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# Home Health Aides' Performance and Home Health Clients' Quality of Life

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This is to certify that the doctoral study by

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Abstract

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MS, Troy University, 2011

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Home health aides' performance can help home health clients achieve quality of life. This quantitative, cross-sectional study examined which work-related factors of home health aides influence home health clients' quality of life. A socioecological perspective was used to understand influences on behaviors. Participants in this study were 400 home health clients who received services from home health agencies. A binary logistic model was used to determine the predictor variables of home health aides that contributed to home health clients' quality of life. Findings indicated that psychosocial skills were among the most predicted work-related performance of home health aides that lead to quality of life for home health clients. All independent variables (professional care; teaching clients about medication management, pain, and home safety; and social and communication skills) showed significance ($p < .05$). The implications of this study for positive social change include contributing evidence to support improving home health practices and informing policies, which might increase the quality of life for home health clients.

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# Dedication

This study is dedicated to my mother Betty Smith, my late father Henry Tarver, My late grandfather Roscoe “Jack” blue and late grandmother Pearl Blue. I would also like to dedicate this study to all my brother and sisters, nephew and nieces, cousins and friends. Special thanks to Randy Smith, Kelsey Owens, Shawanda Young Lee, Herman Wright, Landon Johnson and William Butler for pushing me to complete this study despite all the challenges that I faced. I will also like to dedicate this study to my lord and savior Jesus Christ for giving me strength through this journey. Thank you for all your advice, expertise, wisdom, and motivation.

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## Introduction

In the United States, home health services are becoming a high demand for the elderly population. By the year 2030, it is projected that more than 20% of the U.S. population will be 65 years of age or older (Olson et al., 2016). Because this population is living longer, it is important to have quality care because of health problems in this population. To facilitate care for these emerging needs, home health services are an important resource to explore. Home care workers, such as home health aides, will play a significant role to the success of this population gaining quality care (Olson et al., 2016). The occupation for home health aides is currently at a rate of 2.1 million within the United States, and this number is projected to grow to 3.1 million within the next decade (Olson et al., 2016). In this projected occupation growth, there is a need for more research to better understand home health aides' work-related performances and how they can be predictors to home health clients receiving quality care.

Home health aides are typically women of lower economic status and ethnic minority groups (Muramatsu, Yin, & Lin, 2017). Home health aides provide many services to home health clients depending on the need of the individual receiving the services. Some services that home health aides provide are working with seniors on activity of daily living, providing companionship, and providing personal care such as bathing, preparing meals, and assisting with medications. These work-related performances are performed with the goal of increasing quality of life for home health clients. Quality of life for home health clients can come in many ways such as self-

reports about their ability to do more for themselves and live better lives. Quality of life can also be measured by understanding the different roles of home health aides' work-related performances, which can influence home health clients' quality of life. Thus, this study was aimed at better understanding these work-related predictors of home health aides and how they affect quality of life for clients.

Home health aides are typically hired by home health agencies, which are companies that hire home health aides to provide services for the elderly population. The objective of home care is to provide services to the elderly population at a reasonable cost, to provide home-based care for those individuals who are discharged from hospital care, and to provide services for individuals who are cognitively and physically impaired (Fraser, Sales, Baylon, Schalm, & Milklavcic, 2017). Home health agencies have different missions and goals, but promoting healthy lifestyles is the goal most obtainable (Walters, Dijkstra, De Winter, & Reijneveld, 2015). Home care services are provided based on the needs that are assessed during initial visit between the family, client, and case manager assigned to the case (Fraser et al., 2017). Case managers then use these assessments to outline care plans that are constructed alongside the family and the client before assisting with coordinating care and services as needed (Fraser et al., 2017). They then monitor the client experience with the care provide, and work with the goal of ensuring the safety and well-being for their clients (Fraser et al., 2017). The case manager does not include the service coordinator in the plan of care development. The service coordinator role is to facilitate the services based on the care plans created by the family, the client, and the case manager (Fraser et al., 2017).

Because there is a huge amount of time spent in clients' homes by aides, it is important to have a better understanding of predictors for quality of life that are based off work performances. However, there is a lack of data focused on care processes that involves the role of home health aides' work performances as well as outcome data such as quality of life for home health recipients (Fraser et al., 2017). Building stronger research around predictor factors of home health aides can produce more outcome data. This new development of outcome data can give some insight into quality of life for home health clients.

## Problem Statement

Previous literature has indicated the need for better predictors of quality of life for home health clients. Research is needed to understand the predicted work-related performances that may impact home health clients' quality of life. These findings can help in influencing policies and can help build stronger home health practices. But there are limited studies on quality of life outcomes for home health clients and even less on work-related performances for home health aides (Emmerink & Roeg, 2016). This lack of data can affect quality of services and client satisfaction. Additionally, more research is needed on home health aides' work-related performances because of the increasing aging population (Yoon, Probst, & DiStefano, 2016). With age comes the potential of mental and physical decline, making research around work-related factors key in understanding what factors can increase quality of life for home health clients. Most research has been focused on health outcomes, quality assurance, and delay of relocation to hospital or institutional environments (Kadowaki et al., 2015). Therefore, this study addressed this

problem of understanding the predicted work-related factors of home health aides that influence home health clients' quality of life.

## Purpose

The purpose of this study was to better understand the predictors of quality of life for home health clients based on home health aides' work-related performances. Home health aides' work performances may vary, and these variations can be predictors to quality of life for home health clients. Quality of life is based on how home health clients rate their ability to take care of themselves and live better lives after having assistance from home health aides in their homes. Additionally, quality of life can be determined by number of hospital admissions or number or injuries, though the perspective individuals receiving services can be the most accurate way to measure quality.

Historically, healthcare delivery systems within the United States have relied on care deliverance from friends and family for basic needs care with home health clients (Zoeckler, 2018). Today individuals 65 years and older are living longer, making the need for better interventions necessary (Zoeckler, 2018). With age comes challenges such as physical limitations, living alone because of family members relocating, and cognitive distortions. Therefore, providing more research on predictors of quality of life is important for individuals who are providing home care services (home health agencies) as well as recipients of services (home health clients) to better understand and improve care.

## Research Question/Hypothesis

To what extent are work-related factors of home health aides, while controlling for types of ownership, predicted to influence home health clients' quality of life?

$H_0$: There are no work-related factors, while controlling for types of ownership, that are predicted to influence home health clients' quality of life.

$H_a$: There are work-related factors, while controlling for types of ownership, that are predicted to influence home health clients' quality of life.

## Theoretical Framework

The theoretical base that grounded this study was exploring the variables from a socioecological perspective. *Ecology* is a term that comes from biological sciences, which refers to the interrelationships between organisms and their environment (Glanz, Rimer, & Viswanath, 2015). The ecological perspective on health behaviors can give a more comprehensive understanding of the many factors that influence health behaviors. This framework can also shed light on the steps to alter behaviors. Ecological models in public health are used to better understand the nature of people's transactions with their sociocultural and physical environments (Glanz et al., 2015). The ecological perspective on health behaviors has five principles that are based on this theory: (a) there are multiple levels that influence health behaviors, (b) contexts play a role in determining health behaviors, (c) health influences interact across several levels, (d) these models should focus on behavior or be behavior specific, and (e) there are important influences at all levels of influence (Glanz et al., 2015)

This study followed the premise of this theoretical framework by exploring the levels of home health aides' work-related performances and quality services provided for home health clients. Understanding these variables from an ecological perspective helped answer questions from multiple levels, leading to more comprehensive results. Using this model in this study also provided a framework for integrating other theories and models that are used to create a comprehensive approach the creation of interventions (Glanz et al., 2015). Home health aides' work-related performances can be examined through many different levels to understand their level of work responsibilities. Exploring intrapersonal levels helped in understanding the demographic, biological, psychological, and family factors that may be influencing home health aides' work performances. Environmental factors can also be explored to understand variables that contribute to work performances such as safety issues, comfort levels, and overall attractiveness to their job. There are policies that could contribute to home health aides' work performances that can indirectly affect home health clients' quality of life. These levels give more of a comprehensive outlook on the problem that has been identified in this study.

The framework for this study was also chosen because socioecological perspectives of older age individuals have been used to investigate issues that affect this population (Kim & Kim, 2017). For example, increased life expectancy has become a focal point for many researchers because living longer leads to more health disparities. It is important to understand what it means to be healthy as well as what is needed for this population to achieve quality of life. Healthy aging can have many influences such as biological, psychosocial, and environmental factors, which makes understanding this

population and their health a multivariate issue (Kim & Kim, 2017). This study was designed to identify predicted variables that influence quality of life for home health clients through work performances of home health aides. Home health aides' duties are aimed at promoting and building health for home health clients. Health promotion is determined by influences that come from multiple levels, which may include community, personal, and public policy factors that are derived from a socioecological perspective (Kim & Kim, 2017). Therefore, home health aides' work-related performances were best understood and explained through the exploration of ecological systems.

## Nature of Study

The nature of this study was focused on quantitative research. The statistical tool that was used in this study was a logistic regression model, which helped answer the research question by providing data that showed predictor factors such as home health aides' work-related performances in quality of life for home health clients. This statistical tool also helped with controlling for confounding variables such as ownership types.

The study design that was used in this study was a cross-sectional study design that allowed the outcome and the exposure variables to be explored in the study participants at the same time. The selection of the participants was based on secondary data from the home health database that surveyed numerous home health agencies across the United States. This secondary data source was retrieved from a website with reliable and valid data that is managed and hosted by the U.S. General Services Administration and Technology Transformation Service (Data.gov, n.d.).

## Literature Search Strategy

I used several databases (Business Source Complete, ProQuest Health & Medical Collection, and PsyInfo), two libraries (local and Walden University), and Google Scholar to locate scholarly journal articles and to define my research topic. Key words were reviewed in research articles that were used to build this study. Some key words were *quality of life, home health aides, home health clients*, and *work performances*. The only articles that were reviewed were peer-reviewed articles no more than 10 years in date from the current year.

## Literature Review

The literature review covers research on background data of home health aides' work-related performances and quality of life, different challenges faced by home health aides and home health clients, safety and health support, and educational predictors, psychological and social factors, geographical factors, and quality of life dimensions. In the following sections, I also discuss gaps in the literature relating to home health aides' work-related performances on home health clients' quality of life.

