A Dissertation

entitled

Using the Self-Determination Theory to Understand Factors Influencing STNAs' Intent to Stay in Their Positions at For –Profit Skilled Nursing Facilities

by

Megan E. Benner Senecal

Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Doctor of Philosophy Degree in Health Education

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an Abstract of

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Background. Over one million Americans utilize skilled nursing facilities (SNFs) annually. State Tested Nursing Assistants (STNAs) are the direct care workers within these facilities. Low retention and high turnover among STNAs threatens care provision and facility functioning. Factors influencing retention and turnover are distinct, however, a model representing STNAs' intent to stay in their positions does not exist.

Purpose. The purpose of the research was to develop and preliminarily test a new conceptual framework that represents intrinsic factors thought to affect STNAs' intent to stay in their positions at for-profit skilled nursing facilities.

Design. This research was conducted in two phases. **Phase I** was qualitative and included interviewing State Tested Nursing Assistants (STNAs) to explore their workplace experiences in order to identify salient factors affecting their intent to stay in their position. **Phase II** was quantitative and consisted of model refinement and testing in order to identify a model that best predicted STNAs intent to stay their positions at for-profit SNFs.

Methods. **Phase I**. Ten STNAs employed at for-profit SNFs in the midwestern United States participated in individual face-to-face interviews. A semi-structured interview guide covered three domains: basic psychological needs; physical and psychosocial well being; and organizational factors. Interview transcripts were analyzed and coded by the research team to identify broad concepts, recurrent themes, and illustrative quotes within themes. In the final stage, the coding framework was applied to all data. In **Phase II** of the research, a random sample of (n=7150) STNAs were recruited from the Ohio Nurse Aide Registry via a postcard. Participants completed an 88 item online questionnaire. Measures included: Basic Psychological Needs at Work Scale (Baard, Deci, & Ryan, 2001), Rosenberg Self-Esteem Scale (Rosenberg et al., 1965), Affective Commitment Scale (Allen & Meyer, 1990), Organizational Citizenship Behavior Checklist (Robinson & Morrison, 1995), and a measure of Intent to Stay (Price & Kim, 1995). Data were analyzed using SPSS.

Results. Qualitative findings revealed four themes supporting STNAs intent to stay and four themes threating intent to stay. Data analysis revealed psychosocial stressors, basic psychological needs, health and well-being, and organizational factors to be salient contributors to STNA intent to stay and were incorporated into the finalized conceptual model and survey for **Phase II**. In **Phase II** analyses of the total scores from each measure indicate moderate levels of basic psychological need fulfillment and low levels of organizational citizenship behavior, affective commitment, self-esteem, and intent to stay. Simple Linear Regression and Multiple Linear Regression revealed that autonomy was the single statistically significant predictor of intent to stay among STNAs in this study (β=.200 p-value =.028). Independently, autonomy (β=.234, p-value =.001) and the

number of anxious days (β=-.165, p-value=.039) were statistically significant predictors of intent to stay among the respondents, with competence indicating a borderline statistically significant relationship (β=.174, p-value=.054) with intent to stay. There was also a statistically significant relationship between STNAs' reported Affective Commitment to their place of work and their engagement in Organizational Citizenship Behavior (β=.579, p-value=.001).

Conclusion. The findings from both phases indicate a need for responsive strategies at the facility level to address and reduce contributors to psychosocial stress among STNAs. Further, results indicate that facilities should provide opportunities for relationship development among STNAs and other staff. The results of Phase II also suggest a continued need for STNAs to feel empowered at work. The cultivation of an increased sense of autonomy may increase overall basic psychological need fulfillment and intent to stay.

Impact Statement. This research provides insight into the factors that influence STNA intention to stay. The results can be applied to the development of responsive and effective strategies to increase retention behavior among this integral direct care staff. The results also contribute to the body of literature on the workplace experiences of STNAs and provide a unique perspective by examining STNAs at specifically for-profit facilities.

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List of Abbreviations

ADL ..... Activity of Daily Living

BPN..... Basic Psychological Needs

LTC..... Long-Term Care

OCB ..... Organizational Citizenship Behavior

ODH..... Ohio Department of Health

SDT ..... Self –Determination Theory

SNF ..... Skilled Nursing Facilities

STNA ..... State Tested Nursing Assistant

Chapter One

Overview

Aging Population.

In the United States, there has been a 25-year increase in life expectancy and by the year 2030 it is estimated that nearly one in every five Americans will be over the age of 65 (Borsch-Supan, Hank, & Jurges, 2005; HelpAge International, 2014). Medical advances combined with low fertility rates are the primary drivers of the growth of the aging population (Borsch-Supan, Hank, & Jurges, 2005; Jacobzone, 2000; Powell, 2010). With the increase in the 65 and older segment of the population, there is an increased necessity for Long-Term Care (LTC) services. Every year, over eight million people receive supportive LTC services from home health, residential care communities, adult day services, hospices, or nursing homes (Centers for Disease Control and Prevention [CDC] Long-term care statistics, 2013: Family Caregiver Alliance, 2013).

Long-term care. Initiatives to address the growing 65 and older population in the United States have included an emphasis on aging in place and enabling older adults to age within their communities. In an effort to limit the use and need for institutionalization, individuals are encouraged to stay in their homes and utilize home care or assisted living communities as they age (Administration on Aging, 2013; CDC, 2013; Centers for Medicare and Medicaid Services [CMS], 2015; Family Caregiver Alliance, 2013). However, with increased age, comes increased probability of disability. The ability to stay out of institutions is inhibited when older adults begin to need increased assistance with activities of daily living (ADLs) such as dressing, bathing, eating, and transfers; or when they experience disability or increased cognitive

impairment (Administration on Aging [AOA], 2013). The lifetime probability of becoming disabled in at least two activities of daily living, or of being cognitively impaired, is 68 percent for people age 65 and older (AOA, 2013).

Unfortunately, the individuals who exhibit moderate to severe cognitive impairment, or who need increasingly more assistance with ADLs, are often discharged from assisted living facilities due the level of care that they require and lack of available services and support staff within their living environment (CMS, 2015; Congressional Budget Office, 2015; Hawes & Phillips, 1999). The inability of residential communities, assisted living facilities, or families to facilitate older adult independence in the face of memory issues and increased ADL assistance has necessitated some to find care in skilled nursing facilities (SNFs) (Medicare regulated facilities). As a result, over one million older adults utilize SNFs, with 13 percent of individuals 85 and older relying on skilled nursing for their care (Congressional Budget Office, 2015).

Skilled nursing direct care workforce. Despite an emphasis on enabling older adults to age in place, extenuating circumstances of illness, injury, or disability inhibit the ability for some older adults to stay in their homes or communities increasing reliance on skilled nursing care (CMS, 2015; Donoghue & Castle, 2007; Thomas, Mor, Tyler, & Hyer, 2012). Direct care workers, such as nursing assistants or State Tested Nursing Assistants (STNAs), are the primary providers of paid, hands-on care for more than 13 million elderly and disabled Americans (AOA, 2013). There are an estimated 1,492,100 STNAs in the United States, and they make up nearly 72% of the direct care workforce in skilled nursing facilities (Bureau of Labor Statistics, U.S. Department of Labor, 2016; Tak et al., 2010). Over 40 percent of STNAs are employed in skilled nursing facilities

and it is anticipated that the need for nursing assistants will see a nearly 21 percent increase by the year 2030 (Bureau of Labor Statistics, U.S. Department of Labor, 2014). State Tested Nursing Assistants' role in enhancing the lives of others is vital. The STNA workforce is responsible for providing direct patient care that includes assistance with taking medications, dressing, bathing, mobility, and clinical care needs such as taking vitals or turning patients to avoid skin breakdown (Bureau of Labor Statistics, U.S. Department of Labor, 2014; Thomas et al., 2012).

Impact and Cost of Staff Inconsistency.

Accompanying the growing demand for nursing assistants or STNAs are issues of staffing inconsistency such as high turnover and/or low retention. The average annual turnover rate for STNAs in skilled nursing facilities can fluctuate anywhere from 45% to 100% (Brown, Redfern, Bressler, Swicegood, & Molnar, 2014; Decker , Harris-Kojetin, & Bercovitz., 2009). The high rates of turnover amount to nearly $4 billion in related direct and indirect costs annually, with costs of $500-$1000 per instance of STNA turnover incurred by the facility. The costs to skilled nursing facilities are due to additional training, hiring, benefits, and seeking out contingent employment to supplement the STNA staff (Brown et al., 2014; Rubin, Balaji, & Barcikowski, 2009). Low retention and high turnover negatively impact skilled nursing facilities on an organizational level by impairing functionality, inhibiting culture change, and increasing economic burden (Brown et al., 2014; Decker et al., 2009).

Non-profit skilled nursing facilities have declined in number by approximately seven percent between 2008 and 2012, while the for-profit facilities have increased by

roughly two percent over the same period. Recent estimates suggest that approximately 69% (10,913) of all skilled nursing facilities (15,460) in the United States operate under the for-profit structure (CMS, 2015). Research indicates that for-profit status of skilled nursing facilities compounds issues of staff inconsistency, in part due to unsupportive workplace cultures and poor wage and benefit offerings (Castle et al., 2007; Decker et al., 2009; Ejaz , Noelker, Menne & Bagaka, 2008; Mittal, Rosen, & Leana, 2009). For-profit facilities not only see higher turnover and lower retention of STNAs when compared to not-for-profit facilities, but the rates of turnover are higher among the STNAs *within* these facilities when compared to all other staff (Castle et al., 2007; Decker et al., 2009; Mittal et al., 2009).

Nursing Assistant Health Disparities.

State Tested Nursing Assistants are more likely to be single-parent, low income individuals who must often seek additional employment to supplement their low wages and limited benefit offerings (Brown et al., 2014; Castle et al., 2007; Decker et al., 2009; Mawn, et al., 2010; Mittal et al., 2009; Tak, Alterman, Baron, & Calvert, 2010). These workers often have a lower socioeconomic status, are at increased risk of poverty, have poorer general health, and are at higher risk for negative health outcomes related to their work (Bureau of Labor Statistics, U.S. Department of Labor, 2016; Ejaz et al.,2008). Multiple research studies have also identified increased instances of poor mental, physical, and emotional health among STNAs (Ejaz et al., 2008; Liang, Hsieh, Lin, and Chen,2014; Mawn et al., 2010; Tak et al., 2010; Zhang, Punnett, Gore, CPH-NEW Research Team, 2014; Zhang, Punnett, and Nannini, 2016).

Theory.

The Self- Determination Theory (SDT) is a motivational theory that seeks to understand the interplay among factors that influence individuals' intrinsic fulfillment and the impact on health and well-being. The SDT has been previously used in health behavior research and was applied in this research to provide foundational explanations of the impact intrinsic fulfillment on the health, well-being, and intent to stay in their positions among STNAs (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016).

Some research suggests that extrinsic factors are the primary factors that dictate staff turnover. Extrinsic factors influencing turnover include lack of monetary fulfillment and limited benefit provision and tangible rewards (Brown et al., 2014; Castle et al., 2007; Decker et al., 2009; Mawn, et al., 2010; Mittal et al., 2009). Conversely, the retention of nursing staff has been linked causally to intrinsic factors, or internal fulfillment, which is often derived from experienced enjoyment in caregiving (Gray, Shadden, Henry, DiBrezzo, Ferguson, & Fort, 2016; Mittal et al., 2009).

Research suggests that enabling nursing assistants to experience intrinsic satisfaction can serve as a foundation for organizational commitment and facilitate STNAs intention to stay (Gagne et al., 2008). Further, intrinsic fulfillment has been linked to improved health outcomes such as decreased psychosocial stress and better mental health (Deci et al., 2001; Gagne & Deci, 2005; Gagne et al., 2008; Patrick, Knee, Canevello, & Lonsbary 2007; Ng et al., 2016; Ryan et al., 2008). In addition to the importance of intrinsic factors in the context of organizational commitment, experiences of positive mental health are also associated with decreased intention to leave one's position (Zhang et al., 2016). Stabilization of the workforce and organizational

commitment among STNAs may also have a positive relationship with resident health and care satisfaction (Brown et al., 2014; Thomas, Mor, Tyler, & Hyer, 2012; Zhang et al., 2014).

The residual effects of positive workplace environments and intrinsic satisfaction on organizational commitment and health outcomes may ultimately result in retention of STNAs and better health for both employees and patients within skilled nursing (Brown et al., 2014; Thomas et al., 2012; Zhang et al., 2014). Despite the fact that low retention and high turnover can have similar negative impacts on facilities, residents, and staff, research has suggested that the reasons for low retention and high turnover are causally distinct (Brown et al., 2014; Mittal et al., 2009). Therefore, in an effort to understand and facilitate solutions to *low retention* in skilled nursing facilities it is important to understand *why* individuals choose to stay in their work. The current research focused on *retention* through an understanding of STNA *intent to stay*. As such, this research used the SDT to investigate the impact of intrinsic factors on STNA health, well-being, and intent to stay in their positions at for-profit skilled nursing facilities.

Significance of the Study.

Experiences of disability, illness, and injury increase the need for services provided by skilled nursing facilities. Older adults who need greater assistance and care necessitate a competent and stable STNA workforce within skilled nursing facilities (CMS, 2015; Donoghue & Castle, 2007; Thomas, Mor, Tyler, & Hyer, 2012). Staff inconsistency has wide-ranging negative impacts on facilities, residents, and nursing assistants. Both high turnover and low retention are detrimental to facility functioning, nursing assistant health,

and quality and continuity of care among residents (Brown et al., 2014; Castle et al., 2007; Decker et al., 2009; Mawn, et al., 2010; Mittal et al., 2009: Thomas, Mor, Tyler, & Hyer, 2012). Further, poor retention of STNA staff can manifest in deficiency citations for the facility and in an increase in voluntary turnover for all other nursing staff (Gray et al.,2016; Mittal et al., 2009; Thomas et al., 2012). A stable nursing assistant workforce within for-profit skilled nursing facilities will enable optimal facility functioning, cohesive staff interactions, and will better serve the growing needs of the aging population (Gray et al.,2016; Mittal et al., 2009; Thomas et al., 2012).

Purpose of the Study.

The United States Department of Health and Human Services, through Healthy People 2020, identifies areas of focus and improvement in health and prevention. The purpose of the current research was to improve the scientific understanding of the experiences of STNAs in for-profit skilled nursing facilities by examining the factors that contribute to STNAs' intention to stay in their positions. The current research also addressed the Healthy People 2020 goals to "Improve the health, function, and quality of life of older adults, "Promote the health and safety of people at work through prevention and early intervention" and "Improve health-related quality of life and well-being for all individuals." (Office of Disease Prevention and Health Promotion [ODPHP], 2016).

Research Questions.

The research employed a mixed-methods approach with two phases of data collection. **Phase I** of this study was qualitative and provided a description of the factors

contributing to STNA intention to stay in their positions at for-profit skilled nursing facilities. In addition, Phase I data was used to refine the conceptual model representing STNAs' intention to stay which was tested in Phase II.

The data from **Phase I** informed the **Phase II** research questions. Supplemental research questions[1] and responsive model alterations were made based on the **Phase I** findings. The following research questions pertain to Phase II of the current research.

Q1) Do STNAs employed at for-profit skilled nursing facilities experience fulfillment of their basic psychological needs of autonomy, relatedness, and competence independently at work?

H1: STNAs experience fulfillment of the basic psychological need of autonomy at work.

