1.00	.0348	.18403
Hispanic Descent	115	.00	1.00	.0609	.24014

Table 7. *Reliability Statistics for DLSES*

Cronbach's Alpha	N of Items
.405	12

Table 8. *Item Statistics*

	Mean	Std. Deviation	N
Look after my finances (e.g.., paying bills, banking, etc.	.00	.000	115
Attend a social gathering with Friends	36.96	23.063	115
Contact a friend when I feel lonely	52.96	13.375	115
Either do or arrange to have the shopping done	49.22	6.091	115
Take part in new hobbies and new activities	75.22	25.967	115
Do something that helps me feel better when I feel down	91.22	16.657	115
Arrange any necessary repairs around the house	.00	.000	115
Invite a friend to go out with me (e.g., go to a movie go for coffee, etc.)	.00	.000	115
Not allow feelings of discouragement to stop me from doing the things I want to do	99.13	9.325	115
Either do arrange to have house cleaned	.23	1.441	115
Attend an event or go places on my own (e.g., movies, libraries, exhibitions, etc.)	.00	.000	115
Overcome negative thoughts that I may have about myself when I feel down	100.00	.000	115

Reliability Statistics is shown for Table 7 and the DLSES questionnaire items are displayed in Table 8. The score for the Cronbach Alpha is less than 7 for high internal consistency. Therefore, in this case, $\alpha = .405$. It was concluded that the items may provide reduced internal consistency within this sample of participants.

There were 115 participants accessed from six small/medium/large nursing rehabilitation facilities located in Arkansas. For each facility, every participant was asked to sign a consent form before they began to complete the demographic form.

The demographic document required each participant to specify whether he/she had a stroke, their age, ethnicity, gender, and there was a brief, rating of their quality of

life at the end of the form. Shortly after, the DLSES questionnaire was presented to the participants. Demographics for each data collection site were provided in the next series of tables and followed with the descriptive statistics tables as well.

The first facility consisted of 25 participants. The age range of participants at the facility was 35-88. The ethnicity at this facility was Caucasians, African Americans, Hispanics, and Asians. The gender count was (15) females and (10) males; (10) Caucasians (12), African Americans, (1) Hispanic, and (2) Asians.

Table 9. *Facility 1 Demographic Data*

Facility 1 Participants 25 Age	Gender	Ethnicity
35	Male	African American
45	Male	Caucasian
63	Female	African American
72	Male	Asian
74	Female	African American
66	Female	Caucasian
75	Male	Caucasian
56	Female	African American
50	Male	African American
58	Female	Caucasian
46	Female	Asian
85	Female	Hispanics
67	Male	African American
57	Male	African American
51	Male	Caucasian
68	Female	African American
65	Female	African American
52	Female	African American
69	Female	Caucasian
76	Female	Caucasian
70	Male	Caucasian
74	Male	African American
88	Female	
87	Female	
63	Female	

Table 10. *Descriptive Statistics for Facility 1*

	N	Minimum	Maximum	Mean	Std. Deviation
Facility 1	25	1	25	13.00	7.360
QOL/Rate	25	2	5	4.24	1.091
Living Arrangements: Spouse/ Partner/Facility /Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	25	2	5	4.24	1.091
Are you satisfied with your quality of life?	25	2	5	4.24	1.091
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation	25	2	5	4.24	1.091

The next facility contained 25 participants as well. The age range of participants at this facility was 38-84. The ethnicity at the facility was Caucasians, African Americans, Hispanics, and Asians. The gender count was (15) females and (10) males; (6) Caucasians, (16) African Americans, (2) Hispanics, (1) Asian.

Table 11..*Facility Demographic Data*

Facility 2 Participants 25 Age	Gender	Ethnicity
51	Female	Caucasian
62	Male	Caucasian
66	Female	African American
68	Female	African American
64	Female	Caucasian
58	Female	African American
79	Female	African American
81	Female	African American
49	Female	African American
61	Female	African American
63	Female	Caucasian
38	Male	African American
42	Male	African American
48	Male	African American
55	Male	Caucasian
70	Male	Hispanic
67	Male	Hispanic
72	Female	African American
55	Female	Caucasian
84	Male	African American
52	Female	African American
48	Female	African American
56	Female	African American
69	Male	African American
71	Male	Asian

Table 12. *Descriptive Statistics for Facility 2*

	N	Minimum	Maximum	Mean	Std. Deviation
Facility 2	25	1	25	12.96	7.419
QOL/Rate	25	1	5	3.76	1.451
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	25	1	5	3.72	1.487

Facility 3 entailed 10 participants. The age range of participants at this facility was 50-76. The ethnicity at this facility was Caucasians and African Americans, and there were no Hispanic or Asians. The gender count was (5) females and (5) males; (3) Caucasians and (7) African Americans. There were no Hispanics or Asians at this facility.

Table 13. *Facility 3 Demographic Data*

Facility 3 Participants 10 Age	Gender	Ethnicity
50	Male	African American
56	Male	African American
62	Male	African American
65	Male	Caucasian
73	Male	African American
76	Female	African American
59	Female	African American
63	Female	Caucasian
51	Female	Caucasian
54	Female	African American

Table14. *Descriptive Statistics for Facility 3*

	N	Minimum	*Maximum*	Mean	Std. Deviation
Facility 3	10	1	10	5.50	3.028
QOL/Rate	10	3	5	4.30	.823
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	10	3	5	4.30	.823
Are you satisfied with your quality of life?	10	3	5	4.30	.823
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation	10	3	5	4.30	.823
Valid N (listwise)	10				

The fourth facility had 15 participants. The age range of participants at the facility was 53-91. The ethnicity at this facility was Caucasians and African Americans, and there were no Hispanic or Asians. The gender count was (4) females and (11) males with (6) Caucasians and (9) African Americans.