### History of Home Health Aide's Work Related Performances and Quality of Life

Home health agencies will continue to grow in the United States as the elderly population continues to age (Blau, Chapman, & Neri, 2015). Thus, the occupation of home health aide will continue to grow from 2012-2022 with a 49% growth (Blau et al., 2015). Because of this growth, there have been numerous interventions to help the quality of life for home health clients. Home health aides have been provided training based on research as to aid them in providing services to home health clients. Home health workers

have also been researched to better understand some of the issues that this occupation may face daily. One factor that has been predicted to cause a negative effect on job retention and positive work performances for home health aides is stress. The term *work performances* has been described by researchers as a combination of qualitative and quantitative aspects of performing work duties or tasks (Lindegard, Larsman, Hadzibajramovic, & Ahlborg, 2014).

There are many factors that can affect home health aides' work performance, which can then affect clients' quality of life. For example, researchers have found that a combination of perceived stress and frequent musculoskeletal pain at the highest level decreased home health aide work performances (Lindegard et al., 2014). Additionally, managed care if often seen as a solution for care when it is only a solution for budgeting, and there have been no reported strong correlations as it relates to quality health outcomes for home health clients (Neuman, 2015). Researchers have also found that job satisfaction has an association with increased turnover rates among home health aides (Chamberlain, Hoben, Squires, & Estabrooks, 2016). Further, job satisfaction is a key factor in home health clients receiving quality of life (Chamberlain et al., 2016).

Quality of life can have different meanings depending on an individual's views, and home health aides' perception of what it means to have quality of life is an important factor to address. Researchers have found that aides have reported that they always go above and beyond their normal assignments and duties to provide high-quality services (Franzosa, Tsui, & Braon, 2018). Without the additional physical and relational tasks as

part of their job duties, home health aides have expressed that their clients' mental and physical well-being would be compromised (Franzosa et al., 2018).

One solution to improving quality of life is home health aides becoming health coaches for home health clients. This is an approach that is aimed at moving beyond traditional educational approaches by engaging home health clients to self-evaluate their concerns that may prohibit healthy behaviors as well as disease management skills (Russell et al., 2017). Researchers have stated that this approach is a skill to teach patients how to do things themselves with the assistance of home health aides (Russell et al., 2017). One major thing that home health aides do through coaching is assistance with setting goals (Russell et al., 2017). Through health coach trainings, clients gain knowledge, tools, and confidence to manage their own care (Russell et al., 2017). For example, two pilot programs on health coaching—one program on clients with heart failure and the other with clients with chronic illness—have shown that clients in both programs had positive reports of improved self-care maintenance (Russell et al., 2017). This improved self-care maintenance can increase quality of life for home health clients.

Previous research has also focused on programs that are used to monitor and access quality of care for the elderly population. In Sweden, home health agencies have used a software called eldercare, which is an assessment tool to monitor quality of care and care satisfaction (Westerberg, Hjelte, & Josefsson, 2017). Researchers have found that almost all the users of this tool expressed an overall satisfaction with their care and stated that the problems they had were with work conditions, work organizations, and lack of resources within the eldercare organization (Westerberg et al., 2017).

Another consideration in improving quality of life for clients is the working conditions as part of home health aides' work performance, which varies from mental work to duties that involve physical activities. Home health aides assist clients with activities of daily living such as dressing, bathing, cooking, toileting, and transferring in and out of a wheelchair to bed (Hansell, Knaster, & Phillips, 2018). When working in these conditions, there is a chance of injuries, and the physical capability of home health aides is important to the home health clients' quality of life. Researchers have found that 13% of home health aides reported that they never had an injury or accident while performing physical activities of daily living skills with home health clients, with the rest of the sample reporting some form of physical injury or accident while performing physical work (Hansell et al., 2018). This illustrates the work conditions that home health aides face and how these work performances and risk of injuries could be a predictor in home health clients receiving quality of life.

**Challenges of Home Health Aides and Home Health Clients**

Home health aides and home health clients face many daily challenges (Panagiotoglou et al., 2017), and research around predictor work-related factors that promote quality of life for home health clients is needed. Understanding these challenges can help develop practices among home health agencies. Some of these challenges are working a job that pays low wages, minimum to no benefits, and unstable employment that results from irregular work hours (Seokwon, Probst, & Distefan, 2016). These challenges can pose retention issues for home health aides, making the ability to provide services for this population difficult. One way to help manage this growing population

and demand for home services is to improve the retention of HHAs who have been found to provide 80% of home care services (Panagiotoglou, Fancey, Keefe, & Matthews, 2017). These retentions issues can lead to lower quality of life for home health clients, creating a challenge for home health agencies. High turnover may have a negative influence on quality of care and can affect the continuity of care due to new workers having to adapt to the new clients (Seokwon et al., 2016). Persistent challenges such as low wages, low social status, heavy workloads, and high turnover rates can negatively affect quality of life for home health clients (Jang et al., 2017). Home health clients may become frustrated with the frequent changes of home health aides, which creates a loss of support from aides who they have connected with in their homes.

Home health aides' work-related performances may vary depending on the needs of the individual who is receiving the services, which can be a challenge in understanding which skills to use and when. This can cause personal stress and challenges among home health aides and can be a predictor to lowering job satisfaction and increasing high turnover (Seokwon et al., 2016). Home health aides also face challenges in their jobs that stem from the lack of support in their occupation. Home health aides do their work in the community, making it difficult to have support from supervisors, coworkers, and other staff (Panagiotoglou et al., 2017). This is a challenge when new situations arise in clients' homes and home health aides are expected to assist with little or no training. The lack of training can negatively affect home health aides' work performances and affect quality of life for home health clients. The new role expansion for home health aides also supported a need for more supervision and training (Berta et al., 2013). There are instances where

some home health aides' only communication with supervisors are when first hired and trained, then at selected times thereafter for maintaining funding for the agency. There is a need to better understand how and where home health aides work; what gain work motivations, and the preparation needed for home health aides to provide quality care for their clients (Berta et al., 2013). The knowledge gain from this can lead to better understanding of work-related predictors for quality care.

Job demand can also be a challenge for home health aides. Job demands are the various types of job-related or work-related strains that pose a burden on home health aides that usually depletes their energy (Jang et al., 2017). These can be predicted to cause a shift in providing quality services for this population. Physical overexertion and fatigue, work-family conflict, unfavorable work environment, and mental/emotional demanding interactions are sources for job demands (Jang et al., 2017). Though there has been a focus on home health aides primarily providing services such as activities of daily living that include things such as bathing, grooming, dressing, and meal preparations (Berta, Laporte, Deber, Baumann, & Gamble, 2013), many elderly clients living in their homes require more complex care, making this a challenge not only for home health aides but for home health clients.

In the field of home health, most workers are part time, posing challenges to dedicating all their time to one job or agency. Home health aides usually must work several jobs to make ends meet due to low wages as well as for medical benefits and additional compensation (Faul et al., 2010). Home health aides also struggle with inconsistent client assignment, which affects job tenure. Researchers have studied

predictors of intent to leave home health jobs and among the predicted factors were consistent patient assignments as an important factor for retention with home health aides (Stone et al., 2017). Some other predictors that also increase turnover is job satisfaction and provision of health insurance (Stone et al., 2017). Additionally, home health aides have received multiple levels of discriminations that stem from clients, family, agencies and organizations (Jang et al., 2017).

Despite these challenges, quality of life for home health care clients can be improved with a team approach to care that involves the day-to-day collaboration with primary care providers such as home health aides (McGough, Kline, & Simpson, 2017). This team approach should consist of all the care providers such as the nurse, agency director, home health aide, and nutritionist. This can ensure that each team member can work at the top of their scope, placing the home health client at the center of the team (McGough et al., 2017). Home health clients will then be better able to rate their lives as having quality due to home health aides being better able to teach skills that foster leadership.

**Safety and health support/education.** Home health aides work in community settings with many challenges beyond the control of the aides. Safety is not only important for home health recipients but for home health aides as well. The environments that home health aides work varies; some home health aides may work in urban communities or high crime areas, whereas some may work in poverty areas. Safety research is needed as a basis for policy and to promote health and productivity with home

health aides that could lead to increased work performances, resulting in an increase in quality of life for home health clients (Quinn et al., 2016).

Home health aides' job duties has many variations, with physical activity being among those work duties. Home health aides perform activities of daily living skills, transferring duties, bathing techniques, and cleaning, which require physical movement and create a risk for musculoskeletal injuries (Quinn et al., 2016). For example, there has been a correlation of home health aides reporting similar musculoskeletal injuries and hazards in home health settings in nursing homes and hospitals (Quinn et al., 2016). Though there are interventions to prevent or decrease Musculoskeletal injuries in this profession, there has been limited research on how this can be adapted in home care settings (Quinn et al., 2016). Improving occupational musculoskeletal health can have some positive impacts on home health clients' quality of life by providing more safety for workers, which will increase continuity of care (Quinn et al., 2016). Continuation of care, especially with the same home health aide, can help home health clients feel comfort, which can help with clients rating their lives as quality.

Another element that relates to safety is medication safety, which is not just a local concern but is a global phenomenon (Marck et al., 2010). However, there is little understanding of the support levels needed as well as barriers to safe medication management in home care (Marck et al., 2010). There has been research conducted on medication safety, but the focus has been mainly on institutional settings with less focus on home care environments (Marck et al., 2010). This lack of medication knowledge can pose a serious safety concerns for home health clients and affect their quality of life.

Home health aides often do not give medications to clients but can remind clients to take them at the designated times. However, if home health clients are not able to self-medicate, then home health aides can give home health clients medications, which can lead to medication errors such as giving the wrong medications or not logging the medications. This issue is more prevalent when working with home health clients who have intellectual and developmental disabilities. These clients are considered high risk and cannot be left alone unless with family or a home health aide. Training home health aides in coaching home health clients in medication management can be a big predictor of quality of life factors, while decreasing the chances of safety issues around medication consumption.

To improve safety, home health aides should also be trained to accurately serve this population. There are several trainings that are catered to individuals such as nurses and case managers who have higher levels of learning, but there has been less focus on direct care workers or home health aides who are not a part of the licensure track that focus on nursing and caring curriculum (Davis & Smith, 2013). Home health aides receiving adequate training based on their values and preferred learning styles is just as important as pay and benefits (Davis & Smith, 2013). These learning styles may cause low work performances and make it hard to provide quality services to home health recipients. For example, generational differences may play a role in learning, which can lead to poor quality of life for home health clients due to inadequate skills obtained from educational trainings from home health agencies (Davis & Smith, 2013). This can affect quality of life for home health clients due to the inconsistency of aides, making it harder

to adapt aan increasing anxiety among home health clients. Research has indicated that direct care workers only stay a year or less and typically do not work in any other area that involves direct care (Davis & Smith, 2013).