Null: STNAs do not experience fulfillment of their need of autonomy at work.

H2: STNAs experience fulfillment of the basic psychological need of relatedness at work.

Null: STNAs do not experience fulfillment of their need of relatedness at work.

H3: STNAs experience fulfillment of the basic psychological need of competence at work.

Null: STNAs do not experience fulfillment of their need of competence at work.

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[1] Question 4 has been added based upon findings during Phase I of this research.

Q2) Do experiences of overall basic psychological need fulfillment at work impact the physical health and psychosocial well-being of STNAs in for-profit skilled nursing facilities?

H4: The fulfillment of the basic psychological need of autonomy at work will be associated with better physical health and psychosocial well-being.

Null: Experiences of fulfillment of the basic psychological need of autonomy at work will be unrelated to physical health and psychosocial well-being.

H5: The fulfillment of the basic psychological need of relatedness at work will be associated with better physical health and psychosocial well-being.

Null: Experiences of fulfillment of the basic psychological need of relatedness at work will be unrelated to physical health and psychosocial well-being.

H6: The fulfillment of the basic psychological need of competence at work will be associated with better physical health and psychosocial well-being.

Null: Experiences of fulfillment of the basic psychological need of competence at work will be unrelated to physical health and psychosocial well-being.

H7: Nursing assistants who experience overall basic psychological need fulfillment will identify better self-reported physical health and psychosocial well-being.

Null: Nursing assistants basic psychological need fulfillment is not related to better self-reported physical health and psychosocial well-being.

Q3) In what way does fulfillment of basic psychological needs at work influence organizational commitment of STNAs employed at for-profit skilled nursing facilities?

H8: Nursing assistants who experience fulfillment of their basic psychological need of autonomy at work will demonstrate greater affective organizational commitment.

Null: Fulfillment of autonomy at work will be unrelated to affective organizational commitment.

H9: Nursing assistants who experience fulfillment of their basic psychological need of relatedness at work will demonstrate greater affective organizational commitment.

Null: Fulfillment of relatedness at work will be unrelated to affective organizational commitment.

H10: Nursing assistants who experience fulfillment of their basic psychological need of competence at work will demonstrate greater affective organizational commitment.

Null: Fulfillment of competence at work will be unrelated to affective organizational commitment.

H11: Nursing assistants who experience fulfillment of all their basic psychological needs of autonomy, relatedness, and competence at work will demonstrate greater affective organizational commitment.

Null: Fulfillment all three basic psychological needs at work will be unrelated to affective organizational commitment.

Q4) What is the relationship between STNAs' organizational citizenship behavior and their affective commitment towards the for-profit skilled nursing facilities in which they are employed?

H12: STNAs' organizational citizenship behavior directly affects their affective organizational commitment to the for-profit skilled nursing facility in which they currently work.

Null: STNAs' organizational citizenship behavior does not affect nursing assistant organizational commitment to the for-profit skilled nursing facility in which they currently work.

Q5) What is the relationship between the identified factors that impact intention to stay among STNAs in skilled nursing facilities?

H13: There is a multilayered causal relationship between the model constructs of basic psychological needs, physical health and well-

being, organizational citizenship behavior, and affective organizational commitment that is associated with STNAs' intent to stay.

Null: There will be no identified causal relationships between model constructs that can explain nursing assistant intent to stay.

Q6) What combination of factors in the proposed model best predicts STNAs intent to stay and accounts for the most variance of STNA intent to stay within their positions at for-profit skilled nursing facilities?

H14: There is a combination of factors in the proposed model that best predicts and accounts for the most variance of STNA intent to stay in their position at for-profit skilled nursing facilities.

Null: There is no identifiable combination of factors in the proposed model that is predictive or accounts for the most variance of STNA intent to stay in their positions at for-profit skilled nursing facilities.

Definition of Terms.

Conceptual definitions.

Extrinsic Motivation- Motivation to perform or engage in a behavior to avoid punishment or receive tangible rewards such as payment or recognition (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016).

Intrinsic Motivation- Engaging in a behavior because the individual performing the behavior find it personally rewarding and enjoyable. The act of

performing activities or behaviors is its own reward (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016).

Self -Determination Theory (SDT)- Broad theoretical framework for the study of human motivation and personality. Within the SDT are a series of meta-theories that are used to explain intrinsic and extrinsic motivation in social development. Central to the SDT is the concept of basic psychological need fulfillment in support of an individual's volition, motivation, engagement, and performance (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016).

Basic Psychological Needs (BPN)- An integral construct of the Self-Determination Theory including the needs of autonomy, relatedness, and competence. Fulfillment of one's basic psychological needs facilitates healthy development, engagement in tasks, motivation, and well-being within the setting, which it is applied.

Autonomy- Is one's ability to experience "self-rule" actions that are self-initiated and self-regulated in relationship with one's goals.

Relatedness- Is a sense of belonging and feeling significant in the eyes of others, not according to position or status, or feeling connected to others.

Competence- Is the experience of mastery, challenge and engagement in the activities that may serve to broaden one's capacities or one's behavior. (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016).

Organizational Commitment- A combination of three components determining workplace commitment including affective, normative, and continuance commitment.

Affective commitment refers to commitment that is rooted in the emotional ties an employee develops to an organization. *Normative* commitment refers to commitment rooted in perceived obligation to a place of work. *Continuance* commitment refers to organizational commitment rooted in an individual's reflection on the perceived costs of leaving an organization (Allen & Meyer, 1990; Gagne et al., 2008).

Retention- The act of keeping someone or something, or the maintenance of employees. Retention can only be measured longitudinally therefore; the aim of the current research is to understand the contributors to retention behavior through the concept of *intent to stay* (Rosen et al., 2011; Trybou et al., 2014; Weiner et al., 2009).

Turnover- The act of leaving a position and movement of people out of a place of work. The percentage of workers who leave an organization and necessitate replacement by new employees (Rosen et al., 2011; Trybou et al., 2014; Weiner et al., 2009).

Operational Definitions.

Psychosocial Well-being- A state of well-being that encompasses both psychological and social aspects of one's experiences. In the case of this research, an understanding of the interplay of workplace experiences on nursing assistants on psychological and social functioning and well-being (Barile et al., 2013).

For-profit- Refers to skilled nursing facilities that operate under corporate or investor ownership (Rosen et al., 2011; Trybou et al., 2014; Weiner et al., 2009).

Skilled Nursing Facility (SNF)- The terms "skilled nursing facility" and "nursing home" are used interchangeably by the Centers for Medicare and Medicaid Services. For the purposes of this research, the term "Skilled nursing facility" will be used. The

literature may use skilled nursing facility or nursing home and the literature review will reflect the terms that the referenced authors used. Each term is acceptable as long as they are referring to a facility that is Medicare certified which is 97% of all nursing homes. Licensed healthcare facilities that are inspected by the state Department of Health. For the purposes of this research, skilled nursing facilities that offer both short and long-term care and are Medicare regulated are included in the definition of skilled nursing facilities (Centers for Disease Control and Prevention [CDC] Long term care statistics, 2013; Family Caregiver Alliance, 2013).

Intent to Stay- The motivational disposition of individuals indicating his or her feelings toward staying with their employer. For the purposes of this research, intent to stay refers to STNAs' willingness to remain with the skilled nursing facility with which they are employed. Intent to stay is provided in this research as an antecedent to actual prolonged retention of staff (Rosen et al., 2011; Trybou et al., 2014; Weiner et al., 2009).

State Tested Nursing Assistant (STNA)- The term State Tested Nursing Assistant or STNA is the term used within the current research that refers to nursing assistants, certified nursing assistants, and nurse aides. These individuals are certified, and skills tested to work in long-term care. Within the literature review and state by state, the terminology for this group of direct care workers is variable. Therefore the term STNA is the decided upon language for the current research, with the understanding that any mention of nursing assistants, nurse aides, and certified nursing assistants within the literature review is in reference to this specific group of certified, skills tested direct care workers.

Inclusion Criteria .

The inclusion and exclusion criteria for both phases of this research were developed to improve the likelihood that those who participated reflected the common experiences of all STNAs. Participants and respondents in both phases were able to read/understand English and were 18 years or older. The age requirement (18 years or older) was chosen for two reasons. First, demographic data of the profession indicates that most STNAs are over the age of 18 years. Second, it is possible that developmental and psychosocial differences may affect intent to stay and/or the underlying factors that influence it. Therefore, we chose to include adult volunteers only. Participants must also have had unrestricted certifications, without any violations or restrictions due to neglect or abuse that would deem them ineligible to work in long-term care. The potential participants and respondents in this study were limited to those employed at for-profit skilled nursing facilities due to the fact that for-profit facilities have the lowest retention rates among all facility types indicating that the experiences of STNAs within different profit structures may be distinct. All potential participants and respondents must also have been employed as an STNA for at least one year due to the possibility that individuals with less than a year in the profession may not have had the experience necessary to provide the information that would help meet the study aims. *Phase I* participants were employees at one of six northwest Ohio for-profit skilled nursing facilities within the HCR Manorcare organization. *Phase II* respondents must have been listed on the Ohio Department of Health Nurse Aide Registry prior to January of 2017 in order to potentially have been

randomly selected for a postcard mailing (Bureau of Labor Statistics, U.S. Department of Labor, 2014; Centers for Disease Control and Prevention [CDC], National Nursing Assistant Study [NNAS], 2004).

Phase I.

1. Participants must be at least 18 years or older, and have unrestricted certifications.
2. Phase I participants must have been employed for at least one year as an STNA.
3. Phase I participants must be currently employed as an STNA at one of six northwest Ohio HCR Manorcare skilled nursing facilities.

Phase II.

4. Participants must be at least 18 years or older, and have unrestricted certifications.
5. Phase II participants must currently be employed at a for-profit facility
6. Phase II participants must have been employed for at least one year as an STNA.
7. Phase II participants must be listed on the Ohio Department of Health Nurse Aide Registry.

Summary.

As the population of the United States continues to age, the maintenance of a stable nursing assistant workforce is essential. Several studies have found that intrinsic motivation plays a central role in intention to stay among STNAs (Decker et al., 2009; Bishop et al, 2008; Bishop, Squillace, Meagher, Anderson, & Weiner, 2009). These intrinsic factors are defined as non-monetary, internal factors that occur regularly, including feelings of support, belonging, competency, and perception of ability to

contribute (Deci et al., 2001; Decker, Harris-Kojetin, & Bercovitz, 2009; LaGuardia, 2009; Mittal et al., 2009; Rosen, Stiehl, Mittal & Leana, 2011).

Expected Results and Outcomes .

The proposed research was conducted in two phases. Both Phase I and Phase II of this study were conducted in order to provide a better understanding of the intrinsic factors that influence STNAs' intention to stay in their position, as well as develop a more concise and accurate model of this process. Identifying the distinct intrinsic factors related to intention to stay will provide a basis for which for-profit skilled nursing facilities can develop strategies to increase retention, as well as foster improvements in workplace practice and the provision of consistent quality care to their residents.

Chapter 2

Comprehensive Literature Review

Impact of Inconsistent STNA Staffing.

The constant fluctuation of STNAs negatively impacts skilled nursing facilities on multiple levels. Several research studies have indicated that the inability of SNFs to sustain STNA staff can negatively impact patient outcomes, create financial burdens, and increase turnover for all other direct care staff (Gray et al., 2016; Mittal et al., 2009; Thomas et al., 2012). Retention of STNAs has been shown to positively impact the entire direct care workforce within for-profit SNFs, and to better serve the growing needs of the aging population and current facility residents (Gray et al., 2016; Mittal et al., 2009; Thomas et al., 2012). This review of the literature explores experiences of STNAs in skilled nursing facilities, the impact of intrinsic factors on health, and the factors that have been identified to contribute STNA employment motivation and intention to stay in their jobs.

Impact of STNA staffing on the facility. Inconsistent STNA staffing not only affects the quality and timeliness of patient care, but also impairs facility functioning. Research has shown that the ability to retain STNAs enables the facility to function at a higher level due to higher retention of all direct care workers, decreased costs, and maintenance of facility profitability (Gray et al., 2016; Mittal et al., 2009; Thomas et al., 2012). As Medicare reimbursement regulations become increasingly more strict, a strong and capable direct care workforce within SNFs is essential in order for facilities to maintain preferred providers for Medicare patients (Donoghue & Castle, 2007; Thomas et al., 2012). With recent changes in reimbursement rates for Medicare patients, hospitals

with high readmissions from the SNFs to which patients are initially discharged are facing payment restrictions (Thomas et al., 2012). The brunt of the responsibility to prevent readmissions lies with the ability of the SNFs to provide high quality direct patient care following the patient's initial hospital discharge.

Ultimately, the research suggests that to maintain profitability, provide the best care, and attract Medicare discharges from hospitals; SNFs must work to maintain *all* nursing staff, beginning with STNAs (Donoghue & Castle, 2007; Thomas et al., 2012). Achieving staff consistency through the retention of STNAs is a primary determinant of how successful facilities are in maintaining status as preferred providers for Medicare patients (Thomas et al., 2012).

Impact of STNA staffing on patient health. While retention of STNA staffing is important in determining facility profitability, cost effectiveness, and overall cohesive operation, another important outcome of stable staffing is higher quality care and care continuity for residents. Research has shown that the positive experiences of health, work satisfaction, and intention to stay in their positions among STNAs is linked to similar positive health outcomes among the patient population that they serve (Brown et al., 2014; Thomas et al., 2012). Thomas et al. (2012) investigated the relationships among nurse turnover, retention, and their impact on re-hospitalization of patients within skilled nursing. The research utilized nursing home facility data and Florida Nursing Home Staffing Reports from 2002-2009. Data from 681 Florida nursing homes were analyzed to examine the relationship between inconsistent staffing and re-hospitalization of residents within skilled nursing facilities. Findings of a two-way fixed effects model indicated that a stable nursing workforce had a positive impact on the care provided to

residents. Results went on to indicate that stable nursing personnel, from nursing assistants (STNAs) to nurses, amounted to better resident care outcomes and lower avoidable hospital readmissions. This research was limited by not providing an examination of LPN and RN data separately, inability to distinguish between voluntary and non-voluntary turnover, inability to track tenure, and not taking into account other staffing factors that could contribute to retention and turnover (Thomas et al., 2012).

Brown, Redfurn, Bressler, Swicegood, and Molnar (2014) provided a deeper insight into the nature of the relationship between resident health and the retention and job satisfaction of nursing assistants. The findings of a longitudinal study indicated that increased job satisfaction among nursing assistants decreased negative clinical outcomes among residents. This intervention study provided additional training modules to direct care workers, while simultaneously monitoring clinical outcomes among residents. The research was conducted in a 203-bed facility in Northwest, Ohio, with participants including 30 registered nurses, five licensed practical nurses, and 47 nursing assistants. The intervention involved developing and evaluating an advanced training program for nursing assistants in an effort to increase job satisfaction and decrease turnover, with effectiveness analyzed by a pre and post-test. Demographic data were analyzed using descriptive statistics and scores from pre/post tests were compared using t-tests and Pearson correlations. Pairwise comparisons of turnover rates pre and post intervention were made using ANOVA. In the six months following the intervention, nursing assistant job satisfaction increased. Findings also indicated that the incidence of pressure ulcers, skin tears, bruises, and urinary tract infections among residents decreased following the intervention. Limitations of the research include the small sample size, geographically

limited sample population, non-response biases, and findings that differed from national data.