Table 15. *Facility 4 Demographic Data*

Facility 4		
Participants	15	
Age	Gender	Ethnicity
53	Female	African American
57	Male	African American
83	Female	African American
76	Male	Caucasian
67	Male	Caucasian
88	Female	African American
71	Male	African American
78	Male	African American
91	Female	African American
74	Male	Caucasian
83	Male	Caucasian
57	Male	African American
75	Male	African American
77	Male	Caucasian

Table16. *Descriptive Statistics for Facility 4*

	N	Minimum	Maximum	Mean	Std. Deviation
QOL/Rating	15	2	5	3.80	1.265
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	15	2	5	3.80	1.265

Are you satisfied with your	15	2	5	3.80	1.265
quality of life?	15	2	5	3.80	1.265
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation					

The fifth facility comprised of 28 participants. The age range of participants at this facility was 39-89. The ethnicity at this facility was Caucasians, African Americans, and Hispanics. The gender count was (14) females and (14) males); (13) Caucasians, (12) African Americans, (2) Hispanics, and (1) Asian. The rating scale for the quality of life was three 1s, three 2s, nine 3s seven 4s, and six 5s.

Table 17. *Facility 5 Demographic Data*

Facility 5		
Participants 28		
Age	Gender	Ethnicity

60	Male	African American
59	Female	African American
81	Female	African American
79	Male	Caucasian
55	Male	Hispanics
68	Female	Caucasian
65	Female	Caucasian
63	Male	African American
44	Female	African American
52	Male	African American
39	Male	Caucasian
57	Female	Caucasian
78	Female	Asian
84	Male	African American
63	Female	Caucasian
55	Male	Caucasian
56	Female	Hispanic
77	Male	Caucasian
67	Female	African American
61	Female	Caucasian
59	Male	African American
54	Female	African American
89	Male	Caucasian
87	Male	African American
80	Male	Caucasian
62	Female	Caucasian
55	Female	Caucasian
53	Male	African American

Table 18. *Descriptive Statistics for Facility 5*

	N	Minimum	Maximum	Mean	Std. Deviation
Facility 5	28	1	28	14.50	8.226
QOL/Rate	28	1	5	3.54	1.170
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	28	1	5	3.50	1.171
Are you satisfied with your quality of life?	28	1	5	3.50	1.171
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation	28	1	5	3.50	1.171
Valid N (listwise)	28				

Lastly, for the last facility, there were 12 participants. The age range of participants at this facility was 53-76. The ethnicity at this facility was Caucasians, African Americans, and Hispanics Asians. There were (7) females and (5) males; (8) Caucasians, (2) African Americans, and (2) Hispanics. There were no Asians at the facility.

Table 19. *Facility 6 Demographic Data*

Facility 6 Participants 12		
Age	Gender	Ethnicity
67	Female	Caucasian
70	Male	Hispanic
53	Male	African American
68	Female	Caucasian
53	Female	Caucasian
56	Male	Caucasian
54	Male	Caucasian
76	Male	Hispanic
72	Male	Caucasian
54	Female	Caucasian
64	Female	Caucasian
58	Female	African American

Table 20. *Descriptive Statistics for Facility 6*

Descriptive Statistics					
	N	*Minimum*	Maximum	Mean	Std. Deviation
Facility 6	12	1	12	6.50	3.606
QOL/Rating	12	2	5	4.33	1.073
Living Arrangements: Spouse/ Partner/Facility/Caretaker; If your selection was Facility Please rate 1-5 with 5 being most positive)	12	2	5	4.33	1.073

Are you satisfied with your quality of life?	12	2	5	4.33	1.073
How do you consider you sense of safety, well-being participation in community life organization? Living assisted living facility Rehabilitation	12	2	5	4.33	1.073

Statistical Assumptions

The statistical assumptions that were appropriate for multiple linear regression were assessed. Foremost, statistical tests depend on specific assumptions regarding variables used in the analysis (Osborne & Waters, 2002). Multiple regression analyzes the relationship between an outcome measure for several predictors or independent variables (Jaccard et al., 2006). To meet the assumptions multiple linear requires several conditions. These assumptions related directly to the validity of the research findings. Multiple linear regression has four statistical assumptions:

1. Only relevant variables are required. To meet this assumption studies, need at least two independent variables, which should be nominal, ordinal, and interval-ratio. A sample size of a regression analysis requires at least 20 cases per independent variable in the study. Variables are modeled to predict variables without regard to their relevancy.
2. A relationship must be linear. The assumption of linearity describes the function of a dependent variable as linear of the predictor or independent variables (Darlington, 1968). Multiple regression precisely estimates the relationship between dependent and independent variables when the link is

linear (Osborne & Waters, 2002). The relationship must be direct between the outcome variable and the independent variables. Scatterplots show that there is a linear connection. Multiple linear regression analysis involves errors between observed and predicted values (i.e., the residuals of the regression and should normally be distributed. The assumption is often checked by looking at a histogram or a Q-Q-Plot.

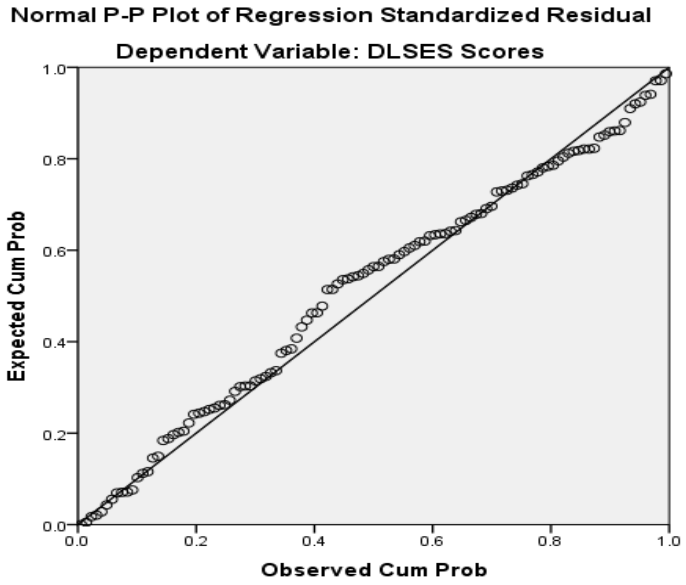

Figure 1. Normally distributed residuals.