There has also been recognition of increase health and print literacy in the health care system (Davis & Smith, 2013). A goal of health literacy goals is to better understand how to use the health care system and how to understand the dynamics of health (Davis & Smith, 2013). Health literacy improvements within an organization can lead to better access for clients as well as increased quality of care for clients (Weaver, Zellin, Gautam, & Jupka, 2012). Home health aides perform several health-related duties, but over one-third of these aides have inadequate health literacy and have difficulties such as following medication-related instructions (Lindquist, Jain, Tam, Martin, & Baker, 2011). Educating caregivers as well as ascertaining their health literacy levels before care is administered may be an important process in providing care to seniors, thus increasing quality of life for this population (Lindquist et al., 2011). It is important for health literacy efforts to be part of an agency or company's overall quality improvement plan that could strengthen home health practices (Weaver et al., 2012).

**Psychological/social factors of home health aides and home health clients.** Home health aides' job duties have many variations with some of those skills being communication skills. The elderly population is vulnerable and can perceive quality of care in many ways. In addressing this population, it is important to understand the psychological and social factors that affect home health clients as well as home health aides. For example, researchers have noted that home health aides' perception of respect

for their quality of work from their leaders, supervisors, and administrators are key in aides remaining in their roles as caregivers (Davis & Smith, 2013). Better understanding the predicted psychological and social factors of home health aides and home health clients could help with the adaption of new policies in home health agencies.

Fostering social engagement in late life can be a huge predictor in home health clients obtaining quality of life. Home health aides' ability to engage in appropriate social conversation is a work-related performance that may be disregarded as important to some agencies. There has been published research where researchers found social factors to be a major determinant of well-being not just for the elderly population, but for any age (Rowe, Fulmer, & Fried, 2016). There were also other researchers who found similar findings that states that both the physical and psychological difficulties of home care work is a widely-recognized phenomenon and is known to be responsible for a very high rate of work-related incidents or issues for home health aides and home health clients (Doniol-Shaw & Lada, 2011). The same researchers state that risk tend to be exacerbated by ongoing changes in the organization of home care work (Doniol-Shaw & Lada, 2011). This inconsistency in work-related performances could cause emotional problems or may increase home health aide's anxiety levels by making aides question their ability to continue providing services to clients. There are strengths with these findings and it can be predicted that these work-related factors can play a major role in quality of life for home health clients.

When you think of social interaction, the first thing that may come to mind is engaging in meaningful conversations. Even though this may be a form of social

interaction, there are other common ways to increase social interactions. One way is to increase the elderly's natural support system. Natural supports are anyone who is in the client's social network that is meaningful to them. The elderly population have low or limited natural supports in their lives, thus making the need for home health care more prevalent. So, it makes sense that most home health aides become external family members to home health clients, especially if the aide has strong tenure with the client. This can pose issues for home health clients who lack skills in engaging in social interaction, or aides who feel engaging in social interaction is a work-related performance that may cause issues with home health clients.

Another aspect of home health aides' work-related performances on home health client's quality of life is their ability to continue to provide excellent services without becoming too attached to home health clients. The population of home health typically involves individuals 65 years and older, thus making the reality of end-of-life (EOL) more prevalent. Home health aides play a vital role in providing palliative and EOL care for home health clients (Riesenbeck, Boerner, Barooah, & Burack, 2015). The reality of death is typically in this population, thus making the ratio of turnover high with aides who are not properly trained to deal with death of clients. Working with elderly clients who have chronic illness, serious emotional disturbances, etc., can be difficult on aides who are not trained properly. Having to endure this on regular occasions can cause some emotional distress on home health aides thus altering their ability to provide quality services to home health clients.

Home health aides provides the bulk of day to day care for this population and is the primary social contact for these clients (Riesenbeck et al., 2015). As a result, the aides become close and build strong bonds with their clients. Researchers have found that many home health aides see clients as friends or family members as they spend months to years providing care in their homes (Riesenbeck et al., 2015). Home health clients view aides in the same manner, due to not having biological family or friends around. Researchers have reported in similar studies that the shortage of available family members are due to many demographic changes that have evolved in Western society over the past decade which includes increase in longevity, the nuclearization and fragmentation of the family system, and women entering the workforce (Ayalon, 2009). These finding provides valuable information into why so many home health aides struggle with becoming emotionally connected to their clients, with the goal of protecting themselves from a sense of loss in the case of experiencing the death of their clients.

Home health aides not only provide this emotional support to the clients, but to family members as well, with the main work-related challenges being the emotional support that is given and needed by the clients (Riesenbeck et al., 2015). It would be wise for home health agencies to consider this factor as a goal to increase coping mechanism for home health aides due to the psychological and social aspect of this occupation. There have been other studies where researchers found that an increase in preparedness plans around death of clients, increases quality of life for home health clients (Rowe et al., 2016). Researchers approached this work- related problem from a strength related approach. They wanted to show how increasing a preparedness plans, which could

include increasing coping skills as well as ways to implement coping skills could be a huge predictor in home health clients obtaining quality of life.

**Geographical factors.** Home health care typically operates with the same structure no matter what agency is operating it. These agencies have uniform ways of insuring that home health clients receive quality care. These statements have been debated for years now leading to new development of research that inform policies all around the world for home health agencies. Home health care date back to their first appearance in the United States as well as France in the 1920's, which was later adopted by other countries across the world (Redjem & Marcon, 2016). There may be variations in how home health care is operated in other regions of the world. A question that may inquire the mind of researchers is understanding if there are differences in how home health care operates within different regions of the world. This question can lead to many predictors to quality of life by better understanding how home health aides work related performances may vary in different regions. Another question to explore is if there are differences in how services are provided for home health clients from aides who are from foreign countries. There were limited studies that address these concerns, but researchers have found that community health worker's programs, such as home health programs, face many daily challenges and those challenges are sometimes hard to overcome (Naimoli, Perry, Townsend, Frymus, & McCaffery, 2015). There is potential to extend the reach of inadequately resourced health systems to under-served populations which can improve service access with equity by 2030 (Naimoli et al., 2015). As a result, community health workers (who are considered anyone who provides services in the

community including home health aides) programs are experiencing a resurgence of interest and are more than likely to continue to attract not only national but international attention as well as investment within the next decade and well beyond (Naimoli et al., 2015).

Home health services, as previously stated, is growing in high demand and will continue to be a needed source in years to come. This is not only true for the U.S. but also is true for other countries as well. Home health agencies were started in different countries for different reasons. The main motivation for the creation of home care services have different meanings across the world but has similar missions. In Canada, the main motivation to start services was to reduce the number of individuals who occupied hospital beds, in the UK the motivation was due to congestion of acute care beds, in Australia the motivations were insufficient hospital services, in France the motivation was congestion of hospital care beds, and finally, in Italy the motivation was aimed at reducing the care system cost (Redjem & Marcon, 2016). These countries motivations lead to them incorporating home health services in their communities. Knowing this information can be vital to understanding how to help clients reach high quality of life. The goal and mission of the company can be a major component in increasing this quality.

It is important to understand those geographical factors that influences home health services deliverance. In the year of 2011, there was more than 4.7 million patients who received home health services and in European countries, there was a rate of between 1% and 5% of the total health budget in this country spent on home health

services (Fikar & Hirsch, 2017). These finding are evidence to the need for more research on geographical factors related to home health clients, as well as predictors that can help shed light on what is needed to build stronger practices in the field of home health. Most of the research thus far give information about the history of home health services globally but does not give much information on predictors of home health aides performances across different countries or whether these unknown predictors can be generalized to improve quality of life for home health clients in the US.

**Quality of life for home health clients.** Quality of life for home health clients should be a goal and mission set out by home health agencies across the world. Quality of life for the elderly population whom resides in care homes as well as other settings has become an important issue to address given the increasingly aging population (Leung & Famakin, 2017). World Health Organization (WHO) defines quality of life as an individual's perception of their position of life regarding culture and values (Escuder-Mollon, Esteller-Curto, Issakainen, Lubkina, & Lozanova, 2014). WHO also states that quality of life relates to the individual's goals, expectations, standards and concerns (Escuder-Mollon et al., 2014). Quality of life requires in-depth consideration due to the imminent anticipated growth rate in years to come (Leung & Famakin, 2017). Understanding the dynamics of want constitutes quality of life can help researchers in understanding how to reach quality for this population, thus providing valuable insight to recipients for use in their practices. How does quality pertain to home health? The purpose of home health is for clients to have quality care in their home to prevent or decrease the number of hospitalizations in the communities. Home health care also is an

alternative to long term care facility such as nursing homes. Researchers have spent years unraveling the question of what constitute quality for this population (Leung & Famakin, 2017).

Quality of life is a very broad and complex issues (Escuder-Mollon et al., 2014). Quality of life can have some subjective and objective components as well as psychological, physical, and social components that makes up an individual's ability to rate their lives as having quality (Escuder-Mollon et al., 2014). When thinking of quality of life, this mission not only is beneficial to the direct recipient of it but can have society influences as well (Escuder-Mollon et al., 2014). Increasing quality of life for home health clients will help with heavy hospitalizations, save Medicaid dollars, and will decrease cost in funding long term facilities. Increasing quality of life will also increase this population ability to rate their lives as meaningful. Home health client's quality of life can have many dimensions which can be direct factors that will indicate if the individual experiences are good or bad. Knowing this information can be beneficial to home health agencies locally and globally.

World Health Organization (WHO) describes six dimensions to quality of life (Escuder-Mollon et al., 2014). The six levels are psychological, physical health, level of independence, social relationships, environment, and spirituality/religion/personal beliefs (Escuder-Mollon et al., 2014). These dimensions help to better understand how to evaluate levels of quality in home health clients as well as other individuals receiving services who are 65 years of age and older as well as other demographics. Exploring these dimensions give insight into how clients may improve with the care of aides. Home

health agencies have a goal as well as a mission to increase quality, thus meaning improving any of these dimensions.