The findings reported above suggest that it is crucial to maintain a stable STNA workforce to enable consistent and quality resident care (Brown et al., 2014; Donoghue & Castle, 2007; Thomas et al., 2012). Overall, a stable STNA workforce and nursing staff delivers better care as evidenced by improved clinical outcomes and fewer re-hospitalizations among residents. As the primary points of contact for patients and residents, STNAs facilitate better patient care through their clinical care activities, the sharing of information, and by relaying their intimate patient knowledge to nurses and other facility staff (Brown et al., 2014;Gray et al., 2016, Kusamaul & Bunting, 2016; & Mittal et al., 2009; Thomas et al., 2012).

STNA Health: Healthy People 2020.

Research has shown that the physical and mental health of STNAs is significantly impacted by their work. Multiple studies have found that STNAs suffer impaired emotional, psychological, and physical health due to demands and stressors associated with their positions. Healthy People 2020 has identified several goal areas that relate directly to contributors of STNAs' health and well being in the workplace. The first relevant Healthy People 2020 goal is aimed to "Improve health related quality of life and well-being for all individuals." This goal area has focuses on the "Impact of health status on quality of life" which can assessed by combining the self-reported experiences in three complimentary and related domains (Office of Disease Prevention and Health Promotion [ODPHP], 2016). These domains include physical well-being, mental well-being, and

social well being. Physical well-being defined as vigor and vitality, feeling very healthy, and feeling full of energy. Mental well-being defined as being satisfied with one's life; balancing positive and negative emotions; accepting one's self, finding purpose and meaning in life; seeking personal growth, autonomy, and competence; believing one's life is and circumstances are under one's control; and generally experiencing optimism. Social well-being defined as providing and receiving quality support from family, friends, and others. This focus area is pertinent to STNAs who have notoriously low self-reported mental and physical health, Due to the nature of their work, low SES , limited benefit offerings and compounded experiences of health disparity and disadvantage due to multiple minority status (Office of Disease Prevention and Health Promotion [ODPHP], 2016). In addition, social health is inhibited among STNAs due limited opportunities for training, and professional development (Ejaz et al., 2008; Liang, Hsieh, Lin, and Chen,2014; Mawn et al., 2010; Tak et al., 2010; Zhang, Punnett, Gore, CPH-NEW Research Team, 2014; Zhang, Punnett, and Nannini, 2016).

The second relevant goal area identified by Healthy People 2020 is to "Promote the health and safety of people at work through prevention and early intervention" with a focus on "Prevention of disease, injury, and death due to working conditions" (Office of Disease Prevention and Health Promotion [ODPHP], 2016). In addition to low self-reported health and well-being among STNAs, they also have high documented experiences of occupational stress, hazards, and injury. STNAs have one of the highest risks of physical health problems stemming from their occupation including musculoskeletal disorders from lifting, manually handling patients, and high rates of patient inflicted bruising, bites, and scratches, and exposure to infectious disease and

hazardous drugs (Ejaz et al., 2008; Liang, Hsieh, Lin, and Chen,2014; Mawn et al., 2010; Tak et al., 2010; Zhang, Punnett, and Nannini, 2016).

Finally, the third goal area identified by Healthy People 2020 that is directly related to STNA work experiences is to "Improve the health, function, and quality of life of older adults." Within the category, caregivers are an articulated priority (Office of Disease Prevention and Health Promotion [ODPHP], 2016). Caregivers are defined as those that help people who need on-going assistance with activities of daily living (ADLs). This can include work of both paid and unpaid caregivers. Caregivers are at increased risk for negative health consequences, including stress and depression with an increased risk among those who care for individuals with Alzheimer's or related dementias (Office of Disease Prevention and Health Promotion [ODPHP], 2016). As the need for STNAs within SNFs increases with the growth of the older adult population, the health issues experienced by STNAs will continue to be exacerbated by their own personal circumstances, demographic characteristics, occupational hazards, and their role as paid caregivers within SNFs (Gray et al.,2016; Mittal et al., 2009; Thomas et al., 2012).

Psychological health. Several research studies have identified stressors impacting psychological health among STNAs and other direct care workers in skilled nursing facilities including, experiences of resident death and illness, condescension from other staff, and lack of workplace support (Bishop et al., 2009; Ejaz et al., 2008; Eriksen, Tambs, & Knardahl, 2006; Gray et al., 2016; Mittal et al., 2009). A longitudinal study of Norwegian nurses' aides conducted by Eriksen, Tambs, & Knardahl (2006) investigated the emotional and mental demands of the nursing assistant profession by examining

work-related factors that predicted psychological distress. A final sample of 4076 nurses' aides (STNAs) completed a baseline questionnaire, and a follow-up questionnaire at 15 months. The nurses' aides were assessed for a variety of physical, psychological, social, and organizational factors, including stress and anxiety. Results of a multivariate regression indicated that low workplace support and low encouragement were related to increased psychological distress. In addition, role conflict was found to predict psychological distress. The role expectation placed upon nurses' aides by their interactions with families, residents, and coworkers had a negative impact on their health (Eriksen et al., 2006). The results suggest that the emotional and mental demands of the workplace can influence psychological health outcomes among STNAs .The results of this study may be differently represented in a United States population of nursing assistants. Nevertheless, this research established connections between psychological health, workplace relationships, and factors that are specifically relevant to STNAs (Eriksen et al., 2006).

Results of research conducted by Eriksen et al. (2006) were corroborated by the work of Ejaz, Noelker, Menne, and Bagaka (2008). Ejaz et al. (2008) adapted the stress process model to examine common sources of stress and the negative impact stress had on the health and functioning of caregivers in long-term care settings. The study surveyed 644 direct care workers within 49 long-term care organizations. The direct care workers in this study include nursing assistants in nursing homes, resident assistants in assisted living facilities, and home health aides employed through home health agencies (Ejaz et al., 2008). The study found that caregivers in all direct care positions felt as though their positions posed emotional and physical strain, which resulted in poor self-reported health

outcomes (Ejaz et al., 2008). Results of regression analyses indicated that experiences of racism and negative interactions within workplace relationships with other staff and residents were detrimental to psychological health and overall job satisfaction among the study population. Strengths of this study included the robust research methods, multi-level data collection, and the sampling of United States direct care workers (Ejaz et al., 2008). Limitations of the research include generalizability, inability to randomly sample, and lack of longitudinal data (Ejaz et al., 2008).

Zhang et al. (2014) examined the relationship between intention to leave and working conditions and mental health for individuals employed within nursing homes. A cross-sectional study design was used to examine the relationships between working conditions and mental health among 1589 employees at 18 for-profit facilities. Results of the multivariate linear regression and Poisson regression found that relationships between working conditions and employee intention to leave are mediated by their experiences of positive or negative self-reported mental health (Zhang et al., 2014). Decreased intention to leave their workplace among the study population was related to experienced *positive* mental health and beneficial and supportive working conditions (Zhang et al., 2014). Limitations of the study included low reliability for the decision-making measure used, homogeneity of facility type, and generalizability of findings due to geographical area and sample population (Zhang et al., 2014).

Zhang, Punnett, and Nannini (2016) built upon previous research and investigated mental health, work-family conflict, and sleep quality of nursing assistants working in nursing homes. This cross-sectional study analyzed questionnaire data from 650 nursing assistants from 15 nursing homes. Results of Poisson regression modeling, multivariate

modeling, and ANOVA indicated that increased work-family conflict resulted in lower self-reported mental health among nursing assistants (Zhang et al., 2016). Further, experiences of work family conflict were shown to negatively impact work-related outcomes including satisfaction, intent to leave, and absenteeism (Zhang et al., 2016). The study findings also indicated that nursing assistants had lower self-reported mental health compared to the average population (Zhang et al., 2016). Ultimately, the findings indicated that the presence of work-family interference equated to more physical and psychological demands at work and negative health outcomes among the nursing assistants surveyed (Zhang et al., 2016). Limitations of the work included the cross-sectional nature of the study, selection biases, and inability to draw causal inferences from the data (Zhang et al., 2016).

Physical health. In addition to emotional and psychological strain, STNAs also experience a preponderance of negative effects on their physical health due to their work environments and job requirements. Tak et al. (2010) provided an in depth examination of the racial and ethnic disparities and socio-economic status of nursing assistants, and the impact those factors had on work-related injuries and health status. The research suggested that disparities related to race, ethnicity, and socio-economic status negatively impacted the experiences of nursing assistants employed in a sample of United States nursing homes. The study analyzed 2880 nursing assistants' responses to the 2004 National Nursing Assistant Survey (NNAS) and focused primarily on workplace injury. Results indicated that one-third of the responding nursing assistants had previously experienced workplace injury related to occupational hazards and reported more rates of violence by residents than any other direct care workers. Tak et al. (2010) identified that

the physical demands of the nursing assistant occupation and the manual handling of patients manifested in four common forms of workplace injury including scratches/open wounds, black eyes/bruising, back injury, and human bites. Ultimately, the study identified that nursing assistants faced disparities in a variety of domains including disparity related to social position, race/ethnicity, income, education, and immigration status, all of which negatively influenced their physical health (Tak et al. 2010).

Liang, Hsieh, Lin, and Chen (2014) examined the impact of job stressors on health related quality of life of nursing assistants in long-term care among an international sample of 433 nursing assistants from 64 long-term care facilities. Of the participants, 45 percent were employed at skilled nursing facilities and 53 percent were employed at for-profit facilities (Liang et al., 2014). Cross-sectional data were analyzed using bivariate and multiple linear regression analyses to examine the relationship between health-related quality of life and specific study measured factors thought to impact health-related quality of life (Liang et al., 2014). The findings indicated that contributors to job stress among STNAs included general job tasks, resident care, coworker relationships, and workload as well as personal demographic characteristics. The aforementioned stressors were associated with coronary heart disease, high blood pressure, musculoskeletal disorders, lifestyle cancer risks, and psychosomatic symptoms (Liang et al., 2014). The study was limited due to language barriers, self-report biases, the cross-sectional nature of the data, and a series of low coefficients in the regression analyses indicating the possibility of additional unmeasured confounders (Liang et al., 2014).

These combined studies have identified a number of factors that contribute to poor physical and psychological health outcomes among STNAs. Healthcare workers experience exposure to risks including the risk of infectious diseases, workplace violence, overexertion, chemicals, stress of shift work, and psychosocial stressors (Centers for Disease Control and Prevention [CDC], National Institute for Occupational Safety and Health [NIOSH], 2016). The overwhelming workloads, job demands, emotional stressors and aforementioned workplace factors negatively impact STNAs physical and psychological health and well-being, and may ultimately have negative consequences on their willingness to remain in their positions and their ability to provide quality patient care. (Ejaz et al., 2008; Liang et al., 2014; Mawn et al., 2010; Tak et al., 2010; Zhang et al., 2014; Zhang et al., 2016).

Extrinsic Factors Influencing STNA Intent.

In addition to the impact of the health disparities and poor health outcomes experienced by STNAs on their workplace motivation and functional ability, additional workplace factors affecting both intrinsic and extrinsic motivation have been identified as contributors to STNAs' intent to stay or leave their workplace. Extrinsic factors refer to behavior, or motivation for behavior, that exist externally. Extrinsic factors can include rewards such as money, compensation, or benefits (Deci et al., 2001). The physical, mental, and emotional challenges experienced by STNAs working in skilled nursing facilities are further influenced by these extrinsic factors such as low-wages, poor benefits, limited upward mobility, and heavy workloads (Bishop et al., 2008; Bureau of Labor Statistics, U.S. Department of Labor, 2014).

The aforementioned extrinsic factors influencing STNAs have often been cited as the primary contributors in STNAs deciding to leave their jobs (Bureau of Labor Statistics, U.S. Department of Labor, 2016; Tak et al., 2010; Bishop et al., 2009). Data has suggested that one in three nursing assistants reported a household income of less than 20,000 dollars. Tak and colleagues (2010) also found that 29% of STNAs surveyed in their study identified no health insurance and cited the disparate benefit offerings and low wages provided by the facility as the primary reasons for turnover (Tak et al. 2010; Temple, Dobbs, & Andel, 2010; Weiner, Anderson, Khatusky, Squillace, 2009).

Temple et al. (2010) corroborated the impact of poor compensation and benefits in their examination of data from the 2004 National Nursing Home Survey (NNHS). Results from the 944 nationally representative nursing homes identified that nearly 15% of skilled nursing facilities failed to offer any benefits to their nursing assistants, with further disparity in access and provision of benefits experienced in relation to status as a racial/ethnic minority (Temple et al., 2010). Using a linear regression model the researchers found that among the skilled nursing facilities involved in the study, for-profit status and viewing nursing homes as "commodities" decreased the likelihood of that facility providing benefits to nursing assistants and also decreased retention of nursing assistants (Temple et al., 2010). Findings of the study indicated that continued increases in the for-profit structure of nursing homes are a detriment to retention of STNAs. While this study utilized data that may not be entirely relevant due to market changes, the trends of increased for-profit nursing homes and the decrease in non-profit homes and their associated turnover rates continue to persist (Temple et al., 2010).

Similarly, Bishop, Squillace, Meagher, Anderson, and Wiener (2009) investigated work practices, specifically compensation and working conditions, and their impact on nursing assistant job satisfaction. Bishop et al. (2009) used responses of 2252 nursing assistants surveyed through the 2004 National Nursing Assistant Survey (NNAS). The results highlighted the importance of extrinsic rewards such as advancement opportunities, increased wages, and availability of benefits among STNAs suggesting that addressing these specific deficits among the STNA workforce could be integral in prevention of *turnover* (Bishop et al., 2009)

Research has demonstrated links between limited benefit provision, low pay, and decreased job satisfaction with turnover and continued health disparities among STNAs (Brown et al., 2014, Mittal et al., 2010; Tak et al., 2010). However, despite the demonstrated importance of wages and benefits as a measure of nursing assistant job satisfaction and as the drivers of extrinsic motivation, the feasibility of impacting these areas of dissatisfaction is diminished due to limited resources, restricted budgets, and prohibitive reimbursement practices at the organizational/facility level (Bishop et al., 2008; Bishop et al, 2009; Decker et al., 2009).

The benefit offerings and overall level of monetary compensation for STNA work within the for-profit structure continue to be negligible. Improvement in provision tangible rewards is unlikely to accompany the increased need for STNAs as the population ages due to budgetary restrictions and the current and continued trends toward for-profit structures in SNFs. The current inability, or unwillingness, to provide extrinsic rewards for STNAs' work necessitates identification of more immediately actionable and

alternative strategies to retain these integral direct care workers (Bishop et al., 2008; Bishop et al, 2009; Decker et al., 2009).

Intrinsic Factors Influencing STNA Intent.