3. All variables are normally distributed. Multiple linear regression assumes that there is no multicollinearity in the data. Multicollinearity occurs when independent variables correlation is high. This assumption requires that the multiple linear regression have a normal distribution. (Darlington, 1968; Osborne & Waters, 2002). The assumption is based on the form of a

normal distribution and gives the researcher knowledge of the values to assume (Keith, 2006).

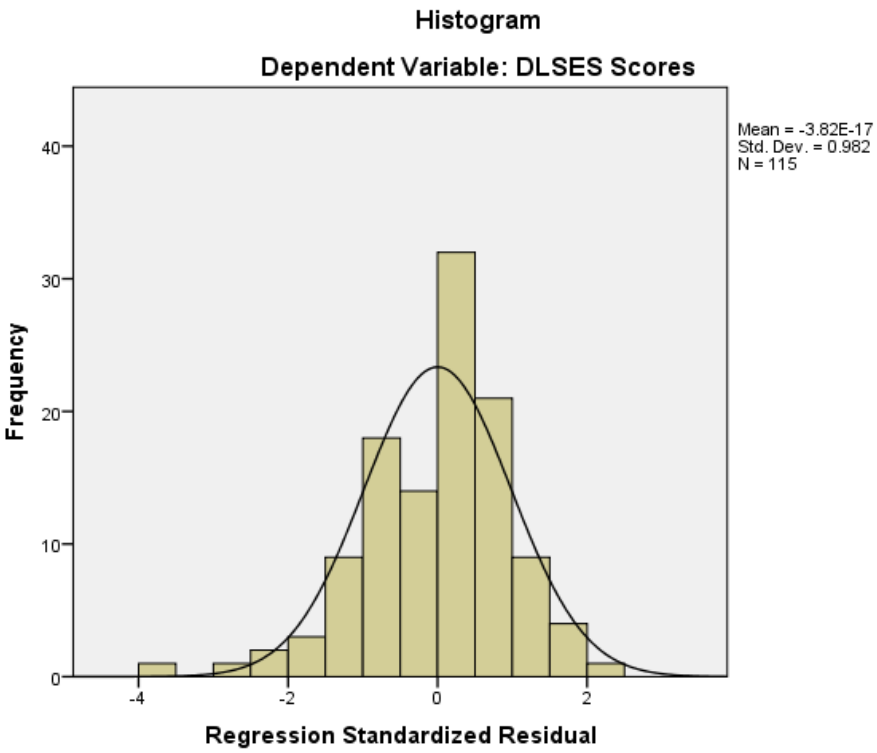

Figure 2. Histogram of the residual figure.

4. Homoscedasticity is assumed. The last assumption of multiple linear regression is homoscedasticity. A scatterplot of residuals versus predicted values is a way to inspect homoscedasticity. There should not be a clear pattern in the distribution; if there is a cone-shaped pattern, the data is heteroscedastic and would violate this assumption. Figures 3 and 4 were used to assess the homoscedasticity of the data.

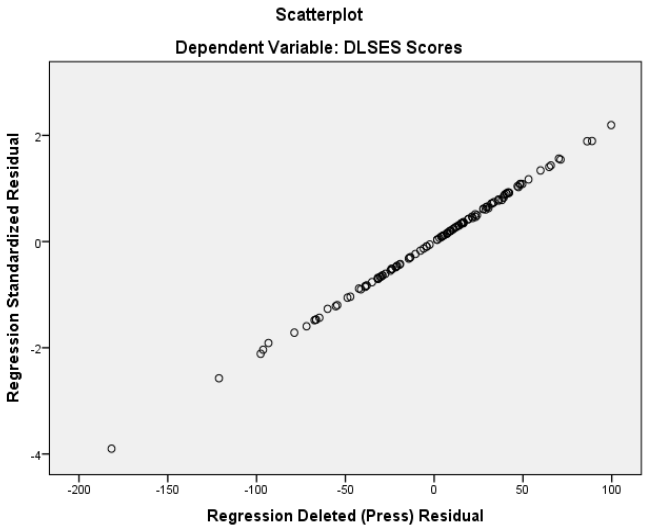

Figure 3 Residual scatter plot.

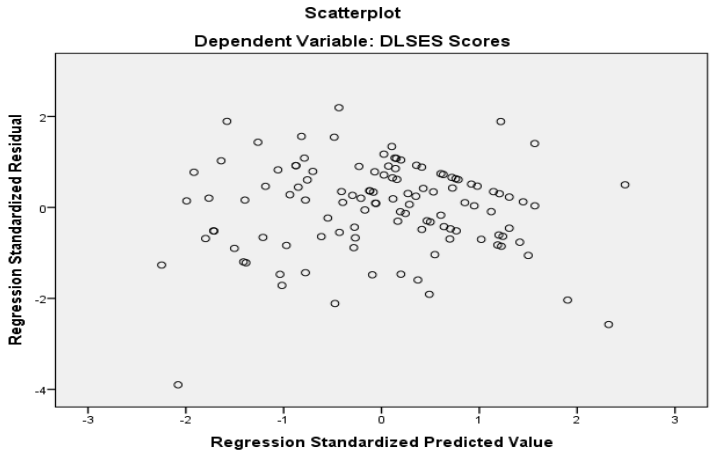

Figure 4. Assumption of homoscedasticity.

As a result, when a violation occurs for assumptions in multiple linear regression, the precision and inferences of the analysis are changed (Antoniadis & Dietz, 2011). However, the IBM statistical software package allows a researcher to test each assumption. By checking the assumptions, there are significant benefits for the

researcher. It helps reduce error and increases reliability and the validity of inferences. Considering all the problems that surround assumptions, multiple regression should be improved with a better understanding for researchers as they form theories of this unique analysis (Jaccard et al., 2006).