Too often, quality of life is thought of as improving in physical, social, and independent abilities. There seem to be less focus on the psychological aspect of quality of life. The psychological health is the emotional reactions that these clients experience which can result from the subjective interpretation of viewing their own health (Leung & Famakin, 2017). This aspect is a major component of quality of life. Home health clients tend to get emotionally attached to their home health aides which could result in the client becoming depressed if an aide is not readily available to them. The same affect can happen to home health aides, especially those who have years of tenure with their client. Researchers conducted a study on depression and quality of live in older persons and found that depression is predicted to have influences on quality of life (Sivertsen, Bjorklof, Engedal, Selbaek, & Helvik, 2015).

This influence may indirectly affect any assessment that may be used to measure quality of life for this population. Most of these individuals long for companionship, as well as someone who they can be happy with during this most critical part of their lives. In stating this, quality should be measured holistically, not just through one lens but multiples. Quality of life is something that can have variations with age and can also vary depending on specific situations that may jeopardize elements of previous quality of life (Escuder-Mollon et al., 2014). This research finding is very valuable for purposes of quality of life assessments creations. Any assessment that measure quality need to take into consideration this aspect as well as others.

Home health clients may have had different experiences in their lives that they may generalize to new situations. This generalization can cause data to be skewed. For example, someone who has negative cognitions about young home health aides may rate their care as unsatisfactory even if they are receiving great services. Also, elderly individuals who suffer with depression may have inconsistent ratings that are based on mood levels. These components can be beneficial for future studies with the goal of better understanding the roles of cognition on quality of care. These future findings can be valuable predictors to home health clients receiving quality of life, especially if home health aides are able to gain training on working with clients who have daily negative cognition, or clients who suffer with depression. It has been noted that by the year of 2020, depression will become the third leading cause of disability worldwide (Sivertsen et al., 2015). This will increase home health services and will inquire the need of skilled trained home health aides who are equipped to deal with these emotional disturbances. In the past researchers have done cross-sectional studies that solely assessed global quality of life, and in those studies, there was a negative association between depression and global quality of life, the higher depression, the poorer quality of life ratings (Sivertsen et al., 2015).

Psychological components of quality of life needs more recognition from researchers. The predicted depression rates warrant such action, making some possible evidence for organizational change to meet these needs. There are still many researchers who predict that physical wellbeing is the most important component of quality of life for senior learners which is followed by psychological components (Escuder-Mollon et al.,

2014). These findings give more evidence as to why all levels of quality of life dimensions should be considered as to not only view a person's quality as being able to physically do for themselves, but as a multidimensional aspect. This may be an important goal to obtain by this population, but this alone cannot be used as a 100% determination of quality for seniors or home health clients. There is still a need for better predictors to quality of life as to better define those six dimensions of quality outlined by WHO, so that better interventions can be created for home health aides and adopted by home health practices.

## Operational Definitions

*Home health aides (HHA):* Home health aides are individuals who are hired to provide home services for the elderly population which includes but not limited to bathing, grooming, etc. (Franzosa, Tsui, & Braon, 2018). Home health aides typically work in home-based settings that could be private or public (Health Care Pathway, 2019). There are different requirements to be employed as a home health aide which may vary depending on individual states. For example, in the state of Alabama, home health aides have different requirements which may include trainings and/or examinations (Health Care Pathway, 2019). Home health aides can be employed by state government or by Medicare/Medicaid certified home health agencies (Health Care Pathway, 2019). Home health agencies are typically directed by RN's, or some other health professional. The term Home health aides is often used synonymously with other terms such as health care aides, home care aides, nurse aide, patient care aide, resident care aide, and direct care worker. (Berta et al., 2013).

*Home health clients (HHC):* Home health clients are individuals who receive services from home care workers who are referred by home health agencies (Franzosa et al., 2018).

*Work performances/ Work-related factors:* These are job duties that are done by home health aides in the home with the elderly population which can include giving meds, bathing, etc. (Franzosa et al., 2018).

*Type of Ownership:* Type of ownership describes the different kind of ownership or operating types within the home health business. The types are: Hospital based program (home health business that is affiliated or provided through hospitals) local (home health business that are local in the communities), visiting nurse associations (an organization that provides home healthcare through network of nurses and other skilled staff), official health agencies (these are official home health agencies) and combination government volunteers (individuals who volunteer to provide unskilled services).

*Quality of life:* Quality of life is the standard of health, comfort, and happiness experienced by an individual or group (Han, Kim, Storfjell, & Kim, 2013).

## Assumptions

The questions in the Home health agencies survey federal database is reliable and valid measures of work-related performances that are directly related to home health aide's duties in home care. This data was derived from various home health agencies across the U.S. that all resulted from home health quality questions. Participants answered the questionnaire honestly based off their experiences with home health aides

and home health clients reports of quality. Finally, the sample size was sufficient, and it represented the population that was under study and the participation was voluntary.

## Scope and Delimitations

This study focused on secondary data from Data.gov site, that was derived from U.S. Department of Health & Human Services. This database gives a list of home health agencies that has been registered with Medicare. This data set give information that is related to quality of life measures ratings based off each home health agencies registered with Medicare and Medicaid. The population is home health agencies across the U.S. who provided in home services for home health clients. This study focused only on work-related performances from home health aides and their predicted impact on home health clients. The literature that I review focused mainly on quality of life dimensions, home health aides work performances and how these could be quality predictors for this population. There were reviews of literature that focused on challenges faced in home care services, psychological and social factors of HHA's and HHC's, geographical factors, leadership/management roles and safety and health/educational support. There was no literature explored that focus on costs of home care, any causation of variables, or any other population in home care services other than home health aides, home health clients (elderly population) and home health agencies.

## Significance of the Study

Home health care services has had a significant impact on the prevention of unnecessary hospitalization of older adults and has at the same time reduced the cost of health care (Seokwon et al., 2016). In 2013, it was reported by the U.S. Bureau of Labor

statistics that approximately 1.9 million workers worked providing direct care services to this population (Seokwon et al., 2016). Home health aides were among this elite group of direct care workers who assisted with the goal of allowing older adults to receive care in their homes. Researchers have noted a shift in America where by the year of 2019 people who are older than 65 years of age will outnumber those who are younger than five (Landers et al., 2016). With this longer life expectancy, there may be a need to continue to help this population remain independent as possible (Landers et al., 2016). Remaining independent is one of the greatest health challenges that is facing the U.S. with this population who have different maladies of aging and serious chronic illness (Landers et al., 2016).

More research is needed to better understand the predictors of quality of life for home health clients. More research is needed to better understands the impacts of practices as to increase quality of life for home health clients, while understanding all the predicted factors that may or may not have a role in home health aide's ability to provide these needed quality services. This study will contribute to the body of knowledge that already exist around quality of life for home health clients but will shed more light on home health aides work-related performance factors that can be predicted to impact quality of life for this population. These predicted factors can impact home health aide's ability to provide quality services. This contribution to research will help to promote social change by helping to build strong home health practices while bringing awareness to the predicted work-related factors on quality of life for home health clients. This research will assist with the potential development of new policies and procedures among

agencies that provide home health services. It will also lead to new ideas about training development for home health aides that are based off findings from this study. Lastly, this study will provide health professionals with resources or tools that will help in better understanding ways to increase life satisfaction for home health clients while helping them to increase quality meaningful lives.

## Summary

In section 1, there were explanation of a quantitative study that will be conducted to better understand work-related predictors of home health aides on home health client's quality of life. The statistical tool that was used in this study is a logistic regression model and the study design was cross-sectional. The purpose of this study is to better understand the predictors of quality of life for home health clients based off home health aides work-related performances. This study focused on answering the question of, "What are the predicted work-related factors (teaching clients how to take medications, providing proper bathing techniques, etc.) of home health aides, while controlling for ownership types that are predicted to influence home health client's quality of life?" This information will help to build stronger practices and could potentially lead to policy changes and adaptation of new training development for home health aides. This section also examined relevant literature on home health aides work related performances on home health client's quality of life.

In Section 2, research design and data collection were described in detail which included the sample and population, data collection process, analysis procedures, instrumentation for the ethical protection of the participants that are in the study, and

threats to validity. Section 3, consisted of the study findings and results. and finally, section 4 provided information on interpretation of findings, limitations of the study, recommendations, implications for professional practices and social change, and conclusions.

## Section 2: Research Design and Data Collection

In the previous section, information was provided on the current literature on home health aides' work-related performances on home health clients' quality of life. The review of the literature addressed the different related predictor factors to quality of life for home health aides and helped identify gaps regarding these predictor factors. This section includes the study design, sample, and analytical techniques that were used to address the research question.

### Research Design and Rationale

The purpose of this quantitative, cross-sectional study was to examine how home health aides' work-related performances affect home health clients' quality of life. I examined and explored different work-related factors and measured if they were predictors to impacting quality of life for home health clients. I explored work-related factors such as professionalism of home health aides and team members, communication/social skills of home health aides, and educational/coaching skills and interventions of home health aides (such as discussing medicines, pain, and home safety with clients). I then explored star ratings of quality of life for home health clients based on how clients rated their care after receiving services from home health aides. Finally, I explored how home health clients rated agencies based on the services of the home health aides. Even though ownership types could be predictors to home health clients' quality of life, they had no implication in this study.

## Secondary Data Analysis Methodology

The data analysis technique I used was a binary logistic regression analysis. I performed this analysis to measure all the independent variables—professional care, client education on medication management, pain, and home safety; and social and communication skills—to see if any of these factors could be predicted to have an impact on the binary dependent variable quality of life for home health clients. This statistical tool helped to control confounding variables such as various ownership types to prevent any misrepresentation of the output data so that the findings can be more reliable.

### Population

The population in this study included home health clients who have received home health services from agencies that provided home health aides. Data were collected by Department of Health and Human Services and CMS, who donated their data to HHCAHPS for public use (HHCAHPS, n.d.). This population was surveyed in the year of 2017 (HHCAHPS, n.d.). Home health agencies in various cities all over the United States were surveyed and the results were collected by government data publishers then made available on data.gov.