Intrinsic determinants of intent to stay. Despite the low pay, health risks, and workplace difficulties, several studies have identified that some STNAs continue to remain in their jobs due to *intrinsic factors* such as feelings of satisfaction in providing a caregiving service to their residents and experiences of positive coworker relationships (Castle et al., 2007; Gray et al., 2016; Kusamaul & Bunting, 2016; Mittal et al., 2009). Decker , Harris-Kotjetin, and Bercovitz (2009) examined *intrinsic* job satisfaction and intention to leave the job among nursing assistants in nursing homes. Decker et al. (2009) used the responses from 2146 nursing assistants who worked 30 or more hours per week to examine the predictors of intrinsic job satisfaction, overall satisfaction, and intention to leave among nursing assistants. Results of regression analyses suggested that *lack of* intrinsic motivation played a central role in nursing assistants' intentions to leave their position (Decker et al., 2009). Further, intrinsic job satisfaction mediated the relationship between extrinsic work dimensions and intent to leave. The research by Decker et al. (2009) identified the importance of intrinsic satisfaction at work for STNAs. The research conducted by Decker et al. (2009) is foundationally significant in establishing the salience of intrinsic factors, including job satisfaction, as associative with intention among STNAs, and as alternative pathways to understand retention behavior among STNAs. Limitations of this research included the cross-sectional study design, the lack of

data on the coworker environment, the measurement of covariates with a single item, and the lack of direct measurement of turnover (Decker et al., 2009).

Rosen et al. (2010) conducted a twelve-month longitudinal study to further examine SNTAs' workplace experiences using surveys with 620 nursing assistants. Of those surveyed, 532 participants stayed in their positions during the course of the study, 52 of those switched jobs but remained in the industry, and 36 participants completely left the industry. Findings of bivariate analyses and cross sectional comparisons indicated complex relationships between *intent* and *actual* turnover and retention of the STNAs surveyed. Those who decided to leave their positions differed attitudinally than those who stayed or switched. Intrinsic factors such as attitudinal factors, job satisfaction and experienced emotional distress contributed to STNA *turnover intention* but were not directly linked to *actual turnover*. Similarly, extrinsic factors contributed to intention to leave and were found to be more indicative of *actual* turnover when combined with negative attitudinal factors, emotional distress, low job satisfaction, and low supervisor respect (Rosen et al., 2010). The research identified that stayers were usually older, had longer job tenure, and did not experience any changes in their emotional well-being or promotion opportunities. These findings suggested that positive attitudinal experiences, higher job satisfaction, and lower emotional distress could be the predominate factors in STNAs' *decision to stay* in their positions, despite less than desirable tangible or extrinsic rewards. Those who were identified as "switchers' or "leavers" were found to have experiences of even lower wages after leaving or switching jobs, supporting the idea that although wage offerings are important, intrinsic factors may have even greater influence STNA decision making. Limitations of this work include exclusion of part-time workers,

geographical area, not focusing on facility level differences, and an economic recession at the time of data collection that could have influence respondents (Rosen et al., 2010).

The findings of Rosen et al. (2010) and Decker et al. (2009) provide the framework to better examine the motivational underpinnings of the decisions STNAs make in regards to their career trajectories. Both studies identified that intrinsic factors are integral determinants that may help to develop a better understanding of STNA intent to stay. Research has identified several intrinsic factors that serve as determinants of STNA workplace motivation and drivers of retention and workplace satisfaction. These intrinsic factors include feelings of satisfaction and fulfillment with the caring relationship as well as experiences of supportive work environments.

The caring relationship. Research has identified that a primary determinant of intrinsic satisfaction among STNAs is the caring relationship. The caring relationship is the cornerstone of the nursing assistant profession, and successful and fulfilling caregiving relationships have been shown to be mutually beneficial for the STNA and resident (Brown et al., 2014; Castle et al., 2007; Gray et al., 2016; Kusamaul & Bunting, 2016; Mittal et al., 2009). Several research studies have identified that the caring relationship and the inherent meaning that STNAs associate with patient care are primary contributors to their intent to stay in their positions (Gray et al., 2016; Kusamaul & Bunting, 2016; Mittal et al., 2009).

Mittal et al. (2009) conducted a cross-sectional qualitative study to understand the factors associated with turnover and retention of direct care workers. This study hypothesized a dual –driver model to explain the reasons why direct care workers choose to stay or leave their jobs. The researchers hypothesized that individual, contextual,

workplace, and off the job factors were viable ways to distinguish between the reasons that individuals stay or leave their jobs (Mittal et al., 2009). The research identified distinct differences in the factors that drive retention and turnover among direct care workers. The study consisted of seven focus groups with 47 participants and focused on the difference between those that stay and those that leave their jobs. Themes associated with those who *chose to stay* were centered on the caring relationship and several other intrinsic factors such as being "called" to service, serving as a patient advocate, personal relationships with residents, religion/spirituality, work being a haven from home problems, and flexibility (Mittal et al., 2009). Limitations of this study included the inability to observe evolutionary relationships due to the cross sectional nature of the work and the limited depth in the investigation into the distinct complex concepts contributing to retention and turnover (Mittal et al., 2009). However, results of this study are important to understand the more nuanced contributors to STNA intent, and the researchers were able to provide evidence that the causes for turnover and retention are distinct (Mittal et al., 2009). Findings of this study were corroborated by the later work of Rosen et al. (2010) in which the examination of STNA employment intentions revealed distinct causal differences in those that stayed and left their place of employment, thus further confirming that the reasons, and solutions, for retention and turnover are not reciprocal of one another (Mittal et al.,2009; Rosen et al., 2010).

Gray et al. (2016) provided additional evidence of the importance of the caring relationship as a primary intrinsic factor influencing intent to stay among STNAs. Their research examined the meaning that nursing assistants associated with their work and its relationship to job satisfaction. A sample of 22 nursing assistants that participated in a

series of three focus groups was drawn from one for-profit and two non-profit facilities. The findings suggested that STNAs experienced satisfaction within the caring relationship and felt their work was "good" or "special," that they viewed themselves as relationship builders, that they believed they were experts on their patients, and that they viewed themselves as members of a team (Gray et al., 2016). The research identified that STNAs' job satisfaction was positively impacted by the intrinsic satisfaction experienced when STNAs were able to successfully build their identity within the aforementioned themes, experience positive caring relationships, positive work environments, and meaningful workplace interactions. Gray et al. (2016) also cautioned that linking nursing assistant job satisfaction to the level of monetary fulfillment devalues the importance of their work for themselves and others, and impairs the ability for these workers to be seen as valuable caregivers (Gray et al., 2016). Limitations of this work are that the facility types did not represent the larger for-profit facility climate, the possible influence of administration and supervisors in the interview process, and the relatively small sample size (Gray et al., 2016).

Further support for the work of Mittal et al. (2009) and Gray et al. (2016) is found in the research by Kusamaul and Bunting (2016), which examined STNAs' perspectives on caregiving and the factors they considered contributors to quality care of their residents. The study used semi-structured interviews conducted with 23 nursing assistants employed at nursing homes in New York State. The data revealed three themes that nursing assistants identified as contributors to quality care; the technical aspects of care, care of the environment, and "a little bit more." The participants described the technical duties of their work and caring responsibilities as well as the importance of clean and safe

rooms for their residents. Finally, the nursing assistants identified that, “a little bit more” was a sense that they had of feeling as if they should go above the requirements or duties of their position and get to know their patients personally by interacting on a level beyond the physical care tasks (Kusamaul & Bunting, 2016). Limitations of this research included the geographic limitations, a skewed sample in terms of level of experience, possible biases of those who participated, missing the perspectives from those who did not participate, and that a large proportion of the participants came from the same facility (Kusamaul & Bunting, 2016).

A feeling of closeness and attachment during relationship building between STNAs and residents is attributable to positive feelings toward their work and increased job satisfaction (Gray et al., 2016; Kusamaul & Bunting, 2016). The STNAs who associate a positive meaning to their work and find fulfillment from the caring relationship may be those more likely to exhibit intent to stay in their positions (Gray et al., 2016; Mittal et al., 2009). In addition to clinical care tasks, a large majority of the time STNAs spend at work consists of personal interactions and relationship development with coworkers, supervisors, and patient families (Brown et al., 2014; Castle et al., 2007; Gray et al., 2016; Kusamaul & Bunting, 2016; Mittal et al., 2009).

Supportive work environments. Additional evidence exists that identifies the importance of the other interpersonal interactions and relationships in the workplace that can influence STNA intention to stay in their positions. Castle et al. (2007) examined job satisfaction of nurse aids in nursing homes in an effort to understand turnover and intent to leave. The researchers randomly sampled from 72 nursing homes across five states and collected survey data from 1779 nurse aides. The researchers examined actual turnover

during one year. Results of regression analyses indicated that high overall job satisfaction was associated with lower scores in thinking about leaving, thinking about job searching, actually searching for a new job, and actual turnover. Multivariate analysis also revealed that low job satisfaction was associated with intent to leave and actual turnover. Results indicated that a culture of workplace respect among peers and supervisors were influential to nursing assistant job satisfaction and intent to stay. Additionally, instances of poor management, lack of respect, and poor personal relationships were among the major contributors to low retention among direct care workers. Limited generalizability of data due to geographic location, low facility response rate, inability to validate causal model of intent to leave and turnover, self-report bias, and ability for intent to stay to explain turnover existed as limitations to this study (Castle et al., 2007).

Probst, Baek, and Laditka (2010) completed a cross-sectional study with a nationally representative sample 2897 randomly selected nursing assistants from 790 homes to examine the relationship between workplace environment and job satisfaction among nursing assistants. Elements of job satisfaction measured by the study included workplace morale, benefits, salary, wages, learning new skills, and "overall satisfaction." Elements of the environment measured by this study included supervisor behavior, time pressures, organizational climate, perceived value, and consistent care. Results of bivariate analyses, ANOVA, and linear regression and multivariate regression indicated that clear communication from supervisors, sufficient time for tasks, and being valued by others at work were positively associated with job satisfaction. Further, STNAs who perceived positive workplace culture indicated more satisfaction with their work (Probst et al., 2010). Limitations in this study included the cross-sectional nature, self-reported

data, and those associated with the use of secondary data drawn from the National Nursing Assistant Survey (Probst et a., 2010).

Barriers to Intrinsic Satisfaction.

Despite the identified importance of positive caring relationship development and a supportive workplace culture, barriers to intrinsic satisfaction in the workplace persist in the form of communication issues and troubled relationships with coworkers and supervisors. Rubin et al. (2009) examined the experiences of two nurses, 10 licensed practical nurses, and 19 and state tested nursing assistants at a 40 bed facility in Ohio using qualitative methods. Findings from individual interviews and guided focus groups indicated that participants' experienced, and continually encountered, complex communication issues in the workplace. Nursing assistants identified a preponderance condescension and judgment felt from their supervisors as barriers to workplace satisfaction. Similar to Mittal et al. (2009) and Castle et al. (2007) issues with lack of workplace support and inability to sustain a supportive social environment at work were cited as detriments to positive work outcomes (Rubin et al., 2009). Limitations included that the research was a pilot study, attrition rates, interview biases, geographical location limitations, and small sample (Rubin et al., 2009).

The negative effects of poor relationships and poor communication patterns are evident in persistent trends of absenteeism and low retention rates among STNAs and other direct care staff (Rubin et al., 2009; Trybou et al., 2014). Communication and positive social interactions across departments and disciplines in a SNF are integral to STNA job satisfaction and retention (Rubin et al., 2009; Trybou et al., 2014; White et al.,

2012). Research has suggested that the workplace social environment can be improved for STNAs by fostering good relationships between the STNAs, supervisors, and other colleagues through teamwork, respect, and positive social support (Bishop, 2009; White et al., 2012).

Mittal and colleagues (2009) identified that the causes for turnover and retention are distinct. Research has shown that the causes of *turnover* can be linked to dissatisfaction with tangible rewards such as compensation, while *retention* can be linked to the intrinsically motivated factors (Temple et al., 2010; Wiener, Squillace, Anderson, & Khatutsky, 2009). The aforementioned studies have found that negative workplace social experiences among coworkers and supervisors have a detrimental impact on nursing assistant intrinsic satisfaction, intent to stay, and ultimately retention. Conversely, positive workplace relationships with coworkers and residents can have the opposite effect (Bishop et al., 2009; Castle et al., 2007; Mittal et al., 2009; Probst et al., 2010; Rubin et al., 2009).

These combined works have highlighted the importance of facilitating a positive workplace climate emphasizing the development of both caring relationships and coworker relationships as determinants of intent to stay. These works have provided a foundation from which to understand STNA workplace motivation, and the interplay of factors that coalesce to influence health, well-being, and sustainability of the STNA workforce within for-profit skilled nursing facilities (Castle et al., 2007; Mittal et al., 2009; Probst et al., 2010; Rubin et al., 2009).

Theoretical Foundation.

Introduction to the Self-Determination Theory. The Self-Determination Theory (SDT) is motivational theory designed to understand and explain human motivation and personality. Central to the SDT is the understanding of the importance of intrinsic motivation for sustained behavior, well-being, and individual satisfaction. Intrinsic motivation involves individuals doing or participating in an activity because they find it interesting and/or enjoyable and derive satisfaction from the activity itself (Gagne & Deci, 2005; Ryan & Deci, 2000). Conversely, extrinsic motivation requires instrumentality between the activity and some type of consequence, such as tangible or verbal rewards in which satisfaction comes from the consequences associated with the activity's performance, not the activity itself (Gagne & Deci, 2005; Ryan & Deci, 2000).

Motivational continuum. Gagne and Deci (2005) describe individual motivation to perform activities or behaviors in terms of *autonomous motivation* and *controlled motivation*. Autonomous motivation exists when there is a willful action on the part of the actor and when an actor experiences some level of choice of activity. Intrinsic motivation is inherently autonomous, in which the actor performs a behavior or activity for the enjoyment or interest that that activity provides (Gagne & Deci, 2005). Controlled motivation exists when the actor is being controlled in their actions and acting under a sense of pressure. Controlled motivation encompasses the most basic form of extrinsic motivation and behavioral regulation. Therefore, any activity or action that is not inherently interesting to the individual performing the activity necessitates some level of extrinsic motivation and a desired associated consequence for the individual to engage in the behavior (Gagne & Deci, 2005). However, through *internalization*, there exists a

continuum on which extrinsic (controlled) motivation can reach the level of autonomous motivation (Gagne & Deci, 2005).

The internalization of extrinsic motivation identifies the degree to which behavior is regulated and spans a continuum from introjection to identification and then to integration. Introjected behavioral regulation exists when the actor feels as if his or her actions are controlled or they feel as if they lack volition in the regulation of their behaviors (Gagne & Deci, 2005). *Identified* behavior regulation exists when the tasks that need to be performed are unpleasant or uninteresting but the actor understands the importance of performing that task. *Integrated* behavior regulation exists when their behavior or actions have a greater meaning and, not only do the actors understand the importance of their activities, they also internalize the activities as part of their identity. Integrated and identified motivation elevate the individual operating from a level of controlled motivation to a level of autonomous control due to an acquired awareness of the value of their behaviors on a level beyond tangible rewards. Further, individuals existing on this continuum can grow to appreciate and understand the behaviors and responsibilities of their position as important for their own goals, values, and their overall well-being (Gagne & Deci, 2005).

STNAs and the motivational continuum. The motivational continuum within the SDT is especially pertinent to STNAs who experience minimal and limited tangible rewards in response to their workplace activities, and who participate in care tasks that are not inherently enjoyable or interesting. Therefore, in order for STNAs to be motivated to stay in their position despite low pay and benefits, facilities must enable internalization of their extrinsic motivation or provide them with opportunities for intrinsic fulfillment

(Gagne & Deci, 2005; Gagne et al., 2008). Nursing assistants experience limited compensation and participate in caregiving tasks that are not inherently enjoyable. Facilitating autonomous control among STNAs ascribes value to their care tasks and work activities on a level beyond tangible rewards. This encourages them to accept and understand the behaviors and responsibilities of their position as important for their own goals, values, and their overall well-being, which may ultimately enable intrinsic fulfillment in their work and subsequent intent to stay (Gagne & Deci, 2005; Gagne et al., 2008).