Research Questions and Hypothesis Testing

For the study, four research questions addressed the stroke survivor's social, psychological, and physical aspects of their daily life. The first question entailed the medically diagnosed stroke survivor's quality of life prediction for self- efficacy scores, where this independent variable was a predictor that was controlled by all other variables in the study. Research Question 2 aimed at the stroke survivor's age when controlled for all other variables. Question 3 sought the stroke survivor's gender and controlled by all other variables. Question 4 targeted stroke survivor's ethnicity race and culture while this variable was controlled by all other variables as well. The data collection was completed, and the procedure to test research questions and hypotheses was performed based on the on four research questions and hypothesis.

RQ1: Did quality of life predict the self-efficacy scores when controlling for all other variables?

$H_0$1: Quality of life did not predict the self-efficacy scores when controlling for all other variables.

H_a1: Quality of life predicted self-efficacy scores when controlling for all other variables.

RQ2: Did age predict the self-efficacy scores when controlling for all other variables?

H_o2: Age did not predict self-efficacy scores when controlling for all other variables.

H_a2: Age predicted self-efficacy scores when controlling for all other variables.

RQ3: Did gender predict self-efficacy scores when controlling for all other variables?

H_o3: Gender did not predict self-efficacy scores when controlling for all other variables.

H_a3: Gender predicted quality of life scores when controlling for all other variables.

RQ4: Did ethnicity predict self-efficacy score when controlling for all other variables?

H_o4: Ethnicity did not predict self-efficacy scores when controlling for all other variables.

H_a4: Ethnicity predicted self-efficacy scores when controlling for all other variables.

Results

In evaluating the research questions and hypotheses, a stepwise multiple linear regression was conducted to assess whether the quality of life, age, gender, and ethnicity significantly predicts DLSES scores. Levels of F to enter and F to remove were set to correspond to levels of .005 and .01, respectively, to adjust for error rates associated with

multiple significance tests. The default values for stepwise are .05 and .10. If Bonferroni was the basis for the adjustment, then, based on four predictors, the values would be .0125 and .025. This is because the default values have been divided by four. This was based on the four predictors (Haynes, 2013).

The stepwise method was selected; SPSS included only significant predictors in the regression model: although there were four chosen predictors, those that didn't contribute uniquely to DLSES scores did not enter the regression equation. However, the entire regression analysis was done a second time, due to the variable ethnicity being entered wrong for the first analysis. This analysis was conducted with a backward stepwise regression, so all the dummy coded variables could be entered into the model on the same step for ethnicity. Upon the second analysis all requested variables were entered for the analysis.

Tests were performed to see if the data met the assumption of collinearity. The test indicated that multicollinearity was not a concern. However, collinearity statistics was performed for independent variables. There were five models shown for Collinearity Statistics. The first model for the tests for collinearity statistics indicated multicollinearity, Tolerance = .843, VIF =1.187; age, Tolerance =.856, VIF=1.169; African descent, Tolerance =.919, VIF=1.1089; Asian descent, Tolerance =.889 VIF=1.125; Hispanic descent, Tolerance =.927, VIF=1.079; gender, and Tolerance =.793, VIF= 1.260; QOL/Rate. The second model specified Tolerance =.844, VIF=1.185 Age, Tolerance =.857, VIF=1.166; African descent, Tolerance =. 920, VIF= 1.079; Asian descent, Tolerance = .916, VIF= 1.092; Hispanic descent, and Tolerance =.823, VIF=

1.22 QOL/Rate. The third model denoted Tolerance = .846, VIF = 1.185; age, Tolerance = .931, VIF = 1.075; African descent, Tolerance = .929 VIF = 1.1077; Asian descent, Tolerance = .831, VIF = 1.1204; QOL/Rate. For model four it showed Tolerance = .847, VIF = 1.181; age, Tolerance = .952, VIF = 1.050; Asian descent, Tolerance = .831 VIF = 1.204; Tolerance = .854, VIF = 1.171; QOL/Rate. Furthermore, model five concluded Tolerance = .864, VIF = 1.157; age, and Tolerance = .864, VIF = 1.157; QOL/Rate for muticollinearity tolerance for the test conducted for Collinearity Statistics.

The backwards stepwise regression process which can be referred to the backward elimination (or backward deletion) is a reverse process. All the independent variables are entered into the equation first and each one is deleted one at a time if they do not contribute to the regression equation.

Additionally, the stepwise selection is considered a variation of the previous two methods. Stepwise selection involves analysis at each step to determine the contribution of the predictor variable entered previously in the equation. In this way it is possible to understand the contribution of the previous variables now that another variable has been added. Variables can be retained or deleted based on their statistical contribution iterated multiple regression several times, each time removing the weakest correlated variables. All were variable were entered in the model which were: Age, African descent, Asian descent and Hispanic descent, Gender, and QOL rating scale were included as significant predictors.

Table 23. Summarizes the regression coefficients and the correlations between the predictor variable that supported the distribution the best. This table presents the IV, the

unstandardized beta (B), the standard error for the unstandardized beta (SE B), the standardized beta (β), the *t*-test statistic (t), probability value (p) and Confidence Interval.