### Sampling and Sampling Procedures

The Home Health Care Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) survey data included home health clients across the United States who were surveyed about their quality of services from agencies who provided servicers from home health aides (HHCAHPS, n.d.). There were more than 500,000 participants surveyed nationally. To select the sample from each of the HHA's, the surveyors used a

random number generator to satisfy the criterion of randomness (HHCAHPS, n.d.). HHCAHPS catalog is updated on a nightly basis, meaning the total number of participants is always changing, and home health agencies add or delete datasets or HHCAHPS add new agencies on an ongoing basis (HHCAHPS, n.d.). The HHCAHPS team typically works with a designated open data point of contact who is a liaison for the agencies participating in the survey, which is how the data is collected from the agencies for public use. The selected HHCAHPS subset consisted of individuals who reside in various states and received services from the various home health agencies. Agencies were also chosen by those who had participated in Medicaid and Medicare services (HHCAHPS, n.d.).

**Sampling Frame**

The sampling frame included (a) home health clients surveyed about their quality, (b) home health clients who received services in various states within the United States from home health agencies, (c) participants surveyed in the year of 2017, (d) type of ownership and services offered, (e) all reported races or ethnicities. The survey excluded any questions about income, education level, age, and sex (HHCAHPS, n.d.). The survey was focused on questions measuring quality of life for home health clients based on work performances from home health aides and other care providers. The population sample also included not only those home health clients who received home health aides' services but other services from home health agencies such as physical therapy and nursing care services. I focused on data that showed that the recipient of the survey received home health aide services.

**Data Accessibility and Permissions**

The HHCAHPS database contained various questions on home health aides' work performances and quality of life for home health clients. This database was downloaded to a csv. File because the HHCAHPS database sources can be download for public use at any time. This data were accessed upon approval given by the Walden Institutional Review Board (approval no. 11-05-18-052776).

**Power Analysis**

I conducted a power analysis to determine the sample size for the binary logistic regression. Based on the power analysis, the required sample size for the analysis was 400 participants. This information was derived from using G*Power calculator for logistic regression analysis. G*Power is a standalone power analysis program that is used for many statistical tests commonly used for behavioral, social, and biomedical sciences (Faul, Erdfelder, Buchner, & Lang, 2009).

The effect size chosen had two probabilities. The justification for this effect size was to get better predictions of probability as it may occur in a sampled population. The effect sizes were placed at medium values to increase the magnitude of the effect so that the difference, even if its statistically significant, is not trivial. An analysis of the effect size involved the following:

- Pr(Y=1|X=1) H1= What is the probability of home health clients' quality of life (Y=1) when the main predictors (Home health aides' work-related performances) is one standard deviation above its mean, and all other

covariates are set to their mean values. The assumed mean of home health aides' work-related performances influencing home health clients' quality of life is 0.50.

- Pr(Y=1|X=1) Ho= What is the probability of home health clients' quality of life (Y=1) when the main predictors (Home health aides' work-related performances) is at the mean, and all other covariates are set to their mean values. The expected mean of home health aides' work-related performances influencing home health clients' quality of life is 0.30.

The alpha level was set at 0.05 in this G*Power analysis to indicate a 5% risk of concluding that there would be influences when there may not be. The significance level is the probability of rejecting the null when it is true ("Understanding Hypothesis Tests," 2015). Therefore, in this analysis, the goal was to give a 5% risk of concluding that there were work-related performances from home health aides that are predicted to influence home health clients' quality of life. This was done to make fewer errors in case the results did not display influences.

The power level chosen was 0.95. The desired level usually is set at 80% or higher. The justification for choosing this power level was to make a strong prediction of rejecting the null hypothesis that home health aides' work-related performances are not affiliated with the value of the outcome variable (home health clients' quality of life). It was also important to make sure that enough power was given to find a significance prior to the study and to have a sufficient sample size for accuracy.

The R-squared other X was set at 0.70 to account for the main predictor variables and all the other covariates that may exist. It was important to understand how much of the difference in home health clients' quality of life would be explained by the model. Choosing 0.70 R-squared other X indicated that the amount of home health clients who receive quality of life based on home health aides' work-related performances explains 70% of the difference in rating high levels of quality. The other 30% represents all the other factors that are unknown.

The result of this power analysis suggested a 95% chance of correctly rejecting the null hypothesis that there are no work-related performances of home health aides that are predicted to influence home health client's quality of life, with 345 participants. The results of the power analysis are shown in Figure 1.

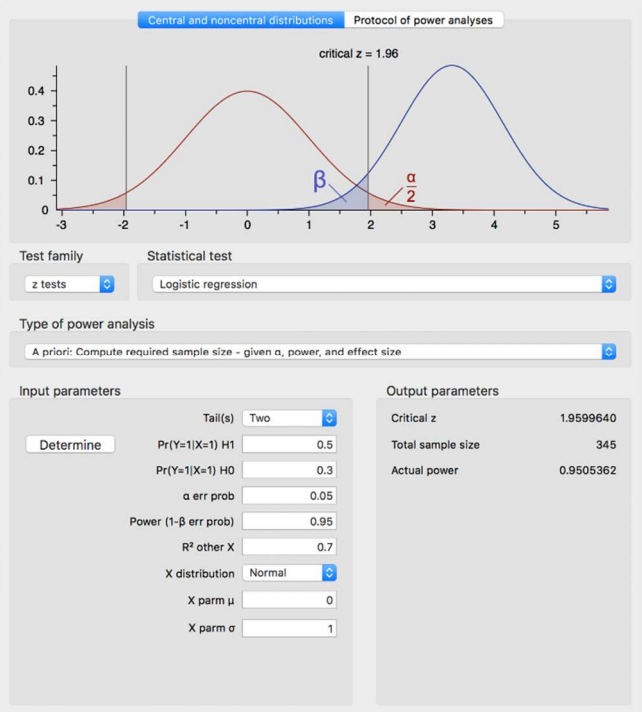


*Figure 1.* Diagram of G*Power Analysis output from G* Power 3.1 Software.

## Data Collection and Management

HHCAHPS provides several databases that are uploaded for the use of the public. HHCAHPS house several different databases on many different occupations and fields of studies. These databases were collected for research and for general use among individuals who may have a need to use the data.

### Instrumentation

For this study, data from HHCAHPS were downloaded into an Excel spreadsheet, then transferred to a file to be uploaded and used in SPSS. The data were home health clients' data derived from different agencies across the United States. The survey that was used to collect this data was the HHCAHPS survey. The Agency for Healthcare Research and Quality's CAHPS program developed this survey, and it was first published in March 2009 (HHCAHPS Survey, n.d.). In October 2009, the Centers for Medicare & Medicaid Services (CMS) starting to implement the survey on a national basis (HHCAHPS Survey, n.d.).

This survey was first voluntary, but it later became part of quality reporting requirements for home health agencies annual payment update (HHCAHPS Survey, n.d.). This data were useful for my study because the questions help in understanding factors that lead to quality or lack thereof for home health clients. This data were made available for public use. In scoring the surveys from participants, to ensure reliability HHCAHPS scores with fewer than 40 total completed surveys are said to not have sufficient reliability (HHCAHPS Survey, n.d.). The creators of this survey wanted to ensure that the

survey was accurately measuring true performance and not noise in the data when it came to report the performances measures (HHCAHPS Survey, n.d.).

**Operationalization of Variables**

There are several variables that were explored in this study. The variables that were used in this study showed nominal data. The dependent variable was binary, and the independent variables were nominal as well as the confounding variables. Table 1 shows the nominal data that were used in my analysis. The variables include type of ownership (confounder); professional care (independent); psychosocial skills (independent); client education on medication, pain, and home safety (independent); and quality of life (dependent) binary variable. Table 1 provides an illustration of the variables' operational definitions.

Table 1

*Operational Definitions of Variables*

| Name | Type of Measurement | Definitions | Variables |
|---|---|---|---|
| Type of ownership (confounder) | Nominal | Type of ownership such as local | 1 = Hospital based program<br>2 = Local<br>3 = Visiting nurse association<br>4 = Official health agency<br>5 = Combination government voluntary. |
| Professional care (independent) | Nominal | Home health client's rating of team (Home health aides) professionalism. | 0 = ratings of 0-1 meaning low.<br>1 = ratings of 2-3 meaning mid.<br>2 = ratings of 4-5 meaning high. |
| Psychosocial skills (independent) | Nominal | Home health client's rating of (home health aides) level of communication. | 0 = ratings of 0-1 meaning low.<br>1 = ratings of 2-3 meaning mid.<br>2 = ratings of 4-5 meaning high. |
| Client education on medication management, pain, and home safety (independent) | Nominal | Home health client's rating of (Home health aides) ability to educate and train on medication administration, pain management, and home safety. | 0 = ratings of 0-1 meaning low.<br>1 = ratings of 2-3 meaning mid.<br>2 = ratings of 4-5 meaning high. |
| Quality of life (dependent) | Nominal | Home health client's rating of their quality of care based of services from home health aides. | 0 = rating of 1-2 on a 5-point scale (indicating independent variables not having an influence on quality of life).<br>1 = rating of 3-5 on a 5-point scale (indicating independent variables having an influence on quality of life). |

## Data Analysis Plan

I used SPSS Version 23 to perform all data analysis. To examine the research question, I performed a binary logistic regression to see if the identified independent variables predicted the dependent variable in this study. For the research question, the independent variables were professional care; psychosocial skills; client education on medication management, pain, and home safety; the dependent variable was quality of life; and the confounder was type of ownership.

### Data Cleaning Procedures

The HHCAHPS data set was submitted by HHCAHPS national database and housed questions that focused on home health clients work-related performance and duties of home health aides. For the analysis that was performed, I used this archival dataset that has been placed on a public use website for research proposes. The first thing I did was download the dataset to a csv. file so that it could be imported in SPSS software system. The next thing that was done is cleaning the large data set into a subset that will only house variables that is relevant to my study. It would be important to check frequencies to better understand what exist in the old dataset as to understand how to formulate new data set. For this study, the only focus was on those participants who received services from home health aides versus other services. This was done by selecting those participants from the survey dataset, who had services from home health aides by using the SPSS statistical software. Next, all the variables were recoded using SPSS recode function. I then reorganized all recoded variables into a new table. Next, I performed a binary logistic regression and other steps as needed.

**Research Question and Hypothesis**

To what extent are the predicted work-related factors (teaching clients how to take medications, educating on safety, etc.) of home health aides, while controlling for types of ownership predicted to influence home health client's quality of life?

**Ho1.** There are no work-related factors, while controlling for types of ownership, that are predicted to influence home health client's quality of life?

**Ha1.** There are work-related factors, while controlling for types of ownership, that are predicted to influence home health client's quality of life?