While the detrimental effects of limited tangible rewards are indicative of *turnover* intent, intent to stay is impacted by caregiving experiences and aspects of the profession that provide intrinsic satisfaction or internalized extrinsic fulfillment through an internal satisfaction, interest, joy, or understanding of the importance of one's work (Mittal et al., 2009; Trybou, De Pourcq, Paeshuyse, & Gemmell, 2014). Therefore, it is essential that STNAs can experience integrated or identified regulation in response to their workplace behaviors in order for them to feel autonomous in their action and value their work. The work by Zhang et al. (2014), Zhang et al. (2016), and Liang et al. (2014) provide evidence that opportunities for social interaction, job control, and demonstrations of competence are integral to the satisfaction and sustainment of nursing assistants at skilled nursing facilities. The need for interpersonal relationship building, respect for employee work, and involvement in care decisions reflects the needs of relatedness, competence, and autonomy as identified by the Self-Determination Theory.

Basic Psychological Needs Theory.

Within the SDT, the Basic Psychological Needs Theory is a meta-theory that has been used to explain a variety of health behaviors and the various interactions between motivation and basic psychological need fulfillment that impact health and well-being (Deci et al., 2001; Gagne & Deci, 2005; Ng et al., 2016). There are three basic psychological needs according to the meta-theory and satisfaction of all three basic psychological needs is essential to optimal task performance, functional ability, psychological health, overall well-being, and motivation. The three basic psychological needs are: 1) *Autonomy* defined as "self-rule" actions that are self-initiated and self-regulated in relationship with one's goals; 2) *Relatedness* defined as a sense of belonging and feeling significant in the eyes of others, not according to position or status, or feeling connected to others; and 3) *Competence* defined as the experience of mastery, challenge and engagement in the activities that may serve to broaden one's capacities or one's behavior (Deci et al., 2001; LaGuardia, 2009; Trepanier et al., 2013). Depending on the motivational context, an inability to satisfy one's basic psychological needs could negatively influence an individual's motivation to participate in everyday tasks and activities (Deci et al., 2001; Gagne & Deci, 2005; LaGuardia, 2009; Trepanier, Fernet, & Austin, 2013). Further, inability to achieve basic psychological need satisfaction can be a detriment to an individual's overall health, well-being, and self-motivation (Deci et al., 2001; Gagne & Deci, 2005; Patrick et al., 2007).

Self-Determination Theory and Health Research.

Ryan, Patrick, Deci, and Williams (2008) utilized tenets of the Self – Determination Theory and the Basic Psychological Needs meta-theory in examination of health behavior within a healthcare setting. They postulated that when humans feel that their basic psychological needs are being met there are better mental health outcomes and greater quality of life, as well as better health related lifestyle behaviors (Ryan et al., 2008). While their research studied the patient-provider relationship and the impact of type of patient care on health outcomes and behavior adherence, the same principles can be applied to a healthcare workplace (Ryan et al., 2008). In the study, the authors provided a Self-Determination Theory Model of Health Behavior Change (Ryan et al., 2008). The model posits that facilitation and satisfaction of basic psychological needs has effects on both the physical and mental health of an individual (Ryan et al., 2008).

Additional studies using the Self- Determination Theory in the context of health behavior were included in meta-analysis performed by Ng et al. (2012). Ng et al. (2012) found that the SDT has been successfully used to address tobacco interventions, high blood pressure interventions, and cervical cancer screening behaviors (Ng et al., 2012). All of the studies included in the meta-analysis suggested that basic psychological need fulfillment identified that in 184 SDT based studies the fulfillment of basic psychological needs predicted better mental health and higher levels of health behavior activities promoting physical health and longevity (Ng et al., 2012). Further, the meta-analysis found that fostering feelings of the basic psychological need of *autonomy* promotes better mental and physical health.

Basic Psychological Needs in Healthcare Settings.

Coworker/supervisor relationships. In addition to its applicability to health behavior research, the tenets of the Self-Determination Theory and Basic Psychological Needs meta-theory have been applied to research examining relationships within healthcare settings. Bishop et al. (2008) investigated the impact of nursing home organizational factors on nursing assistant job commitment. The mixed methods research qualitatively explored management philosophy and practice as well as nursing assistants' perspectives of their work with 255 nursing assistants in 15 homes. In the quantitative phase, researchers distributed questionnaires to 105 residents of skilled nursing facilities (Bishop et al., 2008). Data were analyzed using logistic regression to estimate the effect of personal characteristics, satisfaction with tangible rewards, and job design on STNA intent to stay. General linear modeling was used to examine the effect of job commitment on residents. Intent to stay among STNAs was significantly impacted by supervisor support and respect. The ability to use knowledge at work, and to have control over one's work, was found to have a positive effect on job commitment. The limitations of this study exist in the applicability of findings to the study population due to choosing to interview and collect detailed qualitative data on administration and supervisors rather than nursing assistants (Bishop et al., 2008).

Trepanier, Fernet, & Austin (2013) further examined intrinsic motivation in the nursing profession and developed and tested a model of workplace bullying to predict poor psychological health at work. Researchers examined nurses in a variety of settings, and measured their fulfillment of their basic psychological needs to determine how these affect intention to leave the job. The cross-sectional research was conducted with 1,179

nurses in Quebec, Canada. The study examined intrinsic motivation via basic psychological need fulfillment and the reasons why a nurse may or may not be able to attain satisfaction of his or her basic psychological needs (Trepanier et al., 2013). The study found a preponderance of workplace bullying and adverse work conditions that negatively affected the autonomy, relatedness, and competence of the study participants (Trepanier et al., 2013.) The study highlighted the significance of the social context and the role it played in individual functioning of the nurses surveyed. Latent correlations and Structural Equation Modeling (SEM) using M-Plus software revealed the importance of social environment and identified relationships between fulfillment of nurses' basic psychological needs and intrinsic motivation as predictive of commitment to an organization or place of employment (Trepanier et al., 2013). The study was limited in its generalizability and ability to draw causal inferences based on the cross sectional study design (Trepanier et al., 2013). Similarly to the nurses in the aforementioned study, nursing assistants may experience varying levels of some type of inequity or inequality in the for-profit skilled nursing facility setting that negatively impacts their ability to achieve fulfillment of their basic psychological needs (Tak et al., 2010; Trepanier et al., 2013).

Custers, Westerhof, Kuin,and Riksen-Walraven (2010) interviewed 88 nursing home residents to understand their perceptions of their own basic psychological need fulfillment. The study examined basic psychological need fulfillment of residents and the impact on their self-reported well-being and overall life satisfaction. Results of hierarchical multiple regression and meditational analyses indicated that residents who experienced basic psychological need fulfillment through interactions with nursing

assistants during their time in nursing homes, had fewer experiences of depression and depressive symptoms and identified an increase in their own life satisfaction (Custers et al., 2010). The authors concluded that high quality caring relationships facilitate better self-reported health, well-being, and quality of life of residents in skilled nursing. The study highlighted the importance of need fulfillment within the caring relationship between resident and nursing staff. Custers et al., (2010) also identified that due to the influence of the caring relationship on resident well-being, a better understanding the relationship between resident and nursing staff is necessary. Limitations exist due to the cross-sectional nature of the work, inability to explain fluctuations identified personal importance placed on relatedness, competence, and autonomy by the residents when measured as independent constructs and the self-reported nature of the data.

The findings of Custers et al. (2010) reveal the interconnectivity of the caring relationship from the resident perspective. It is possible that the caring relationship and fulfillment of basic psychological needs can be studied in the reverse, from the perspective of nursing assistants to reveal similar findings. Residents and nursing assistants share similar struggles due to socio-economic characteristics and engage in interpersonal relationship building with one another of a hypothesized mutual importance. Therefore, it is reasonable to assume that basic psychological need fulfillment among nursing assistants will carry similar importance and health implications (Custers et al., 2010).

Conclusively, these studies indicate that fulfillment of basic psychological needs via relationship supportive environments, where care is person-centered and nursing assistants are valued increases job commitment and result in better health for nursing

assistants (Gray et al., 2016; Mittal et al., 2009; Morley, 2014; Trepanier et al., 2013; White et al., 2012).

Current Research Rationale.

As the United States population continues to age, and as older adults confront detriments to their health and independence, there will be a continued need for STNAs within skilled nursing facilities. The growing need for STNAs continues to be exacerbated by an inability to sustain the current workforce. Inability to sustain STNA workforce in skilled nursing facilities amounts to nearly four billion dollars of direct and indirect costs annually (Brown et al., 2014; Castle et al., 2007; Decker et al., 2009).

High turnover and low retention have been found to have decidedly different causal contributors (Dill et al., 2013; Mittal et al., 2009; Trybou et al., 2014). Research by Dill et al. (2013) found that financial rewards and benefits had no correlation to *intention to stay or retention* and that job experiences are not related to *turnover intention and turnover behavior* (Dill et al., 2013). Turnover is driven by extrinsic factors such as tangible rewards, benefits, and compensation. (Dill et al., 2013; Mittal et al., 2009; Trybou et al., 2014). Low-wages and limited benefits are detrimental to this workforce however, the current structure of long-term care does not provide solutions to these extrinsic issues. Often, facilities are operating under bankruptcy and reimbursement rates that barely cover the costs of care (Dill et al., 2013; Decker et al., 2009). In addition, extrinsic factors are beyond individual control and are situationally constrained (Mittal et al.,2009; Rosen et al., 2010). Therefore, impediments to impacting turnover or turnover

intention through manipulation of extrinsic factors continues to remain an obstacle to remedying issues with STNA staffing inconsistencies.

However, research suggests impacting retention by addressing the influence of intrinsic factors such as positive relationships and the ability to work autonomously may be a more readily actionable way to impact STNAs' intent to stay in their positions (Dill et al., 2013; Mittal et al., 2009; Trybou et al., 2014). While extensive research investigating job satisfaction among STNAs exists, the work has failed to investigate the deeper psychological underpinnings of nursing assistant motivation. Therefore, to better understand retention and intent to stay, it is integral to conceptually separate turnover and turnover intent from retention and intent to stay. This research focused on retention through an examination of intrinsic factors influencing STNAs' intent to stay in their positions at for-profit skilled nursing facilities.

Summary.

The continued staffing inconsistencies among STNAs in for-profit SNFs necessitate a deeper understanding of the contributing motivational factors that drive the staffing fluctuations. Understanding the distinct causal factors related to intent to stay is a necessary step in order to facilitate practical and effective solutions to enable retention of STNAs. Research has suggested that organizations that foster an environment where employees are functioning with autonomous motivation, via basic psychological need fulfillment, as opposed to controlled motivation will enable: 1) Maintenance of desired employee behavior or culture changes; 2) Increased effective performance; 3) Increased

job satisfaction; 4) Positive work related attitudes; 5) Psychological adjustment; 6) Promotion of employee well-being (Gagne & Deci, 2005).

Using the Self -Determination Theory, with a focus on the Basic Psychological Needs meta-theory, this research investigated the experiences STNAs at for-profit skilled nursing facilities in order to develop an understanding of the relationships between basic psychological need fulfillment, physical health and psychosocial well-being, and organizational factors on intent to stay (Deci et al., 2001; Gagne & Deci, 2005; LaGuardia, 2009). Further, the study aimed to develop and test a model of STNA intent to stay (Appendix A) based on the SDT, Basic Psychological Needs meta-theory, and the existing literature. The relationships proposed by the conceptual model include both hypothesized correlational and causal relationships based on the existing literature and indicated by the uni-directional or bi-directional arrows.

Chapter 3

Methods

This research employed a mixed-methods design occurring over two sequential phases. Phase I was qualitative and exploratory in nature. The aim was to build a conceptual model representing intent to stay based on the SDT and Basic Psychological Needs meta-theory. The data were also used to guide the selection of measures in Phase II of the research. The second phase was quantitative in design and aimed to test the conceptual model in a larger sample in order to determine which factors were significant predictors of intent to stay.

Mixed-methods were selected because they are useful in research where there is limited existing data on the specific topic being investigated. Therefore, a mixed methods design was deemed most appropriate for the current research topic and study aims. A two –phase approach is necessary to ensure no major constructs or conceptual issues were overlooked during the development of the conceptual model and the subsequent testing.

Methods- Phase I .

Rationale for qualitative research. Phase I was used to build and support the instruments and proposed conceptual model for Phase II quantitative data collection, culminating in interpretation of the collective findings. Qualitative research methods are employed when little is known about a specific phenomenon and more in-depth examination of the concepts is needed (Denzin & Lincoln, 1994). Semi-structured interviews were used to explore STNA intent to stay and the factors that influence their decision-making including organizational factors, basic psychological need

fulfillment, and physical and psychological health and well-being. Other researchers have successfully applied qualitative methods in studies utilizing samples of STNAs (Grey et al., 2016; Kusmaul & Bunting, 2016; Lung & Liu, 2016).

Sample sizes for qualitative research are generally smaller than those necessary for quantitative research studies. With qualitative research methods, more data is not necessarily indicative of better quality or new information (Denzin & Lincoln, 1994; Mason, 2010; Creswell, 1998; Morse, 1994). Qualitative research is an iterative process where sample size and validity are determined by saturation. Saturation is achieved when the collection of new data via new participants does not yield further understanding or new perspectives on the issue being studied. While there is no definitive sample size for reaching saturation, research suggests a range of between 10-40 participants. This research followed the guidelines of phenomenological qualitative research, which posit that when no new information emerges data collection will end (Denzin & Lincoln, 1994; Mason, 2010; Creswell, 1998; Morse, 1994).

Recruitment. Following Institutional Review Board approval, potential participants were recruited via flyers (Appendix B) distributed at six HCR ManorCare for-profit skilled nursing facilities in northwest Ohio. This site was chosen for recruitment due to its for-profit status, and due to the fact that it is a leading provider of short-term, post-hospital services and long-term care with a network of more than 500 skilled nursing and rehabilitation centers, memory care communities, assisted living facilities, outpatient rehabilitation clinics, and hospice and home health care agencies across the United States. The facilities from which participants were

recruited vary in size from 50-126 beds and all participate in Medicare and Medicaid. The diversity in regards to bed size, location, and patient demographics strengthened the likelihood that broad spectrums of employee experiences were captured in the interviews.

Eligibility criteria were based on National Institutes of Health (NIH) available data on STNA employment (Centers for Disease Control and Prevention [CDC]: National Nursing Assistant Survey [NNAS], 2004). Participants must have been over the age of 18 years, able to speak English, have no restrictions on their certifications to work within a skilled facility due to abuse or neglect, and must have been employed as a nursing assistant for at least one year at the time of the survey. The eligibility criteria were developed to improve the likelihood that findings will accurately reflect the common experiences of STNAs. The eligibility requirement of tenure of one year or greater reflects national data, which indicates that the majority of nursing assistants have been employed for a year or longer. The age eligibility requirement (18 years or older) reflects the national demographic trends of nursing assistant employment. Nationally, individuals between 18-24 represented approximately 20% of STNAs in the workforce (National Center for Health Statistics: National Nursing Home Survey [NNHS], 2008).