Table 21. *Predicting Variable and Coefficient for DLSES*

1 Model	*B*	*SE B*	β	*t*	*p*	*95%C1*	*Interval for B*
Constant	665.192	28.056		23.709	.001	609.580	720.804
Age	-2.896	.364	-.659	-7.964	.001	-3.617	-2.175
African Descent	-8.258	8.786	-.077	-.940	.349	-25.672	9.157
Asian Descent	27.388	23.136	.094	1.184	.239	-18.470	73.247
Hispanic Descent	-5.065	18.024	-.023	-.281	.779	-40.790	30.661
Gender	-1.643	8.448	-.015	-.194	.846	-18.389	15.104
QOL	6.286	3.761	.142	1.671	.0.98	-1.170	13.741

Note. CI = confidence interval, $p < .001$

A backward stepwise multiple linear regression was conducted to evaluate whether age, ethnicity, gender, and quality of life predicted DLSES scores. It appears that the p-value is .098. While this is above the normal significant cutoff of $p < .05$, since backward stepwise is considered an exploratory procedure, SPSS defaults to using $p > .10$ for removal of variables, hence that is why the variable is shown as significant in the model even though $p = .098$.

This analysis completed 5 iterations of the model. The analysis found a significant model, $F(2, 112) = 31.73$, $p < .001$, which accounted for 36.2% of the variance in the data (adjusted R^2 .350). The model identified age and QOL/Rate are two significant predictors of DLSES Scores , However. the backward stepwise is considered an exploratory procedure, SPSS defaults to using $p > .10$ for removal of variables, hence that is why the variable is shown as significant in the model even though $p = .098$.

The final predictive model was:

DLSES Scores = 655.192 + -2.896*(age) + (6.286 *QOL/Rate)

Summary

In this chapter, the findings of the research study were presented for the study. The research findings and data analyses described the methodical and careful application of the research methods. The results of the analysis were applied to address the research questions and hypotheses. The chapter also revealed a rating scale and the results of a questionnaire regarding survivors of stroke in sufficient detail. There was two analysis conducted the stepwise and a backward multiple linear regression. The first analysis was performed to evaluate whether the quality of life, age, gender, and ethnicity predict DLSES scores. The second analysis was second analysis that was reran due to the variable ethnicity being entered wrong for the first analysis. This analysis was directed with a backward stepwise regression, so all the dummy coded variables could be entered into the model on the same step for ethnicity. Upon the second analysis all requested variables were entered for the analysis. The methods of the stepwise and backward multiple linear regressions reported findings of SPSS and included the significant predictors in their regression model. The goal was to find a set of independent variables which significantly influence the dependent variable. The findings indicated age and QOL/Rate were statistically significant predictors of DLSES scores.

Chapter 5 delivers the inquiry of the research study findings in Chapter 4. Chapter 5 includes the positive social change, implications for results, limitations of the study, and future recommendations for continual research in this field.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative, descriptive, and correlational research study was to determine the prediction of scores so that highly rated and accurate predictions could be made. The stronger the relationship between variables, the more accurate the prediction was among the relationship of variables, and whether they related to stroke survivors. As a result, statistical methods were measured to test the existence and strength of relationships through the DLSES.

The data were analyzed using a backward stepwise linear regression analysis. All statistical analyses were performed using SPSS. Participants were 115 diagnosed stroke survivors who volunteered to participate in the current study. The researcher was responsible for the informed consent and questionnaire instruments that were accessible at the facility with the intent to ensure confidentiality. On behalf of gender there were female and men that consisted of several ethnicities. Their quality of life was measured by a brief rating scale. The results of the data analysis were presented in Chapter 4. The analysis was performed to evaluate whether the quality of life, age, gender, and ethnicity

predict DLSES scores. This analysis was directed with a backward stepwise regression, so all the dummy coded variables could be entered into the model on the same step for ethnicity. The methods of backward multiple linear regression was reported in the findings of Chapter 4 and identified the significant predictors in their regression model. The goal was to find a set of independent variables which significantly influence

the dependent variable. The findings indicated age and QOL/Rate were statistically significant predictors of DLSES scores.

Previous researchers have focused extensively on stroke survivors' physical variables such as anxiety, depression, cognition, psychological effects, self-care, self-efficacy, rehabilitation, and recovery for both male and female stroke survivors. However, the current study is the first to examine the relationship between prediction scores for age, ethnicity, gender, and the quality of life through a questionnaire and a QOL rating scale using medically diagnosed stroke survivors in the United States. Previous researchers have examined these variables with other medical conditions such as cardiovascular disease, heart attacks, cancer, HIV, AIDS, and diabetes.

Interpretation of the Findings

There are many medical clinicians, researchers, and other professionals associated with the fields of counseling, rehabilitation, and psychology regarding stroke and the many issues of the illness. This current study was based on the framework of the social cognitive theory of perceived self-efficacy (Bandura, 1977). Bandura's (1977) social cognitive theory contrasted the theories of human functioning that overemphasize the role of how environmental factors that were shown in the development of human behavior and learning. The findings supported and extended knowledge for the importance of how an individual's ability and environment produced changes in behavior. Stroke survivors confirmed their age. There were many different age groups were in this current study as highlighted in the descriptive statistics of Chapter 4. The factor of age contributed to the

research study due to the wide variety of age groups. Moreover, it was verified that age was a significant predictor among stroke survivors.

In this existing study, it has been found that there are mixed findings in the literature concerning the connection between age and individual welfare of a person. Age was defined as the number of years a human has been living or been in existence. Globally, stroke is prone to any individual. It has been investigated that younger people have had strokes as well as older people because they were obese, had high blood pressure, and diabetes. It has been suggested that living a healthier lifestyle, doing more physical activity, and maintaining a proper diet can help prevent a stroke.

Three-quarters of all strokes occur in people over the age of 65 or older. In this present study, the youngest stroke survivor was 35 years of age, and the oldest survivor was 91 years of age. It was found in the peer-reviewed literature and earlier studies that young people are happier than older ones. In more recent studies, it revealed no age effect, while many other studies have indicated happiness increased with age (Jones et al., 2009). Individual health comprised of many essential components, which emotional attributes and (unwary beliefs of happiness and misery generally attributed to recent experiences) and life satisfaction, which referred to intentional global judgment to one's life.