**Analysis Techniques**

I conducted a binary logistic regression model using the software SPSS to answer my research questions. This statistical tool helped to determine if the work-related factors such as providing professional care, educate clients on medication management, pain, and safety, and lastly, having strong communication and social skills are predictors to Home Health Clients rating their lives as having quality. There was statistical test that was utilized to test the hypothesis is this study. One test is the Hosmer-lemeshow goodness of-fit-test. The Hosmer-Lemeshow goodness of fit test is based on dividing the entire sample up that is done according to their predicted probabilities or their risk (Bartlett, 2014). This helped to determine if the model is correctly fitted and showed if the model could be approved upon. Two hypotheses can be measured using this test (null and alternative). Ho: The model cannot be approved upon because it is correctly fitted. Ha: The model can be approved upon. Looking at the significance value helped me to determine whether to reject the null or alternative hypothesis thus giving clarification of

the fit of this test. The Nagelkerke R Square is also a goodness-of-fit test that can help to show an approved goodness of fit. The goal here is to have a high value as the data reaches 1.

**Rational for Covariates**

The inclusion of home health aides work-related performances such as providing level of professionalism while providing services in the homes of clients, having adequate communication/ social skills while providing services to home health clients, educating clients about medication management, ways of managing pain, and knowledge about safety in the home is all predicted to have an influential role on home health client's quality of life. These variables are not new in the world of home health, but its significance to improving quality of care has been understudied. This study explored these variables influences on Quality of life for home health clients thus giving answers to the research question proposed.

**Interpretation of Results**

The results of this study were interpreted by using the odds ratio with confidence intervals levels of 95%. The Hosmer-lemeshow goodness-of-fit test was analyzed and interpreted. To interpret the probability values, the Chi-square results was analyzed and interpreted. This analysis will permit the evaluation of the odds ratio of the membership in one of the two outcome groups that was based on the combination of all the predictor variable values. When evaluating and interpreting the logistic regression model, it included the overall model evaluation as well as a classification table that will show the percentage of correction predictions. To test the overall model significance, the $\chi^2$

omnibus test of model coefficients was examined. The Nagelkerke $R^2$ was examined to assess the overall percent of variance that were accounted for by all the independent variables. Then the predicted probabilities of events occurring was determined and assessed by Exp (β).

## Threats to Validity

Addressing threats to validity is important in the development of a research study. Understanding the various factors that could pose threats can help with making sure that the project is authentic. The HHCAHPS Survey contains a very detail and comprehensive datasets that was designed to answer different variations of questions that others may aim to measure through different research questions. The dataset has the following limitations: (a) The HHCAHPS Survey is subjected to maturation, reactive effects of experimental arrangements, and history.

### Threats to External Validity

Threats to external validity is a factor that compromise the researcher's confidence in stating whether the study's findings or results are applicable to other groups (Michael, n.d.). It can also be divided into two subsets which are population validity and ecological validity (Michael, n.d.). In stating this, understanding all the external validity issues can help in assuring that the results of the study will be applicable and generalizable to other individuals, settings, and times. The HHCAHPS Survey may have had some external validity issues. One concern is reactive effects of experimental arrangements. Surveys were either mail out, or done via telephone with random individuals who received home health services from various states in the U.S. This threat

says that there are external validity issues due to the participants being aware that they are a part of an experiment (Michael, n.d.). If an individual is aware that they are being asked questions for research purposes, then the answers may be done with biases. This issue has been addressed by CMS by conducting a Mode Experiment in the year of 2009 that was done to test the effect on survey responses within the three collection modes: Mail only, telephone only, and mixed mode (mail with telephone follow-up for those who did not response to mailed surveys; CMS, 2018). The CMS used the data from this experiment to determine if, and to what extent, characteristics of the patients surveyed statistically affected survey results. After this, statistical models were developed to control or adjust for all the patient's characteristics identified once the results were reported for the public (CMS, 2018). Lastly, the data from this experiment were analyzed to detect potential non-response bias and the results determined whether applicable non-response statistical adjustment needed to me made on the actual HHCAHPS Survey data (CMS, 2018).

**Threats to Internal Validity**

Threats to internal validity is a factor that compromise the confident of the researcher in saying that a relationship exists between the variables (independent and dependent) when it may not (Michael, n.d.). The HHCAHPS Survey could have potential internal validity problems such as maturation. The recipients of this survey were home health clients who received services from home health agencies across the U.S. There could have been moments where towards the end of the survey, the participants started to become fatigue due to the vast number of questions needed to be answered. In instances

like this, the results may not be as accurate thus showing no relationship between the variables in your research design. History could also play a role in validity of the instrument. Some unexpected event could have occurred during the administering of the instruments, causing a potential effect on the dependent variable. For example, the participant could have become upset or angry due to difficulty understanding a question, and as a result, choosing any answer based off their understanding of the question being asked. There could also be some unanticipated sickness that take place with home health patients/clients, so results may be influenced in a negative way.

To address these concerns, CMS granted Home Health Agencies the ability to inform patients during the next scheduled assessment that they may be asked to respond to a patient experience survey. This was the only approval given to home health agencies prior to surveys being mailed out. CMS did this to ensure that no bias take place in the data collection. The home health agencies were given specific "not to do" stipulations to ensure authenticity. CMS believe that any communication or information given to home health clients prior to taking the survey may introduce bias to the survey. Another way to address the issues of maturation was CMS creating and giving a simplified version of the survey for those individuals who may struggle with content.

**Construct Validity**

Construct validity in the HHCAHPS Survey is not as critical as the other sources of validity. The one area of concern was the content of the data measuring quality of care, but the instrument developers made sure to capture different areas of care in the collection process. There could have been an issue of Mono-Method bias, but this survey

has been designed very closely to getting a comprehensive scope of care administered by home health services. The developers went as far as making sure that other areas of service where included in the survey such as assessing not only care received from home health aides, but from other team members such as nurses, Physical Therapist, etc. Thus, making this assessment generalizable to other individuals, times, and settings.

## Ethical Procedures

This study will become an official Walden doctoral study project that required a few steps of approval. The undergoing of this study required certain permissions awarded by IRB and Walden. Home health client's data from HHCAHPS is protected by The Health Insurance Portability and Accountability Act (HIPAA). This legislation is intended to protect private medical information while improving the health care system. This information is "protected health information". HIPAA protects and applies to electronic records whether they are transmitted or stored. All the vendors had to meet requirements to be approved and had to adhere to all HIPAA requirements. All study plans were approved by the department's IRB on ethical issues. There were also approvals granted for use of the secondary data set by Walden. I had no personal affiliations with the HHCAHPS Survey therefore, no conflict of interest existed which prevented me from using this data set for my doctoral project. There were no reported ethical concerns as addressed by the data manual. Participation was voluntary, even though home health participants were randomly selected to take the survey. Secondary data usage was granted for analyzation from IRB and Walden.

## Summary

Section 2 included the applied research methodology for the secondary data that will be utilized in this research project. This data was originally collected from CMS and housed on Data.gov site for public use. In this section, there was discussion of research design, population that will be under study, sampling procedures for the study, data collection procedure, as well as the rationale for the data analysis procedures. There was also discussion of ethical concerns and consideration in the data collection as well as to preserve confidentially. The next section, Section 3 presents the results of the findings that were based off the research question.

## Section 3: Presentation of the Results and Findings

The purpose of my study was to better understand the predictors of quality of life for home health clients based on home health aides' work-related performances. Predictors of home health aides' work-related performances such as teaching clients how to take medication was examined to predict influences that may contribute to home health clients' quality of life. Section 3 includes a description of the time frame, recruitment and response rate, discrepancies of the data set, descriptive and demographic characteristics of the sample, representation of the data sample, and the results of the statistical analysis conducted in this study (binary logistic regression) on data collected from various home health agencies in the United States.

### Data Collection of Secondary Data Set

The HHCAHPS is a survey that is administered by home health agencies across the United States (HHCAHPS, n.d.). This survey was developed by The Agency for Healthcare Research and Quality's CAHPS program (HHCAHPS, n.d.). This survey measures patient/client experience with home health agencies and home health aides, producing the following measures of the patient's overall experience with home health services from home health aides: care of patients, communication between providers and patients, specific care issues, and ratings of care provided by the agencies (HHCAHPS, n.d.). The HHCAHPS was first implemented as a voluntary survey in 2009, but then this survey became part of a required quality reporting assessment for home health annual payment update (HHCAHPS, n.d.). This survey comes in several languages that include English, Spanish, Simplified Chinese, Traditional Chinese, Russian, and Vietnamese

(HHCAHPS, n.d.). The survey results are place on the Medicare.gov website for public viewing.

**Time Frame and Response Rate**

The data collection from the survey occurred from January 2017 to December 2017 (CMS, 2018). During this time frame surveys were mailed out to home health clients from agencies across the United States. For those who did not response within a set amount of time, home health recipients were called with the option of a phone survey. To receive HHCAHPS star ratings (which is the overall rating of care), the home health agencies must have a response rate of at least 40 completed surveys or that agency will not be considered for star ratings. Home health agencies with fewer than 40 completed surveys did not receive star ratings, but their individual scores were displayed in the public data results (CMS, 2018). In this timeframe, there was a 100% response rate of 11,623 surveys that were collected by both mailed and telephone surveys (CMS, 2018). Among the surveys that were returned during the collection period, 28% were completed mail surveys, 27% were completed phone surveys, 35% were completed mixed surveys (phone and mail), and the other 10% accounted for surveys that were returned blanked or half filled out (CMS, 2018).

**Discrepancies in the Data Set**

The HHCAHPS dataset did not have any discrepancies that would have a significant impact in my study, and there were no missing data noted. The dataset identified the location of home health agencies and listed services provided within the

agencies, which made it easy to do a random sample on the home health clients who received services from home health aides.

**Descriptive and Demographic Characteristics**

In this analysis, the target group was 65 years and older adults who received home health services. The dataset was composed of 11,623 individuals who receive home health services from home health agencies. Frequencies results of HHA's services are shown in Figure 2. For the sample, the focus was on home health clients who received services from home health aides. There were 11,005 home health agencies that offered home health aides services, which composed of 95% of the sample population. For the purpose of this analysis, the only participants analyzed where those who received care from home health aides.