Procedures. Potential participants were directed to call a number on the recruitment flyer or send an email or SMS text message to the researcher expressing interest in participation. The researcher conducted a telephone eligibility screening (Appendix C) with each participant to ensure that they were 18 years or older, able to speak English, had worked as an STNA for at least one year, were certified and had

no practice restrictions, and were willing to discuss their experiences in a face-to-face interview that was audio recorded. Participants were also given an informed consent document to be signed and a description of the purpose of the study (Appendix D). Before interviews were scheduled, the potential participants were told that the research study was investigating the experiences, relationships, and well-being of nursing assistants who are employed at for-profit skilled nursing facilities. It was explained that the researchers were interested in understanding the relationships between nursing assistants and the people they interact with most at work and how those experiences impact their health and well-being. The potential participants were also informed that if they met the eligibility criteria and they wished to participate, they would be one of at least 10 participants interviewed for 20-30 minutes and that the interviews would be audio-recorded for later transcription. Assurances that participation was voluntary and could be terminated at any time without penalty were also given. The incentive for participation ($20 Kroger gift card) was described and participants were informed that they would receive payment even if they chose to withdraw from the study after the interview had begun. Participants were informed that their responses would not be identifiable and that any identifiers or names used in the interview would be redacted during transcription. Finally, the researcher reviewed the study protocol and answered any questions that the potential participant had about the purpose of the study and/or study procedures.

If individuals successfully met eligibility criteria and were still interested in participation, interviews were scheduled. Individuals who agreed to participate were scheduled for a specific day, time, and location. Participants were sent a copy of the

informed consent form either by mail or email, based on their preference, to review prior to their scheduled interview. Participants had the option to sign the consent form and bring it to the interview, or sign a copy provided to them at the interview. To minimize attrition, periodic email, text, or telephone reminders were sent the week of and day prior to the interview.

Individual, face-to-face interviews were conducted by the researcher at a location of the participant's choosing, either a public library near their work site, at their work site, or in a private office at the University of Toledo. Upon arrival, participants were greeted by the researcher and directed to review and sign the consent form. They were given the opportunity to ask any questions at that time and reminded that they can also ask questions during and after the interview. Once written consent had been obtained, participants completed a brief demographic questionnaire. Next, the participant completed a 20-30 minute semi-structured individual interview. All interviews were audio recorded for later transcription. At the end of the interview, the participant was thanked for their time and given a $20 Kroger gift card. Recordings were immediately downloaded and stored on a password-protected computer in the locked office of the researcher. Once audio recordings were transcribed all original recording files were deleted from the device and researcher's computer.

Measures: Demographic questionnaire. The demographic questions and response options were derived from the United States Census questionnaire, and national data on nursing assistant demographics (Bureau of Labor Statistics, U.S. Department of Labor, 2014; United States Census Bureau, 2017). A nine item demographic questionnaire was used to assess participant age in years, gender, race,

ethnicity, marital status, highest level of education, additional training opportunities, and tenure at the current facility (Appendix E).

Age. Age was assessed using one open-ended item that asked, "What is your age in years?

Gender. Gender was assessed using one item that asked, " What is your gender?" Response options included, Male, Female, Transgender, prefer not to answer, and other (please specify).

Race. Race was assessed using one item that asked, "With what race do you identify?" Response options included, White, Black or African American, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, Asian, Prefer not to answer, and Other (please specify).

Ethnicity. Ethnicity was assessed with one item where participants were asked, "With what ethnicity do you identify?" Response options included, Hispanic or Latino, Non-Hispanic or Non-Latino, and prefer not to answer.

Marital Status. Participants' marital status was assessed using one item that asked, "What is your marital status?" Response options included, Now Married, Widowed, Divorced, Separated, Never Married.

Education. Education was measured using two questions. The first concerning education level asked, "What is the highest level of education that you have completed?" The second asked, "Have you received any additional job training through your workplace." The response option was "Yes" or "No."

Tenure. Job tenure was measured with a single question that asked, " How long have you worked as a nursing assistant at your current facility?"

Interview guide. A semi-structured interview guide was developed based on a review of the literature and constructs from the SDT and Basic Psychological Needs meta-theory. The three basic psychological needs assessed were: 1) *Autonomy* defined as "self-rule" actions that are self-initiated and self-regulated in relationship with one's goals; 2) *Relatedness* defined as a sense of belonging and feeling significant in the eyes of others, not according to position or status, or feeling connected to others; and 3) *Competence* defined as the experience of mastery, challenge and engagement in the activities that may serve to broaden one's capacities or one's behavior (Deci et al., 2001; LaGuardia, 2009; Trepanier et al., 2013).

The specific interview questions were developed for the purpose of examining the salience of the proposed model concepts, including basic psychological need fulfillment, among participants and to determine if there were any contributing factors to intent to stay that were not represented in the preliminary conceptual model (Appendix F). The interview guide covered the following domains:

1) psychosocial stressors that influence intent to stay in a position;

2) the influence of health and well-being on intention to stay; and

3) recommendations to improve the work environment

The specific domains and corresponding interview questions are described below:

1) Psychosocial Stressors**.** Psychosocial stressors were examined to provide insight into the salience of intrinsic factors and basic psychological needs (competence, relatedness, autonomy) as applied to this population within skilled nursing facilities. Questions and prompts to ascertain the types of psychosocial stressors and the corresponding basic psychological need fulfillment experienced by STNAs included the

following:

Question 1: You have to perform a lot of different caregiving activities as a nursing assistant. Describe for me how well prepared you feel to do your job?

Prompt: How confident are you while you are performing your job related activities? **(**Competence)

Question 2: Now, I want to talk about your accomplishments at work. Describe for me a time that you felt proud at work?

Prompt: What about it made you feel proud? How did others react? **(**Competence)

Question 3: What are some differences you experience in your interactions depending on who you are working with?

Prompts: For example, are your relationships different with nurses compared to supervisors or residents? Would you describe your workplace relationships as positive or negative? How does this affect you ? (Relatedness)

Question 4: Now, I would like to hear more about your job and day-to-day work life. Please tell me a little bit about your ability to make choices related to the care of a resident.

Prompt: How would you feel about being given more responsibility to make care decisions? (Autonomy)

2) Physical Health and Psychosocial Well-being**.** Participants were asked about their physical and mental health and the relationship health had to their work via the following questions:

Question 1: How would you describe your physical health?

Prompt: Do you have any specific physical health issues or concerns; this can include things like diabetes and chronic pain?

Question 2: How do you think your work life affects your physical health?

Prompt: What about how your work life affects your mental health?

Question 3: Now, describe your mental health, this can include things like stress or feeling overwhelmed.

3) Recommendations to Improve the Work Environment. Factors influencing organizational experiences among STNAs were investigated using the following questions:

Questions: Finally, I want to talk about what you like and don't like about your job. Are there any changes you would like to see made? If you could make a recommendation to improve your life at work, what would that be?

Phase I data analysis. The researcher analyzed all qualitative data with the primary framework for qualitative data analysis derived from Morgan (1997). Data analysis addressed validity of Phase I data by adhering to the standards of credibility, authenticity, criticality, and integrity (Whittemore, Chase, & Mandel, 2001). Each interview transcript was independently analyzed for recurrent themes and specific quotes within each theme. Themes and findings from individual transcript analysis were compared across participants. The final coding scheme consisted of broad categories and subcategories and was applied to the data through annotation of the transcripts with numeric codes to index the categories (Denzin & Lincoln, 1994; Morgan, 1997).

Methods-Phase II.

Use of online survey methodology. Online surveys are often less costly, provide faster returns, and are easier for participants to complete when compared to paper-pencil questionnaires. However, online surveys have been found to have markedly lower response rates than face-to-face surveys. Despite lower response rates, Fricker and Schonlau (2002) identified that while, at times, higher response rates and more complete survey data can be gleaned from face-to-face administration of surveys, the results are often biased by social desirability of response. Whereas, using an online survey can elicit more accurate responses to sensitive topics. Web survey data are also directly downloaded into an analytic software database that prevents human error in data entry (Fricker and Schonlau, 2002). The current research adhered to the applicable best practices for increasing response rates for online surveys identified by Zuniga et al. (2004) and Quinn et al (2002) which include; pushing the survey (easy access), sending frequent reminders, persuading respondents that their responses will be used, providing rewards, extending availability of the survey, and providing assurances of anonymity. Fricker and Schonlau (2002) also identified that better response rates may be achieved by reaching out with mailed participation invitations.

Recruitment. Following Institutional Review Board approval, potential subjects were recruited using the Ohio Department of Health (ODH) Nurse Aide Registry. The ODH Nurse Aide Registry contains a list of STNAs that have passed the written and skills test criteria to be certified for work in long-term care. Inclusion criteria included being age 18 years or older, having the ability to read and write in

English, and being employed with a for-profit SNF for one year or more. Individuals who appeared on the Nurse Aide Registry for Abuse, Neglect, and Misappropriation were eliminated from consideration. A random recruitment sample was drawn from the remaining names on the list. Eligibility criteria for participation was based on existing demographic data on STNAs from the National Nursing Assistant Survey (NNAS), which has enabled comparisions between the current research results and national data to be made (Bureau of Labor Statistics, U.S. Department of Labor, 2014; United States Census Bureau, 2017; CDC:NNAS, 2004)

Procedures. The researcher obtained the registry list of State Tested Nursing Assistants from the Ohio Department of Health and eliminated those individuals who were featured on the Ohio Department of Health (ODH) Nurse Aide Abuse and Neglect Registry. After eliminating STNAs barred from clinical work due to abuse or neglect of patients, Microsoft Excel software was used to generate a random sample of 3000 potential subjects. The sample was mailed a total of two recruitment postcards at separate intervals two weeks apart (Appendix G). Due to low response rates to the initial waves of recruitment, an additional 4150 participants from the registry that met the above inclusion/exclusion criteria was generated. The second randomly selected group registrants who met all the above inclusion/exclusion criteria received a one-time mailing of the recruitment postcard one month after the initial recruitment waves. The second random sample contained no duplicate registrants from the first random sample. The postcards mailed to all 7150 individuals included information about the nature of the research, study personnel, contact information for

the researcher, and a link (and scan code) to the Qualtrics questionnaire that was used during data collection.

In order to reach the recommended sample size for Structural Equation Modeling (SEM) of 200 participants, this study over recruited to account for facility type and place of work in order to obtain a sample of STNAs working in for-profit facilities. Based upon data from the Bureau of Labor Statistics, of the 7150 individuals randomly sampled, it was estimated that approximately 2052 nursing assistants would be employed at for-profit skilled nursing facilities; and could potentially be eligible and respond to the questionnaire (41% of nursing assistants are employed in skilled nursing facilities 70% of those facilities are for-profit). The focus on for-profit facilities was based on the previous literature indicating lower retention and higher turnover rates within for-profit facilities (Bureau of Labor Statistics, U.S. Department of Labor, 2014; United States Census Bureau, 2017; CDC:NNAS, 2004). The anticipated return rate of 20%, should have yielded approximately 410 completed questionnaires from STNAs employed at for-profit skilled nursing facilities. However, following the second wave of first postcard mailing (3000 x 2) it was clear that response rates were going to be very low with this population. A second postcard mailing (4150 x1) to a new, random sample of registrants yielded only a minimal amount of responses.

Individuals from the random sample that received a post card and chose to respond followed a link that directed them to the survey website. The survey consisted of 88-items and took approximately 10-20 minutes to complete. Upon following the link, the first page contained a brief summary of the research purpose

and a study information sheet that reviewed consent. Potential respondents were then directed to a series of eligibility screening questions (Appendix H). These screening questions included;

Question 1: Does your facility provide skilled nursing care?

Question 2: Have you been an STNA for more than one year?

Question 3: Is your facility a for-profit or corporate facility?

If potential respondents answered "No" or "I don't know" to any of the screening questions, they were informed that they were ineligible to continue to the survey. Those who were eligible were directed to an additional information sheet that included an option for agreeing to participate or discontinuing participation. Once an individual clicked "agree," they were directed to the questionnaire. Once the questionnaire was completed, respondents also had the option to enter into a raffle via e-mail for a $50 (10) Kroger gift card.

Phase II measures. Phase II model testing began with the incorporation of any additional causal factors identified during Phase I interviews. The Organizational Citizenship Behavior Checklist was added to the Organizational Factors domain to account for organizational experiences not previously identified (Morrison & Robinson,1997). The following previously validated and reliable measures were combined into a larger questionnaire of STNA intention and motivation guided by the proposed conceptual framework (Appendix I).

Standardized measures. 1) The Basic Psychological Needs at Work Scale (BPNWS) is a 21-item questionnaire concerning an individual's workplace motivation and experiences of basic psychological need satisfaction. Each item in the

21 item scale corresponds to one of the three basic psychological needs of autonomy, relatedness, or competence. The items within each basic psychological need sub-scale are scored by averaging the item responses after reverse scoring of any negatively worded items. The questionnaire had an internal consistency (Cronbach α) coefficient of 0.89 (Baard, Deci, & Ryan, 2000; Deci et al., 2001).

2) The Rosenberg Self-Esteem Scale is a nine-item questionnaire that assesses an individual's experiences of self-esteem and self-image. The items are scored on a four-point Likert scale from strongly agree (1) to strongly disagree (4). All item scores are kept on a continuous scale and higher scores indicate higher levels of self-esteem. The questionnaire had an internal consistency (Cronbach α) coefficient of 0.77 (Rosenberg et al., 1965; Watson, Clark, & Tellegen, 1988).

3) The Organizational Citizenship Behavior Checklist (OCB**)** assesses acts directed toward an organization or coworker that benefits either, or both, and helps with work related issues. The OCB uses a 5-point frequency scale ranging from "never (1)" to "everyday (5)." Scores were computed by summing responses across items. A total score is the sum of all response items. Internal consistency reliability (Cronbach α) is .89 (Robinson & Morrison, 1995).

4) The Organizational Commitment Scale (OCS- AC) is a measure of the antecedents of commitment to an organization. This scale incorporates an Affective Commitment sub-scale that is a measure of an individual's emotional attachment to the organization for which they work. Individuals were directed to rate their agreement with a series of eight comments on a seven-point Likert scale from "not at

all true (1)" to "very true (7)". The questionnaire has an internal consistency (Cronbach α) coefficient of 0.82. (Allen & Meyer, 1990).

5) Intent to stay was measured through items adapted from Price and Kim (1993). These include; " I plan to leave this facility as soon as possible" (negative), "Under no circumstances will I voluntarily leave this facility before I retire" (positive), "I would be reluctant to leave this facility" (positive), "I plan to stay at this facility as long as possible" (positive). Each of the questions was answered using a five point Likert scale with responses ranging from strongly agree to strongly disagree. Scores ranged from five to one (5=strongly agree for positive items). Scores were reversed for negative item. The four responses were scored to create an index indicating greater or lesser intention to leave a place of work. The measure has an internal consistency (Cronbach α) coefficient of 0.90. (Price & Kim, 1993).

Demographic and control variables. Demographic items assessed respondents' age, gender, ethnicity, level of education, marital status, and job tenure. Participants were asked to identify their age in years. The above questions and response options were derived from census data and national data on nursing assistant demographics. Specific items asked the following:

1) Age. Participants were asked to identify their age in years

2) Gender. Gender was assessed by responses to the question, " What is your gender?" Response options included male, female, transgender, prefer not to answer, and other. If respondents chose "other", they were asked to please specify.

3) Race. Race of respondents was be assessed by a single question that asked, "With what race do you identify?" Response options included White, Black or African American, prefer not to answer, and other. If respondents chose "other" they were asked to please specify.