This study investigated other variables in the model, specifically, ethnicity, gender, and quality of life's rating scale on their predictive value of DLSES scores. Regarding ethnicity, descriptive statistics identified that African Americans had the most stroke occurrence than any other ethnicity examined in this study. The different ethnicities

investigated in this study were Caucasian, Asian, and Hispanic. Caucasians were ranked second then Hispanic and Asians ranked last with lowest and the smallest number of participants. Ethnicity was not shown to be a significant predictor in the current study.

Previous researchers have shown insignificant connections between ethnicity and stroke risks. According to Mullen and Kelloway (2009), ethnicity created both psychological and social advantages. However, this does not mean that ethnicity increased essential to the meaning of the quality of life. In a meta-analysis of 30 previous studies, it emerged that ethnicity accounts for around 1% of the variance in the post-stroke experience. Lambert (2008) suggested that ethnicity improved in cognitive benefits of heath following stroke by multiplying feelings of efficacy, control, self-care, and security. Ethnicity was classified as a population of an individual's organization based on his or her assumed common culture and origin who had survived a stroke.

In the current study, gender was not a significant predictor of self-efficacy scores when controlling for all other variables in the study. Descriptive statistics identified there were more females than males that participated in this current study. The females in this study had more strokes than the males and were older. However, younger males that suffered from the fatal condition of a stroke and survived. The females had older female participants that had a stroke and survived.

Past researchers explored the connection between gender and their health have shown that there are no significant gender differences with stroke. Researchers have revealed that women, on average, report higher cases of stroke than men (Pare et al., 2011). Based on these findings, it is unexpected that women record greater degrees of

negative affectivity, for example, depression is more common in women than in men. Although gender has not always been found connected to the wellbeing of stroke patients, the amount of variance accounted to gender is comparatively small. Julliard (2008) found that gender contributed to less than 2% of the variance.

The impact of gender and stroke knowledge is poorly understood. The results of stroke studies often point out gender differences. Men and women have different cardiovascular diseases risk factors. Men and women had a different response to medical treatment, therapeutic interventions, stroke, disability, and care. Data have also shown women to be significantly older than men when a stroke occurs, and more likely to suffer from a cardioembolic stroke and have atrial fibrillation as a risk factor.

Stroke onset also differs among men and women. An acute stroke in women usually follows with a coma, paralysis, aphasia, swallowing difficulties, and urinary incontinence. For women, the literature revealed that there are a more significant disability and handicap after stroke than men. It has been noted there is the difference as to where patients are discharged after a hospital stay. Women are more often released to a continuing facility, whereas men often return home. These differences may indicate social differences. Female gender is associated with better knowledge of stroke warning signs, but a gender-specific approach was identified that African American, and Hispanic women, young women, and participants as were at risk for having poor knowledge (Adamson & Beswick, 2004). Future research is needed for targeted stroke education to increase stroke awareness in these groups.

Quality of life was a significant predictor in this study and was given a rating scale to determine the rating of how survivors of stroke rate their quality of life after stroke. it appears the p-value is .098. While this is above the normal significant cutoff of $p < .05$, since backward stepwise is considered an exploratory procedure, SPSS defaults to using $p > .10$ for removal of variables, hence that is why the variable is shown as significant in the model even though $p = .098$.Previous researchers have evaluated quality of life by using different scales and questionnaires or some other way to study stroke survivors. For the current study, the discipline, self-efficacy (Bandura, 1977) was used as the central concept within the social cognitive theory and was the degree to which participants believed that they successfully executed a behavior. Their self-efficacy was altered through their performances, accomplishments, vicarious experiences, verbal persuasion, and physiological state.

In self-efficacy, the participants' beliefs about themselves gave them the right to perform a specific behavior. They had the ability in their current setting to change, and their knowledge of mastery was a useful accomplishment, demonstration, and encouragement (Bandura, 1977). The intent of enriching confidence in self-efficacy has been and was a strengthening belief though attained performance accomplishment, vicarious learning, verbal persuasion, reinforcement that reduced the negative feelings from the participants. Some social-cognitive approaches received mixed results for motivation and cognition action applications. Self-efficacy was targeted with decision-making strategies that were accumulated by significant support (Mitchell et al., 1990).

This current study relied only on survivors of stroke and the attributes that revolved around them such their age, ethnicity, their gender, and their quality of life and how they rated the quality of their life. Literature in the past has grouped stroke and non-stroke groups to conduct their studies with the dependent variable (DLSES scores). This study was orchestrated for the population of a stroke survivor and the predictors of the DV scores of survivors of stroke in Arkansas. Age and QOL/Rate were the two significant predictors of DLSES scores.

Limitations of the Study

For this existing study, there were several limitations. The small pool of participants made it difficult to ensure that it was a representative sample and this sample issue limited generalizability. The participants were conveniently sampled. The purposive convenience sampling would have been appropriate for the current study considering the nature of the participants. It would have taken more time and resources to conduct a randomized selection because there would have been a large uncertainty that the selected participants would have agreed to cooperate, given the sensitive nature of their condition.

Another limitation was the method of recruitment and the attraction of the ethical and socioeconomically diverse sample of participants with other illness due to the fact of the physical and psychological inconvenience that stroke causes. This limitation was necessary, considering the movability status and the living arrangements of participants. For this study, a correlational design using a statistical regression analysis was appropriate despite its limitations because this study intended to determine the prediction outcome relationship that existed between the four variables that predicted self-efficacy

scores among stroke survivors. The whole purpose of utilizing a correlation in research was to figure out which variables were connected. This correlational study determined that there were two significant predictors. While this study was being conducted, it was vital to remember that correlation does not imply causation, and there is no way to determine or prove causation from a correlational study.

It is likely for any research study to have external and internal threats to validity. Internal validity refers only to the accuracy/quality of the research findings. This current study attempted to maintain had a high degree of internal validity and future research could replicate this study to verify the findings. As outlined in the scientific method, any significant results must be more than a one-time finding and must be fundamentally repeatable (Goodwin, 2011). The diligence of a researcher takes their measurements many times, to minimize the chances of malfunction to maintain the status of validity and reliability.