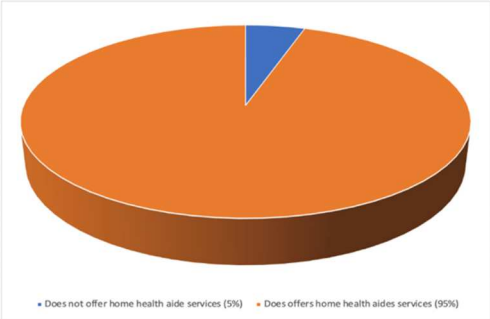


*Figure 2.* Frequencies of agencies who provided home health aide services

**Representativeness of the Sample**

The HHCAHPS survey includes 34 questions focused on home health aides' ability to provide satisfying services to home health clients. The developers of this survey believed that the ratings from this survey would stimulate improvements in the quality of care delivered by home health aides as well as incentives to help improve home health

aides' quality (CMS, 2018). To maintain representativeness, the Data.gov catalog is updated each night, which gives more of an accurate census for the home health population (HHCAHPS, n.d.). HHCAHPS also updates on an ongoing basis to account for new agencies within the United States as well as those who no longer provide home services (HHCAHPS, n.d.). This is done as to ensure that the data sample accurately represents the home health population versus having unrelated data in the sample that can falsely represent authentic home health agencies data.

## Study Results

In this study, home health aides work-related performances were explored as potential predictors to home heath client's quality of life. Table 2 shows descriptive statistics that characterize the sample in this study (Home health client's rating of services received from Home health aides work-related performances).

Table 2

*Home Health Aide Ratings*

| | Frequencies | Percent |
|---|---|---|
| Client education | | |
| Low ratings | 472 | 4.1 |
| Mid ratings | 1,845 | 15.9 |
| High ratings | 3,314 | 28.5 |
| Psychosocial skills | | |
| Low ratings | 153 | 1.3 |
| Mid ratings | 1,187 | 10.2 |
| High ratings | 4,291 | 36.9 |
| Professional care | | |
| Low ratings | 172 | 1.5 |
| Mid ratings | 2,575 | 22.2 |
| High ratings | 2,884 | 24.8 |
| Total | 5,631 | 48.4 |

*Note.* Total is the same for each rated skill.

**Research Question**

The RQ asked the following: To what extent are the predicted work-related factors (teaching clients how to take medications, educating on safety, etc.) of home health aides, while controlling for types of ownership, predicted to influence home health client's quality of life?

**Statistical assumptions.** I analyzed data for RQ using a binary logistic regression model. The three statistical assumptions of the binary logistic regression include (a) The outcome must be discrete/ dichotomous in nature, (b) There should be no outliers in the data, (c) There should be no high intercorrelations that exist among the predictors.

**Statistical analysis findings.** A binary logistic regression analysis was conducted to investigate to what extent are the predicted work-related factors (teaching clients how to take medications, educating on safety, etc.) of home health aides, while controlling for type of ownership predicted to influence home health client's quality of life? The outcome of interest was quality of life for home health clients. The possible predictor variables were: client education on medication management, pain, and home safety; psychosocial skills; and professional care work-related performances of home health aides. The Hosmer-Lemeshow goodness-of-fit was not significant ($p > .05$) indicating that the model is correctly specified and fitted. Additionally, the -2 log likelihood =225.091 and the Nagelkerke R squared = .570 which show the proportion of variance explained by the predictors in the study. The model resulted the independent variables were all significant ($p < .05$). This provides evidence as to these work-related performances of home health aides, once performed, showing predictions to home health

clients receiving quality of life. Controlling for ownership type, the predictor variables (client education on medication management, pain, and home safety; psychosocial skills, and professional care) in the logistic regression analysis were found to contribute to the model. In other words, incorporating these independent variables as recommended work-related performances for home health aides is predicted to contribute to home health clients receiving quality of life. For the predictor client education on medication management, pain, and home safety, the unstandardized B = .893, SE = .269, Wald= .11.058, $p < .001$. For the predictor psychosocial skills, the unstandardized B= 1.430, SE= .340, Wald= 17.731, $p < .000$. For the predictor professional care, the unstandardized B= 2.957, SE= .740, Wald= 15.968, $p < .000$. The constant B=-5.314, SE=.844,Wald 39.606, $p<.000$.

The estimated odd ratio favored a positive relationship of nearly 44.3% increase for client education on medication management, pain, and home safety work-related predictor Exp (B)=2.443, 95% CI (1.443, 4.136) for every unit increase of home health clients receiving quality of care because of this work-related factor of home health aides. In other words, quality of care for home health clients are predicted to increase by one unit each time a home health aide provides work-related performances related to educating, teaching about medication and pain safety to home health clients. The estimated odd ratio favored a positive relationship of nearly 17.8% increase for PsySocSkills work-related predictor Exp (B)=4.178, 95% CI (2.148, 8.129) for every unit increase of home health clients receiving quality of care because of this work-related factor of home health aides. In other words, quality of care for home health clients are

predicted to increase by one unit each time a home health aide provides work-related performances related to psychosocial skills to home health clients.

The estimated odd ratio favored a positive relationship of nearly 23.5% increase for professional care work-related predictor Exp (B)=19.235, 95% CI (4.5111, 82,022) for every unit increase of home health clients receiving quality of care because of this work-related factor of home health aides. In other words, quality of care for home health clients are predicted to increase by one unit each time a home health aide provides work-related performances related to providing professionalcare to home health clients. The constant represents the intercept in the data output. It is an estimation of where the regression plane would slice through the Y axis. A negative constant simply means that the baseline porportion of the sample was low.

From SPSS analyzing independent and dependent variables, omnibus tests of model coefficients gave a chi-square of 179.169 with df = 3 and a significance of .000. The model summary indicated a -2 log likelihood of 225.091, Cox & Snell R square of .368, and a Nagelkerke R square of .570. Finally, the Hosmer and Lemeshow Test produced a chi-square results of 1.601 with df = 5 and a significance of .901. Table 3 shows the variables used in the SPSS analysis.

Table 3

*Variables in Equation*

| | B | S.E. | Wald. | Df | Sig. | Exp(B) | Lower | Upper |
|---|---|---|---|---|---|---|---|---|
| Client education | .893 | .269 | 11.058 | 1 | .001 | 2.443 | 1.443 | 4.136 |
| Psychosocial skills | 1.430 | .340 | 17.731 | 1 | .000 | 4.178 | 2.148 | 8.129 |
| Professional care | 2.957 | .740 | 15.968 | 1 | .000 | 19.325 | 4.511 | 82.022 |
| Constant | -5.314 | .844 | 39.606 | 1 | .000 | .005 | | |

**Statistical significance.** Before the analysis was conducted, block 0 in SPSS data output indicated that the model was at 79%. After including the variables in this study, the model was approved upon at a percentage of 87% therefore rejecting the null that this model could not be approved upon. This new model shows that work-related performances such as educating clients about medication, pain and safety, utilizing psychosocial skills, and providing professionalcare has influences on home health clients receiving quality of life with psychosocial skills having the highest rating of contributing to quality. In stating this, there is evidence to reject the null hypothesis which states that these work-related performances do not influence home health client's quality of life when influences do exist.

## Summary

Section 3 presented all the results and findings of the study. In section 4, there will be more detailed analysis and interpretation of all the findings in this current doctoral study. The RQ was answered through analyzing the variables in the binary logistic regression model. The study showed that home health aides work-related performances such as educating clients on medication care procedures and protocol, educating client's on managing pain (learning different ways to relieve pain such as proper exercising, etc.), educating client's on safety techniques (ways to prevent falls in the home, etc.), increasing psychosocial skills (how to communicate with clients, etc.), and lastly, providing professional care (professional behavior, providing professional interventions in the home), had a significant impact on home health client's quality of life.

PsySocSkills had the highest ratings of quality among all the independent variables in the study at 76%. Professional care had the least among of ratings of quality even though this independent variable as well as the others in the study had a significant influence on quality for home health clients. Section 4 will give an overview of the interpretations of the findings, the limitations of the study, recommendations, implications for professional practice and social change, and study conclusions.

## Section 4: Application to Professional Practice and Implications for Social Change

In Section 3, I provided a discussion on the purpose of the study and data analysis. The purpose of my study was to get a better understanding of the predictor variables of home health aides; the extent of these influences was considered when analyzing the variables from my study. My study was quantitative cross-sectional in nature, and I used a binary logistic regression model to analyze the data.

There were several findings in the analysis for my research project. The Hosmer-Lemeshow goodness-of-fit test showed nonsignificance, which gives evidence to the model being correctly fitted. The Nagelkerke R squared was also nonsignificant, which shows varations in the predictor variables. The independent variables in the study client education on medication management, pain, and home safety ($p < .001$), psychosocial skills ($p < .000$), and professional care ($p < .000$) were found to be significant as well as positively contributing to the model. The estimated odd ratio favored a positive relationship of nearly 44% increase for client education on medication management, pain, and home safety for every unit increase of home health clients receiving quality care, a nearly 18% increase for psychosocial skills, and a nearly 25% increase for professional care. Lastly, after including the variables in this model, the model was approved upon at an 87% rate compared to the null model at 79%. These findings show that home health aides' work-related performance such as teaching clients about medication/pain safety, having or using psychosocial skills, and providing professional care all have a significant role in home health clients rating of quality.

## Interpretations of the Findings

My analysis of HHCAHPS data indicated significant influences of home health aides' work-related performances on home health clients' quality of life. In the following section, the research findings will be compared with previous literature as well as the socioecological model.

### Findings

The literature findings confirmed that educating home health clients about medications, pain, and safety is an important work-related performance to achieve. Researchers have stated that more research is needed on safety factors (Quinn et al., 2016). The findings in my study showed that educating and promoting home health clients on home safety was significant at *(p* < .001). This confirms that work-related performances of home health aides such as educating on safety is an important predictor in home health clients receiving quality of life. Researchers have also discussed medication safety as well as education around medication administration (Marck et al., 2010). Researchers have referred to this problem as a global phenomenon that needed to be addressed (Marck et al., 2010). The results of my study showed that education around medication safety is an important predictor to home health clients' quality of life, which confirms previous research.

Researcher have also discussed the role of health literacy among home health aides and home health clients. Researchers have found a lack of studies supporting the need for trainings around health literacy (e.g., medication safety) to have equal importance as trainings aimed at nursing or more skilled care curriculum (Davis & Smith,

2013). Researchers have also stated that incorporating health literacy among home health aides should be a goal of home health agencies quality improvement plans that can strengthen home health practices. The findings from my study extended knowledge to the fact that an increase in health literacy such as educating on medication, safety, and pain management is a significant predictor to increasing home health clients' quality of life, which confirms previous research.