4) Ethnicity**.** Ethnicity was assessed with a single item in which participants were asked, "With what ethnicity do you identify," Response options included Hispanic or Latino, Non-Hispanic or Non-Latino, and prefer not to answer.

5) Marital Status. Marital status was assessed by a single item that asked, "What is your marital status?" Response options included Married/Living as Married, Widowed, Divorced, Separated, Never Married.

5) Education Level. Two items assessed education level. The first asked, "What is the highest level of education that you have completed?," The second asked, "Have you received any additional training through your workplace?"

6) Tenure. Tenure of STNAs was assessed with two separate questions including, 1) "How long have you worked as an STNA?," and 2) "How long have you worked as a nursing assistant at your current facility?"

Phase II Data Analysis.

Procedures for managing missing data. Within IBM® SPSS® (Version 21.0) , the data were cleaned and respondents who had greater that 10 missing response items were eliminated from the data set. Data cleaning resulted in a total of

32 respondents. Any missing data remaining within the responses of the 32 participants was imputed using the means of all available responses.

Descriptive statistical tests. The researcher performed descriptive statistics to examine means and frequencies for demographic variables and the total scores for each measure used. Normality of continuous variables was assessed and the variables were all found to be normally distributed. Exploratory factor analysis examined the validity of each independent questionnaire and indicated that the questionnaires were assessing the intended concepts.

Inferential statistical tests. Simple Linear Regression and Multiple Regression analyses using IBM® SPSS® (Version 21.0) statistical package were performed to examine predictive concept relationships and their relationship nursing assistants' intention to stay. This research was designed to enable model testing via Structural Equation Modeling (SEM) using MPlus to analyze multiple structural relationships, understand the directional relationships and interconnectivity of constructs, and the relationships between latent and measured constructs. Due to the small sample size in this study, the ability to perform SEM analyses was inhibited and a full examination of the model in its entirety was not performed.

Chapter 4

Results

Phase I.

Participants. Ten State Tested Nursing Assistants (STNAs) completed a one-time, semi-structured, face-to-face interview. Participants included 9 female STNAs and one male STNA, with ages ranging from 20 years old to 57 years old (mean=38 years). Five participants identified themselves as White (n=5) three identified as Black, one identified as Hispanic, and one identified as two or more races. See table for complete demographic information (Appendix J[TABLE 1]). All participants had been working in their profession for at least one year, with three individuals reporting that they had worked between three and five years and six individuals reporting having worked for six or more years. Five had worked at their current facility for less than a year, three for at least one year, and two for two or more years. The majority of participants reported taking some college courses (less than an associate's degree), while four participants reported holding an associate's degree or greater.

Intent to stay. Two broad thematic categories that influenced participants' intentions to stay emerged from the data: (1) factors that supported STNAs' intentions to stay in their current position, and (2) factors that threatened STNAs' intentions to stay in their current position. Within the category of supporting intentions, four sub-themes emerged: (1) having work related self-confidence and (2) experiencing positive caring relationships (3) feeling workplace appreciation, and (4) willing to go above and beyond. The themes that threatened intent to stay included: (1) seeking career advancement,

(2) experiencing difficulty providing person centered care, (3) feeling unsupported by supervisors, (4) being frustrated by limited teamwork.

The findings indicated that the fulfillment of the basic psychological needs of relatedness and competence were salient among participants, however, autonomy did not emerge as a salient factor related to intent to stay in the current sample. For each theme, additional quotations and construct relationships are provided in a table (Appendix K[TABLE 2]).

Factors that Support STNAs' Intentions to Stay in their Current Position.

Having work-related confidence. All ten participants reported that feeling confident about their clinical skills influenced their overall feelings of workplace competence. Commonly, participants described feeling uncertainty as they prepared to meet the job demands upon entering the profession, but suggested that their self confidence grew as a result of time spent working as an STNA. The following quote illustrates this perspective:

> The class is only like two or three weeks, five weeks at the most. And, it's really you're learning to read. You're not actually doing hands on, and they teach us to do these things on a mannequin. Not a real person. So no, it doesn't prepare you, because no mannequin can prepare you ... for what you're going to…so no, I did not feel prepared right out of school. You really learn the job on the job. If that makes sense… After you do something more than one time, you pretty much pick it up. But everything they teach us in the school, I'm not saying it's wrong, because you need it in order to know the logical part of it, but it doesn't really prepare you. So you really basically learn it as you go. (Participant 1)

Further, participants described their confidence continuing to increase the longer they worked clinically, for example:

> I think looking back, I was quite prepared, but you only get so much working knowledge having a one, or a two week experience with patients in a nursing class. You just learn so much more as you interact with them [patients] on a day-to-day basis...The more you do something, the more comfortable you become with it. (Participant 10)

The general consensus across interviews was that opportunities for training and on-the-job practice were critical components of building confidence in their clinical skills and abilities. Participants described requesting opportunities to practice skills in order to prepare for situations when there would be no direct supervision. In addition, all of the participants mentioned that structured opportunities for on-the- job training provided by their employer contributed to their feelings of self-confidence, which in turn, contributed to feelings of workplace competence.

Although most participants described having limited decision-making opportunities in regards to provision of care, they were willing to accept additional responsibilities if they received the appropriate training. For example, one participant stated a willingness to take on additional responsibilities as long as adequate training was provided, "I would definitely need more training, but once I had more training I could, for sure" (Participant 1).

Participants also discussed the importance of the hierarchy of care and highlighted that nursing assistants should not take on extra duties delegated to them if they are not properly trained or educated because doing so could compromise patient outcomes.

Experiencing positive caring relationships. All participants indicated that ensuring residents' happiness and well-being was their overarching workplace purpose

and indicated that feeling as though they did so was a primary source of job satisfaction and a reason for continuing to work in the profession.

All participants indicated that they felt happiest with their job when they felt they were providing quality, person-centered care. One participant described the caregiving experience stating, “Knowing that I provided the best care possible for somebody and helping somebody, seeing a difference, that makes me happy ” (Participant 8).

The majority of participants also identified feelings of being the primary source of positive contact for the residents, and finding joy and satisfaction in being an important part of residents’ lives. One STNA remarked:

> I like interacting with the patients. I like knowing that I made a difference their day. I like seeing them happy. I like knowing that they were well-cared for. I like knowing that ... some of the basics were taken care of: that they were clean, and dry, and well-dressed. (Participant 9)

Feeling workplace appreciation. The STNAs in this research cited a feeling of belonging and pride in oneself when they received praise from residents, resident families, and coworkers concerning their workplace performance. The acknowledgments ranged from compliments of a job well done to recognition by supervisors with additional provision of tangible rewards such as a gift or plaque. For example, one participant reported, “ Probably my proudest moments have been the people who ask for me personally…” (Participant 5).

Most often, participants indicated that appreciation came in the form of verbal acknowledgements or praise regarding their performance. This perspective was described by one participant who stated:

> I have people that, either my co-workers compliment me or the people that I work for, just saying that, "Thank you for helping me with this and thank you for being

> there." More than half of the STNA's identified feeling supported at and recognized at work in simple ways, "I have people that, either my co-workers compliment me or the people that I work for, just saying that, "Thank you for helping me with this and thank you for being there. (Participant 3)

Some participants identified that they also received some tangible rewards. Among the participants who had received a tangible acknowledgement (e.g. gift, plaque, certificate of recognition) in addition to verbal recognition, the tangible reward was viewed as less important than the underlying meaning (i.e. recognition of competence/performance). The lower importance placed on tangible rewards was evidenced by one participant who stated:

> The thing is now that you get this badge that says "I brake for call lights," so if you witness another employee not getting that call light, you get to take that badge from them. When you take that badge, you turn it in for a ticket and at the end they do a drawing for an iPad, which isn't necessarily all about the iPad to me…

She went on to explain the importance of the badge in terms of patient care, and further illustrate how her motivation was based on providing quality care and working as a team, rather than on the incentive:

> " I think they should keep trying stuff like that… You're going to keep getting your badge taken away from me because I'm going to keep taking it. My challenge to you, is for you to take mine, and it's not going to happen… I'm helping you become a better person…We just started that [call-light incentive]…and [I] would love to see something like that continue, I really would, because I think it would get people off their butts and answer those call lights more often. (Participant 3)

Willing to go above and beyond. In addition to the caring relationship, subjects identified "going the extra mile" as an important factor that influenced intent to stay. For example, one participant stated:

> I listen to a radio station and it says, "One tool sharpens another," That's going to be my philosophy for it [referring to their job]… I don't care if this is my hall or your hall, we're a team. This isn't my job, your job, we all work together to accomplish one goal and that would be to answer all those call lights. (Participant 3)

In addition, subjects described going "above and beyond" their prescribed duties in order to assist co-workers and the facility at large. Common examples of this theme included taking on extra shifts, answering call-lights of patients not assigned to the participant, covering shifts when someone called off, working over-time if the facility was short staffed, and being supportive of coworkers who were going through hard-times personally. One participant provided the following example:

> We kind of pretty much have that family environment. If something's going on with a nurse or an aide, or anybody. We're all concerned and we actually show care. One of our nurses, her son passed, and so it all spread to us and every all of the staff and we all reached out to help her. Someone else had a baby. We all brought in baby clothes. Kind of had our own little baby shower for her at work. (Participant 8)

In addition, participants also indicated behavior going "above and beyond" to meet residents' needs. Most often this included opportunities for socialization and attempts to make the resident feel happy and comfortable beyond specific required care tasks. One participant stated:

> If I can do something special for them, [I'll] go out of my way to make them happy…," and " I just had this one lady…[she] said, 'Please come back, nobody ever comes back' I was like, 'Of course I'll come back.' Then, when I came back, she was almost in tears because nobody helps her, they just ignore her. **(**Participant 5)

Factors that threaten STNAs' intention to stay in their current work

Seeking career advancement. Nearly all of the participants revealed that they had wishes or current plans to seek additional training or schooling for professional

advancement. The STNAs interviewed revealed that they were working as an STNA to receive clinical experience, had a desire to continue on to nursing school, were currently enrolled in a nursing program or other higher education, or were seeking alternate training to completely change careers. When asked where they saw themselves in five years, most participants expressed a desire for continued career advancement.

One participant spoke about her career aspirations and stated:

> I would like to have my RN degree, then get my Master's so doing it in stair steps. I see myself being a registered nurse and, hopefully, living somewhere warm. (Participant 4)

An additional participant described in detail the actionable steps she was taking toward career advancement and stated:

> I'm going to be attending classes. May 1st is my first day of class for LPN and that's 18 months and then they have a bridge LPN to RN and then I'm going to try to get my BSN. (Participant 1)

Experiencing difficulty providing person centered care. The STNAs interviewed also revealed frustration with the staffing ratios within the for-profit facility structure. The participants felt as if the ratio of 12 or more patients to one STNA made it impossible to develop and cultivate those interpersonal relationships with residents that are essential in the provision of quality care. One participant described frustration with low staffing limiting her ability to develop the important caring relationships by stating, “I don't like it when we're short of help. That is hard because you have 20-25 residents and that just doesn't give enough time ” (Participant 2).

Similarly, another participant described the importance of staffing in terms of the physical demands of the job and reflected on the impact that staffing ratios have on patient care.

> I get my job done, but I don't get to spend as much time with them [residents]. I think the personal attention gets lost a little bit. I do my job efficiently and effectively for sure, but it's kind of quick so you don't get to really spend the time and probably make them feel as comfortable. (Participant 3)

Feeling unsupported by supervisors. The STNAs interviewed identified minimal and unsatisfying interaction with nurses and supervisors in the workplace. These uncaring and impersonal interactions included no engagement and non-recognition of the STNA as a valuable team member, indifference and condescension from nurses and supervisors, and interaction based solely on punitive and training purposes. In a subordinate position where the STNAs feel condescension and indifference, they are unable to attain feelings of belonging and do not feel significant in the eyes of others, especially their superiors. When asked who they interact with most and least, the participants identified limited interaction with one participant saying, “Probably every single higher up have never notice[d] [workplace accomplishments], because they don't have time to notice, or don't care ” (Participant 5).

All of the STNAs spoke to the “indifference” to their work as demonstrated by supervisors who either did not have the time or were not engaged enough to touch base with the STNAs during the day. An additional participant stated:

> As an STNA, you don't have much interaction with the administration, at least I didn't. It's a combination. Yeah, I mean some nurses just go to nursing school only to care for people ... They don't go to nursing school to be a leader. And so if you have a nurse that just doesn't care about being a mentor, doesn't care about being a leader, that's tough. (Participant 10)

Being frustrated with limited teamwork. The STNAs interviewed were asked about the factors that frustrated or bothered them during their work experiences. A majority of participants identified that individuals, specifically other STNAs, not acting as team players or who were not engaged with their work was one the most frustrating aspects of their job. The participants identified specific instances of other STNAs not engaging when they needed help, ignoring call lights because they were not "assigned" those patients, or working simply for the paycheck without any demonstrated dedication to patient care. One STNA stated:

> It's very frustrating, people who want a paycheck come, people will sign up for shifts, pick it up and then not show up, not call, nothing, and then not get written up for it. (Participant 5)

Compensation was mentioned by three of the ten participants as something that was lacking and a recommendation for workplace improvement, however, it was not identified by those participants as being a determining factor in their decisions to continue their employment at their current facility. One participant went on to identify that the compensation cannot make up for a poor work environment:

> You sometimes get a job where they'll pay you more but the facility is really nasty, you don't have what you need as far as supplies, just towels and soap. But they'll pay you more to deal with the conditions. Whereas, you go to a nicer facility and they pay you less because they feel like you're in a good work environment. (Participant 4)

Phase II-Results

Results by research hypothesis. Results for each research question and hypothesis are reported in the hypothesis table (Appendix N [TABLE 5]). In addition, results of Phase I revealed the importance of Organizational Citizenship Behavior (OCB) as an organizational factor influencing STNA intent to stay. Themes reflective of

STNAs' frustration with other coworkers not engaging in teamwork and the importance of going beyond specific job duties, demonstrate the importance of supportive interpersonal relationships in the workplace as a measure of work engagement. As such, a measure of OCB was added to the organizational factors domain.

Due to the small sample size in this study the researcher was unable to undertake an in-depth examination of the proposed directional and correlational relationships as proposed by the conceptual model. Post hoc power analysis found the multiple linear regression to have a power of 34 percent. Structural equation modeling (SEM) using MPlus software was not performed as intended due to not reaching the minimum required sample size (200) for analyses. The following results examine experiences and relationships between concepts however; inferences about total model fit could not be made at this time. Results presented below summarize descriptive and inferential findings based on the analyses that were performed.

Participant demographic characteristics. Subjects in the current study were primarily female (n=26, 81.3%), the majority were white (n=25, 78.1%), non-Hispanic or Latino (n= 27, 84.4%), and between the ages of 25-54 years (n=24, 75.1%). Most respondents indicated that they had worked as an STNA for two years or longer (n= 28, 87.7%). See Table for complete demographic information (Appendix L [TABLE 3]). A comparison of demographic data from the current study respondents (n=32) to national demographic data from the National Nurse Assistant Survey (2004) suggests that study participants did not significantly differ in demographic characteristics (CDC: NNAS, 2004).

Descriptive statistics. Each independent measure used in the survey was analyzed by averaging the combined items from that specific measure to produce a mean total score. The mean total scores demonstrated the level of experience of the concepts being measured within the possible range for each measure. Higher values were indicative of an increased level of experience of the concepts being examined.