Recommendations

It is recommended that future researchers explore and widen the sample for survivors of stroke because it has been reported more than once that some infants are born and have had strokes and survived because of appropriate procedures were performed. There are many survivors that have suffered a stroke at a very old age.

Another suggestion is to enhance the knowledge of the quality of life for a stroke survivor to be knowledgeable about their health and their social care. Further research is needed to examine the experiences of life after stroke among stroke survivors globally. This type of research would require both qualitative and qualitative studies that would

involve questionnaires, surveys, and interviewers to support assured discussion of personal experiences.

Implications

The impact of stroke survivors was particularly relevant to the implications of this study. The influence of positive social change for an individual family for survivors of stroke is essential throughout the poststroke recovery process. The caregivers can be a family member, friends, neighbors, and healthcare professionals. In caring for stroke survivors, there are high levels of emotional, mental, and physical stress that occur for both the stroke survivor and the caregiver. In addition to distress, disruption of employment and family life makes caring for the survivor very challenging. The family that cares for survivors can promote positive social change for the survivor's recovery outcomes; however, the survivor needs to able care for themselves as well. For a stroke, an individual's health status and related health behaviors are determined by influences at multiple levels: personal, organizational/institutional, environmental, and policy settings.

There is accumulating evidence to suggest that positive social change is offered through support for many long-term consequences for a person's physiological and psychological well-being. Positive social change support has been defined in several ways. Shumaker and Brownell (1984) viewed the concept as the exchange of resources that the provider or recipient perceives to enhance the recipient's well-being. However, this definition neglects the different types of social support that may be provided. Wills and Shinar (2000) highlighted the various dimensions of positive social change social support as emotional support (listening, caring, acceptance), instrumental care (practical

help), informational care (providing knowledge to help solve problems), companionship (socializing, belonging), and validation (feedback, social and comparison).

Positive social change support could affect the recovery of functional skills in stroke survivors. However, such studies are scarce as measuring the specific effects that positive social change support can offer different outcomes after a stroke in a setting. As a result, health and the quality of life rely on many community systems and well-functioning health and medical care systems. Changes within existing systems, such as improving school health programs and societal policies can effectively improve the health of many in communities. For a community to enhance their health prestige, the position of their professionals must often change their aspects of the physical, social, organizational, and political environments to eliminate or reduce factors that contribute to health issues to introduce new attributes that promote better health for their patients.

A quantitative, descriptive correlational study using a statistical regression analysis was conducted to predict four independent variables age, ethnicity, gender, and quality of life and its rating scale. The theoretical framework of this study was based on the social cognitive theory of perceived self-efficacy (Bandura, 1977). The implications were used to investigate phenomena that influenced health behaviors, their provisions, and identification of the scope of published studies of stroke. Their relevance is to develop the delivery of knowledge for people who have had strokes in the past and pave the road for advancement for present outcomes in regards for recommendations for future work.

The potential positive social changes were brought about by medical rehabilitation services that were important for highlighting implications of research for practice. Professional medical staff must be able to deliver relevant and timely information that is suitable to inform the survivor of their status and diagnosis. Staff awareness must enable survivors and the caretakers/nurses to access day centers that assist, schemes, vocational rehabilitation, respite, and other sources of social support.

Social cognitive theory influenced this study. It is one of the most frequently used and robust health behavior theories. This theory described a dynamic, ongoing process in which personal factors for environmental factors and human behavior evolved from research on social learning theory, which asserted that people learn not only from their own experiences, but also by observing the actions of others and the benefits of those actions. However, social cognitive theory has been used successfully as the underlying theory for this study.

Conclusion

Globally, the number of medically diagnosed stroke survivors multiplies every year. This medical condition not only affects a person's social status, but also causes great disturbing psychological suffering and physical impairment. Concisely, a stroke affects the lives of individuals who have been temporarily or permanently interrupted. Recovering from the social disturbance of a stroke not only depends on the strength of the survivor, but also on the individuals that know the stroke survivor. Friends and family react to the different changes that the survivor suffers. This illness plays a significant part in the social and emotional recovery, which is essential to the survivor. Helping a stroke

survivor regain their independence back to complete their tasks and responsibilities gives the survivor of stroke a sense of purpose within his or her family, and the community, to rebuild their social relationships and a feeling of belonging.

The recovering period is essential to the survivor as well and sharing these therapeutic experiences gives the individual necessary social support that they need. Social relationships help the survivor through the process of therapy. The caregiver, family, and friends have a critical role while assisting the survivor in the recovering stage. The stroke survivor needs to be informed that they are accepted for who they are and not as an interesting curiosity because of their stroke.

Professionals are recommended to help patients develop healthy coping skills such as reappraisal of control and ways to enjoy life to improve quality of life after stroke. This study revealed the prediction of two variables. An outcome variable associated with stroke survivors was assessed through a stepwise multiple linear regression analysis of DLSES scores. There were two significant predictors included in the regression model. The independent variables that were statistically significant were age and the quality of life rating scale. The goal was to find a set of independent variables which significantly predict the dependent variable. The findings indicated age and QOL/Rate were statistically significant predictors of DLSES scores.

This research study determined the evidence of self-efficacy scores. These findings helped to decipher research into clinical practice for professors and clinicians in this area of study. The information presented from articles in the literature review explored studies and gave background context. It is important to understand the effects

and the impacts associated with stroke. In the course of this study, there were other gaps in the literature for strokes which have not been discovered or explored yet. Continued research in strokes is needed because it may provide health care providers in cardiovascular health, heart disease, and stroke prevention with enhanced knowledge of the psychological effects for treatment for medically diagnosed stroke survivors. It has been noted that by examining the possible long-term issues of stroke treatments and the effectiveness of psychosocial interventions, during difficult recovery, can lead to better healthcare outcomes for medically diagnosed stroke survivors.