Regarding psychosocial skills, the literature review indicated that home health aides' perception of respect for their quality of work from their leaders, supervisors, and administrators are key in-home health aides remaining in their role as caregivers (Davis & Smith, 2013). The findings from my study showed that psychosocial skills were significant predictors to home health clients' quality of life ($p < .000$), confirming previous findings that suggested the way aides think about respect for their leads could affect their ability to prove great care. Thus, the services that home health aides provide can lead to better quality for home health aides.

Additionally, research has suggested that social factors are a major determinate of well-being for the elderly population as well as others (Rowe, Fulmer, & Fried, 2016). Similar studies have revealed that psychological difficulties of home health work are a widely-recognized phenomenon and has a high prevalence for home health aides' ability to provide quality care (Doniol-Shaw & Lada, 2011). This is supported by my study's findings that psychosocial skills have the highest predictor prevalence out of all the other variables to influence quality for home health clients. My study showed that out of the total sample of home health clients, 4,231 rated psychosocial skills as the most important

work-related factor of home health aides that contributes to their quality of life. Researchers have also found that home health aides not only provide emotional support to the clients but family members as well (Riesenbeck et al., 2015). This factor is the less thought of work-related factor even though it has the strongest impact on quality of life (Leung & Famakin, 2017). Similar studies have proposed the same predicted factors to influence quality following physical well-being (Escuder-Mollen et al., 2014).

Another aspect of home health aide work-related performance explored in the literature was home health aides' professional care. Researchers have found that this work-related factor can also influence quality of life. Aides have reported that they always go above and beyond to provide high quality professional services, feeling that any additional physical or related task were a part of their job duties and did not view the extra responsibilities as extra work (Franzosa et al., 2018). These additional physical or related task filled important gaps in caring for this population and if not done would compromise their clients' quality of life (Franzosa et al., 2018). Findings from my study confirm that professional skills are another work-related factor that is a significant predictor to quality for home health clients ($p < .000$).

**Socioecological Model Theoretical Framework**

The findings in my study showed that all the independent variables (client education on medication management, pain, and home safety; psychosocial skills, and professional care) were significant in showing predictions of quality of life for home health clients, with psychosocial work-related performances having the highest rate of predicting quality of life. The social ecological model is outline in the Figure 3. When

exploring these findings through this model, home health client may have been affected differently by each factor in their lives when rating the survey given by their home health agencies.

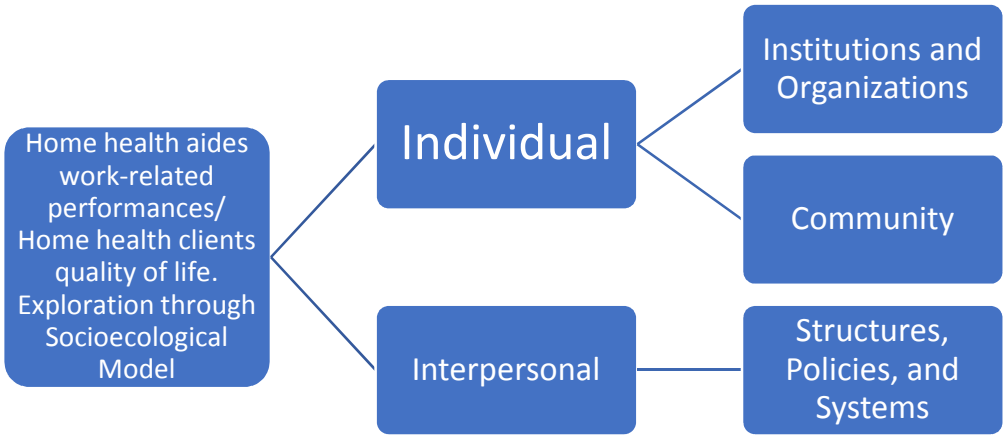


*Figure 3.* Diagram of socioecological model.

**Individual.** Quality is a decision that only the individual can assess; the home health recipient must be the one who can truly state whether they received quality because of services from home health aides. For example, educating clients on taking medication properly, home safety, and pain management can be influenced different depending on different socioecological levels. The home health clients who participated in this survey may have seen education from home health aide as an important value to them, making this factor important for them obtaining quality.

**Interpersonal.** The role of family, peers, and neighbors are all interpersonal aspects of the socioecological model. Home health aides' ability to provide great services to home health clients can be influenced by all these factors, thus influencing the way home health clients rate their quality of life. The findings show that home health clients'

ability to rate their lives as having quality depended on how home health aides let these factors influence their ability to perform. The clients responding to this survey may have viewed the work-related performances of the home health aides supportive and may have received positive feedback from friends and family about their observation of the home health aides' performances.

**Organizational.** Quality of life is a process that involves more than home health aides. There are other stakeholders who have a role in home health services being provided. Home health clients who received care from the home health aides who participated in the survey resulted in having predicted quality. This predicted quality can be the result from home health agencies understanding the components that constitutes good quality. The ho me health clients may feel that the aide performance was based off the agencies guidelines or procedures and their mission to educate was genuine due to the agency repetition in the community

**Community.** Home health agencies may have different ways to promote quality depending on geographical locations and other community factors. Simple things such as having a safe place to walk for exercise, social cultural norms, health-related norms can all contribute to how a person view their quality of life. Results show that home health aides work-related performance of teaching safety skills can be predicted to increase quality for home heath clients thus making the community influences apparent. There also could have been some socioeconomic factors that contributed to their rating scores such as the home health aides educational level playing a role in the home health clients

believing that education on medication, safety, and pain management was needed for them to have quality.

**Policy.** Home health agencies all have different policies and procedures that are utilized with the goal of provided excellent services to home health recipients. The results of this study can further expand on these policies, informing new ideas that can lead to quality and even a more standardized standard of care for home health practices. The home health clients could have also based their scores on the agency ability to hire qualified home health aides resulting from their policies and procedures around requirements for home health aides.

## Limitations of the Study

Although the intent of my study was achieved, there were still some unavoidable limitations in this study. In using the socioecological theoretical model to break down influences of behaviors, other health influences could have influenced the survey scoring based off different health behaviors of home health clients. Second, the deliver method could have affected the results because phone surveys are more instant and paper surveys can be more analyzed before an answer is given. This could have affected the ratings.

## Recommendations

There are several recommendations that might paved the way for more research findings around home health aides work-related performances and quality of life for home health clients. First, this study needs to be built upon to include geographical factors and/or other health influences using the socioecological model theoretical framework to obtain additional predictors to home health clients receiving quality of care.

This future study can build upon this study as to identify other influences that can be predicted to influence quality for this population. Second, it is suggested that future research should also focus on a qualitative design utilizing the same variables where focus groups can be arranged with the goal of better controlling the testing environment to eliminate any potential discrepancies in the data. There should also be other quantitative studies that focus on correlations between home health aides and home care aides. This study should aim to better understand the relationship between home health clients receiving quality from skilled services (home health aides) and unskilled services (home care aides).

## Implications for Professional Practice and Social Change

The findings in this study have implications for how home health agencies should be structured as it relates to policies and procedures for preparing home health aides to perform excellent work-related performances that are catered to increasing quality for home health clients. The findings also imply that home health client's quality of life, is predicted to be heavily influenced by home health aide's ability to educate, provide professional care, and their ability to target home health client's psychological as well and social needs. The findings also suggest the need for future research on this topic which should be aim towards investigating more of the work-related performances of home health aides to find other predictors of quality, while controlling extraneous variables that could affect the study results. These factors could contribute to better and stronger home health practices.

The methodology analysis can be improved upon by controlling for other variables that may have an influence on home health clients rating their lives as having quality resulting from services provided by home health aides. Other statistical approaches could be useful in finding correlations between the variables as well as obtain descriptive data concerning home health clients journey to obtaining quality of life. In this study, I only controlled for ownership types, when other factors could have been controlled for such as geographical location by regions in the U.S. This could have potentially given more insight into how quality differ among regions.

There is other theoretical framework that could have been used to explore home health aides work-related performances on home health client's quality of life. It is suggested that the theory of reasoned action (TRA) and the theory of planned behavior (TPB) be explored with the methodology used in this study or for future studies involving the same population. This model focus on theoretical constructs that are concerned with the individuals overall motivational factors as determinants of the chances that a specific behavior will be performed (Glanz, Rimer, & Viswanath, 2015).

**Positive Social Change**

The findings from this study helps to promote social change by providing valuable information as a resource to potentially informing policies and procedures and building stronger home health practices among home health agencies. The aim is to use these results as insight to different training ideas for home health aides as to strengthen their ability to provide quality care for home health clients. These results can predict what home heath clients across the U.S. may see as an important factor in them viewing their

lives as having quality post services from home health aides. At the individual level, home health aides may not be aware of what needs to be done to promote or build quality for clients thus making the need for training around these performances more apparent. At the family level, these predicted significant work-related performances of home health aides may also benefit the identified client's family, which could ultimately help reinforce these skills when aides are not preforming services in the homes. At the organizational level, these findings can help build team work with all stakeholders involved with the home health clients care and could potentially build better training programs within agencies. At the societal/policy level, these findings could help create stronger policies around care for home health clients and can help home health clients to live more satisfying lives which could increase their ability to be more contributing to society.

## Conclusion

This study reports findings from a binary logistic regression model where the independent variables were work-related performances of home health aides (client education on medication management, pain, and home safety; psychosocial skills; and professional care) on the depdendent variable (quality of life for home health clients). We can see from this study that the work-related performances of home health aides targeted in this study was shown to have a predicted influence on home health client's quality of life, therefore rejecting the null that none of the work-related performances will predict quality for home health clients. The elderly population is living longer and because of this longer life expectancy, the need for better interventions to health is needed and

warranted. By the year 2050, it is projected that the overall number of individuals 65 years and older will climb from 43,000,000 to 83,000,000 (“Senior Care,” 2018). This is evidence as to why research on this population is so timely and so needed for the greater good of home health recipients. With this growing demand, the need for more health services such as home health agencies will be favorable. Knowing this information makes the results of this study a valuable resource to utilize. Providing great care is under defined and what constitute great care can be abstract. Research around quality is one piece of the puzzle in the quest of better defining a standardized plan of care for this population. With this standard of care comes stronger policies and procedures, that will potentially lead to strong home health practices.

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