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Appendix A: Participant Letter

Dear Sir, / Madam

I am a PhD student from Walden University, and I am currently conducting a research project investigating The Prediction and Relationship between Age, Ethnicity, Gender and Quality of Life Using Self-Efficacy Scores, among Stroke Survivors. Although there has been
considerable research into the physical aspects of stroke, very little attention has been paid to date to the influence of people's beliefs in their capacity to carry out everyday activities. This capacity is known as self-efficacy in daily living. The project aims to examine the relative contribution of individuals' self-efficacy and their physical impairment in determining quality of life and emotional adjustment following stroke.

To do this investigation participants are needed, who have experienced a stroke. Each participant is invited to complete the questionnaire based on their personal experience and rate their own level of confidence in performing each of the activities and behaviors outlined in the
questionnaire.

Your contribution to this project will help further the research into this area. All that is required is that you complete the questionnaire and consent form and, it would be greatly appreciated. Thanking you for your consideration

Yours, sincerely

_____
Sabrina Thornton

Appendix B: Consent Form

Appendix B

Each participant should keep a copy of this consent form for his or her personal records.

Consent to Participate in a Research Study Date _____

Researcher: Sabrina Thornton

Title of Study: The Prediction and Relationship between Age, Ethnicity, Gender and Quality of Life Using Self-Efficacy Scores, among Stroke Survivors

Please read this document carefully. Your signature is required for participation. You must be 18 years of age to give your consent to participate in the research.

- You've been asked to participate in a research study, to participant in this study (a) must have had a stroke; (b) recovering in a rehabilitation facility as an inpatient; (c) the assessment of a mental impairment after the stroke and must be detected by a medical doctor; (d) the ability to understand and complete the forms; and (e) the readiness to participate.
- The information collected will be private and will not be disclosed to third parties without your consent. This study will not involve any risk to the participant's well-being or cause any type of harm.
- The participant will be given a participant number. This number will be stored with the information that you will complete; the information that you will provide, will be the demographic form that (will include information about your background such as: age; race, gender and if you have had a stroke).
- You will also be asked to complete two questionnaires. The questionnaires will include a rating scale and the Daily Living Self-Efficacy scores, among stroke survivors. The answers will range from (1 to 5, and 0-100). The participant you will select the number that correctly gives your response. Some sample questions are;
    - Are you satisfied with the quality of life?
    - Do you attend a social gathering with friends?
- The forms will be stored by Electronic Media on a jump-drive on a computer hard drive. Your input for this project is completely up to you. You are free to accept or turn down the interest of this study. There is no penalty for not taking part of this research. You are free to withdraw your participation at any time without penalty.
- This research study will take 30 minutes. This study will benefit and understand awareness and wellbeing to serve the interests of individuals who are stroke survivors and the larger community therefore, there will be no compensation provided. The aim of this research is to increase understanding in managing skills for stroke survivors within rehabilitation facilities with self-management, mobility, and personal care tasks.

- If you have any concerns about the ethical conduct of the project, you can contact Sabrina Thornton, for general research related questions, by phone (870-270-9990) or email Sabrina.thornton@waldenu.eduand the Research Participant Advocate (USA number 001-612-312-1210 or email address IRB@waldenu.edu).

The approval number for this study is 01-05-18-0074021 and it expires on January 4th, 2019.

By signing, I confirm that I have read and understood the information outlined above and I agree to participate in this research study.

Name

Address/email

Phone No.

Signature

2018.01.05 15:05:18 -06'00'

Appendix C: Demographic Information Form

Please Check the appropriate item as it applies to you

Have you had a stroke? ___ Yes NO___

Gender: ____ Female Male____

Age: What is your age?

Ethnicity origin (or Race): Please specify your ethnicity.
White__
Hispanic or Latino__
Black or African American___
Native American or American Indian___
Asian / Pacific Islander___

Living Arrangements: ____ Spouse / ___ partner ____Facility ____ Caretaker ____

If your selection was Facility Please rate 1-5 with 5 being most positive)

Are you satisfied with the quality of life?

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5

How do you consider your sense of safety, well-being, participation in community life organization? (Living in assisted living facility / Rehabilitation

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5

Appendix: D

Daily Living Self-Efficacy Scale (DLSES) - 12 Items

Items

Activities of daily living domain

Look after finances (e.g., paying bills, banking, etc.)

Arrange to have the shopping done

Arrange any necessary repairs around the house

Either do or arrange to have the house cleaned

Psychological domain

Contact a friend when I feel lonely

Do something that helps me feel better when I feel down

Not allow feelings of discouragement to stop me from doing the things I want

Overcome negative thoughts that I may have about myself when I feel down

Social domain

Attend a social gathering with friends

Take part in new hobbies and new activities

Invite a friend to go out with me (e.g., go to a movie, go for a coffee, etc.)

Attend an event or go places on my own (e.g., movies, libraries exhibitions, etc.

Appendix E: Daily-Living Self-Efficacy Scale Questionnaire

Daily-Living Self-Efficacy Scale Questionnaire

Please rate how confident you are that you can do each of the things described below as of now. Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100
Cannot do at all					Moderately can do					Highly certain can do

(0-100)

I am confident that I can:

1. Look after my finances (e.g., paying bills, banking, etc.)
2. Attend a social gathering with friends
3. Contact a friend when I feel lonely
4. Either do or arrange to have the shopping done
5. Take part in new hobbies and new activities
6. Do something that helps me feel better when I feel down
7. Arrange any necessary repairs around the house
8. Invite a friend to go out with me (e.g., go to a movie, go for coffee, etc.)
9. Not allow feelings of discouragement to stop me from doing the things I want to do
10. Either do or arrange to have the house cleaned
11. Attend an event or go places on my own (e.g., movies, libraries, exhibitions, etc.)
12. Overcome negative thoughts that I may have about myself when I feel down