Affective Commitment. The Affective Commitment measure had a possible total score ranging from 8-56, with the higher scores indicating emotional attachment to their organization. A mean=30.1, Standard Deviation (SD)= 5.3 was found for respondents in the current study.

Organizational Citizenship Behavior. The Organizational Citizenship Behavior Checklist had a possible range of total scores from 20-100, with the higher the score the more altruistic behavior demonstrated by the respondent in the workplace. A mean=72.1, SD=12.5 for respondents in this study was found.

Basic Psychological Needs at Work. The Basic Psychological Needs at Work Scale can have total scores ranging from 20-140, with higher scores indicating greater intrinsic fulfillment at work. In the current research, the Basic Psychological Needs at Work scale was found to have a mean= 95.2, SD = 20.1.

The Basic Psychological Needs at Work scale is also divided into three sub-scales for the basic psychological needs of autonomy, relatedness, and competence. Higher scores in each subscale are indicative of a greater level of need fulfillment for each of the basic psychological needs, independently.

The sub-scale scores for autonomy can have a range from 7-49 total points In this study, respondents had a mean=28.3, SD = 8.5.

The total score for the sub-scale measuring relatedness can range from 8-56 points. In this study, the total scores for respondents had a mean=40.1, SD=9.0.

The sub-scale for competence had a total score range from 6-42 points. A mean=32.1, SD=6.9 was found.

Intent to stay. The four-question intent to stay measure had a total score range from 4-20 points. Higher scores are associated with an increased likelihood to stay in their position. Respondents had a mean=11.6, SD=3.5.

Centers for Disease Control- Healthy Days Measure. Results showed that STNAs identified relatively high levels of self-reported physical health. The majority of respondents rated their health as "Good" (*n*=11, 34.4%),"Very Good" (*n*=11, 34.4%), or "Excellent" (*n*=6, 18.8%), with only four respondents rating themselves with lower overall health as "Poor" (*n*=2, 6.3%) or "Fair" (*n*=2, 6.3%).

Rosenberg Self-Esteem Scale. The Rosenberg Self Esteem Scale can have possible scores ranging from 10-40. Higher total scores are indicative of greater levels of self-esteem among respondents. Respondents in this study had a total score mean=21.8, SD=2.2.

Simple linear regression. Simple linear regressions were performed on each of the total score variables to identify any significant predictors of the dependent variable of intent to stay. Using a significance level of ($p \leq .05$), autonomy ($\beta = .234$, $p = .001$) and the number of anxious days ($\beta = -.165$, $p = .039$) were statistically significant predictors of intent to stay. Competence showed a borderline statistically significant relationship ($\beta = .174$, $p = .054$) with intent to stay. In addition, a statistically significant linear relationship between STNAs reported Affective Commitment to their place of work and

their engagement in Organizational Citizenship Behavior (β=.579, p=.001) was detected, however it did not significantly predict overall intent to stay. No significant relationships between basic psychological need fulfillment and self-reported health were detected.

Multivariate linear regression. The three variables (Autonomy, Number of Anxious Days, and Competence) that demonstrated a statistically significant or borderline statistically significant relationship to intent to stay were entered into a multiple linear regression model. Following an adjustment for autonomy, the effects of the other previously significant predictors were eliminated and shown to be no longer statistically significant. These results indicated that among the study respondents, autonomy was the only statistically significant predictor of intent to stay in their positions among STNAs in for-profit skilled nursing facilities (β= .200, p= .028). See regression table for complete results (Appendix M [TABLE 4]).

Chapter 5

Discussion

Findings from Phase I and Phase II suggest that factors influencing intent to stay are complex and variable. Among study participants in both phases of the research, intrinsic factors and basic psychological need fulfillment influenced intent to stay. Qualitative findings suggest that competence and relatedness were most salient while the quantitative data indicated that autonomy was the only significant predictor of intent to stay. These findings are consistent with previous research that revealed the importance of relationships and mastery of care tasks to STNAs (Gray et al., 2016; Mittal et al., 2009). In addition, earlier work has also shown similar variability in the importance and experiences of basic psychological need fulfillment stemming from situational and population specific issues (Deci et al., 2001; Decker et al., 2009; LaGuardia, 2009; Rubin et al., 2009). Ultimately, Phase I and II findings were consistent and corroborative with previous work examining the motivational contributors and experiences of STNAs in long-term care (Brown et al., 2014; Castle et al., 2007; Gray et al., 2016; Kusamaul & Bunting, 2016; Mittal et al., 2009). In addition to a better understanding of basic psychological need fulfillment among STNAs, the current research also revealed the concept of Organizational Citizenship Behavior (OCB), which was not included in the original model. This finding, while new to the current research, has been a concept expressed previously in research with STNAs in SNFs. Nursing assistants in a study by Kusamaul and Bunting (2016) also demonstrated altruistic workplace behaviors that went above and beyond specific job tasks.

In the current research, the experiences of relatedness and competence through workplace relationships and job tasks were identified as integral contributors to intent to stay. In terms of relatedness, both phases of research revealed the importance of relationships with residents and with coworkers as contributors to positive feelings toward the workplace. Similarly, Mittal et al (2009) found that those STNAs who *chose to stay* in their position did so due to intrinsic factors such as: being "called" to service, patient advocacy, and their personal relationships with residents and other interpersonal relationship building in the workplace (Gray et al., 2016; Mittal et al., 2009). In the current research, STNAs expressed that positive workplace relationships and supportive workplace culture were integral to their performance, need fulfillment, and their intent to stay.

Participants in the current research also identified experiences of competence fulfillment through their ability to demonstrate mastery in care tasks. Similarly, work by Decker et al. (2009), identified the importance of an emphasis on skill development to improve feelings of intrinsic motivation among STNAs (Decker et al., 2009). The structure and activities inherent in the STNA role provides them the opportunity to build relationships with residents and coworkers and demonstrate their knowledge and mastery of care tasks, which facilitates fulfillment of both relatedness and competence.

Conversely, the structure of STNA work does not provide the same level of fulfillment of autonomy through job tasks. Phase I findings provided no evidence supporting a thematic category that was reflective of either positive or negative experiences of autonomy. These findings were not unexpected due to the fact that experiences and opportunities for autonomy fulfillment among STNAs employed in

SNFs are limited. In addition, in Phase II, respondents identified autonomy as the basic psychological need in which they experienced the least fulfillment but it emerged as the most important predictor of their intent to stay. These findings suggest that while STNAs have the ability to express choice in the order in which care tasks are completed, their autonomy fulfillment may be inhibited by an inability to develop goal orientation and participate in activities that are self-regulated in terms of their career and the broader organizational functioning. Further, the directional relationship between autonomy and intent to stay suggests that increased fulfillment of autonomy in the workplace among STNAs could contribute to increased intentions to stay in their positions.

The current research has also identified the concept of Organizational Citizenship Behavior (OCB) as a salient and unexpected thematic finding resulting in adjustment of the proposed conceptual framework. Organizational Citizenship Behavior refers to behaviors undertaken by an employee that are outside their specific job duties or expectations. These behaviors promote organizational effectiveness and are not normally recognized by others, including the organization, so the behaviors are primarily in service and without expectation (Robinson. & Morrison, 1995). Similarly, earlier work also found that STNAs expressed a desire to go above the requirements or duties of their position by getting to know their patients personally and interact on a level beyond the physical care tasks (Kusamaul & Bunting, 2016).

Further, Phase II results revealed that the greater STNAs' affective commitment or emotional attachment to their place of work, the more likely they were to participate in OCB. Previous research and the current findings give further credence to the idea that STNAs may possess altruistic tendencies as an expression of intrinsic satisfaction and

affective commitment to their organization. However, if continually overlooked, OCB could cause distress (Robinson. & Morrison, 1995). This may be especially true if the individual STNA is operating in an organizational climate in which poor teamwork and limited supervisor support negatively impacts their affective commitment, intrinsic fulfillment, and intent to stay.

Contrary to national data on STNA health and occupational safety, STNAs in the current study identified no significant or reportable physical health problems as a result of their work. The higher self-reported physical health may be a result of specific training to prevent injury and the use of assistive devices that prevent lift related injuries. However, participants did report lower overall self-reported mental health and self-esteem, and experienced psychosocial stress related to their occupation. Participants described the difficulty with inconsistent assignment, patient illness and death, and low staffing as contributors to their poorer self-reported mental and emotional health.

Implications.

Implications for practice. Findings suggest the need for responsive strategies in SNFs to retain the STNA workforce. Based on the previous research and the current findings, a primary focus should be cultivating supportive workplace cultures. One approach would be implementing strategies that acknowledge STNAs as valuable team members and critical components of the provision of quality and person-centered care. In addition, the current research found that an inability to achieve autonomy fulfillment served as a detriment to STNAs' intent to stay in their positions. As such, SNFs should focus on providing broader opportunities for empowerment, providing opportunities for

training and professional development, involving STNAs in care planning, developing staff engagement initiatives, and providing opportunities for STNAs to contribute to organizational decision-making.

As a response to the ongoing retention issues within SNFs, an emphasis on addressing intrinsic determinants of intent to stay may serve as viable alternatives to increasing STNA retention. When considering that organizations often lack the resources to provide enhanced tangible rewards such as increased pay or benefits, efforts to increase satisfaction and commitment via strengthening intrinsic rewards have the potential to improve retention. Therefore, enabling consistent assignments that strengthen the caring relationship, involving STNAs in decision making processes both for patients and for the organization, and helping STNAs to develop career goals could enable them to grow within the organization and feel supported. Currently, state regulations have mandated involvement of STNAs in the care planning process as recognition of their integral role and knowledge in care provision. However, organizations should begin to take it upon themselves to build a structure of support to address the issues facing STNAs to demonstrate the understood value of STNAs within SNFs.

Implications for health education. Based on Healthy People 2020 and the current research, an emphasis on health education within the STNA curriculum would be an important first step to address the low self-reported health and quality of life, occupational hazards/stresses, and the caregiver stress associated with the role of STNA. Alterations to the STNA curriculum could focus on coping strategies, healthy workplace habits, and preventive strategies to enable STNAs to take control of their own health and complete their job tasks with an overall awareness of the physical and psychological risks

of their work and feasible mitigation strategies.

In addition, SNFs should provide wellness programming and health promotion resources (e.g. stress management, weight management, nutrition education, and fitness programming) for their STNAs who are often not offered benefits through their work and are at increased risk for health disparities due to multiple minority status.

Due to the fact that STNAs within SNFs have high rates of injury, job stress, and low income and benefits, SNFs should provide health promotion and education resources that enable STNAs to take preventive steps to protect their health and make good choices in and out of work to decrease the need for medical services as a result of illness or injury. These can occur in the form of fitness programming, nutrition education classes, stress management education, caregiver support groups, chronic disease management education, and education on healthy habits and healthy coping skills.

Finally, SNFs should also provide STNAs with resources and support to address the emotional and psychological strain associated with their roles as paid caregivers. Often, STNAs experience psychological distress as a result of their role as caregiver including distress associated with a patient death and illness. Skilled nursing facilities should seek to have dedicated staff to support the psychological needs of their direct care workers and provide STNAs with safe and healthy grief and bereavement resources and coping mechanisms. Provision of health education resources via a health educator or health promotion specialist, in an online or in-person format, could provide STNAs with the support to safely reduce their stress, improve coping mechanisms, and enable overall access to increased physical and psychological health. In addition, STNA staff who are

supported both personally and professionally will be well equipped to provide quality patient care to the aging population.

Implications for research. In terms of the future direction of research on STNAs within SNFs, it is important to take a closer look at the construct of autonomy and how it pertains to, and is experienced by, STNAs. Due to the fact that Phase I and Phase II findings identified disparate experiences and awareness of autonomy at work among the same population indicates a limited understanding of the construct as it pertains to STNAs within SNFs.

In addition, future work with this population will need more face-to-face interaction and facility level participation to better engage with potential respondents. Challenges associated with participant recruitment among this population need to be addressed. This should include a reassessment and remedy to the current strategies used to recruit STNAs as participants in research. Innovative approaches may include the development of new methodologies or technologies (e.g. virtual/remote interviewing, online diaries, interactive smart-phone apps) to better access and involve STNAs and similar populations who experience situations that inhibit their involvement in research such as personal responsibilities, time limitations, and other confounding circumstances.

Finally, researchers should use the findings of the current research to focus on developing responsive intervention strategies to increase retention of STNAs in SNFs. There should be an emphasis on efforts to use the current findings and gained understanding STNA workplace experiences to develop intervention strategies in collaboration with SNFs providers. Making steps toward actionable research is essential

as the issues with retention continue to persist along with the need for STNAs within SNFs in response to the aging population.

Strengths and limitations.

Strengths of this research exist in the mixed methods approach to data collection. The qualitative findings of Phase I were consistent with previous research, which suggests validity. In addition, findings were able to be triangulated via comparisons to existing research literature and the Self-Determination Theory and basic psychological needs theory, which further demonstrates validity, transferability, and trustworthiness of the data. The data collected mirrors national data from the National Nursing Assistant Survey (2004) in the following areas: demographics, job tenure, time at facility, issues with management and supervision, resident relationships, organizational commitment, workplace environment, and health status. This indicates at minimum, the ability to make comparisons in terms of experiences to better understand this population. The low response rate may also be reflective of the low retention phenomenon, in that those that responded are those (or similar to those) who have intention to stay, which makes those responses valuable to future retention research.

Both phases were limited by geography, for-profit chain ownership, small sample size, and social desirability in response. In addition, although the respondents mirrored national data, no oversampling was done to over recruit for diversity. Further, there is evidence to suggest that internet based surveys achieve lower response rates across the board except in special circumstances where the population is more accustomed to using the internet and participating in surveys, or is a specialized sub-group such as university-

based populations (Fricker & Schonlau, 2002). Potential issue with measurement may have also limited the study findings in terms of the eligibility screening. The breakdown of those who were eligible and not eligible did not reflect the known breakdown of facility type and workplace breakdowns of STNA employment indicating some level of misunderstanding or lack of awareness among the STNAs as to the type of facility in which they were employed.

Conclusion.

As the number of individuals over 65 continues to grow, the need to strategize to retain dedicated direct care workers within SNFs will also persist. The current research investigated workplace experiences of STNAs and provided a unique perspective through an examination of STNAs at for-profit facilities. The results of Phases I and II provided an understanding of STNAs' basic psychological need fulfillment and the impact of intrinsic factors on intent to stay. The results of this research can provide insight into STNAs' workplace motivation, and may be utilized during future development and implementation of interventions and systemic changes to SNFs. The results of this research can be used to bring awareness to administrative staff of the importance STNA empowerment and the need for increased opportunities for autonomy in the broader organizational context.

Based on the current research, future research efforts should focus on STNA experiences of workplace autonomy and strategies for enhancing autonomy through organizational involvement, career planning, and involvement in clinical decision-making processes. Future research investigations can also utilize the created questionnaire and conceptual model to examine intent to stay in a larger sample.

As the need for STNAs continues to grow and financial constraints in SNFs continue to prohibit provision of tangible rewards, it is increasingly important to support intrinsic fulfillment among STNAs in order to positively impact retention. This line of research is an integral first step in the process to further understand STNA intent to stay in for-profit skilled nursing facilities, with the ultimate goal of designing effective interventions for retention by empowering STNAs to experience intrinsic satisfaction in their work.

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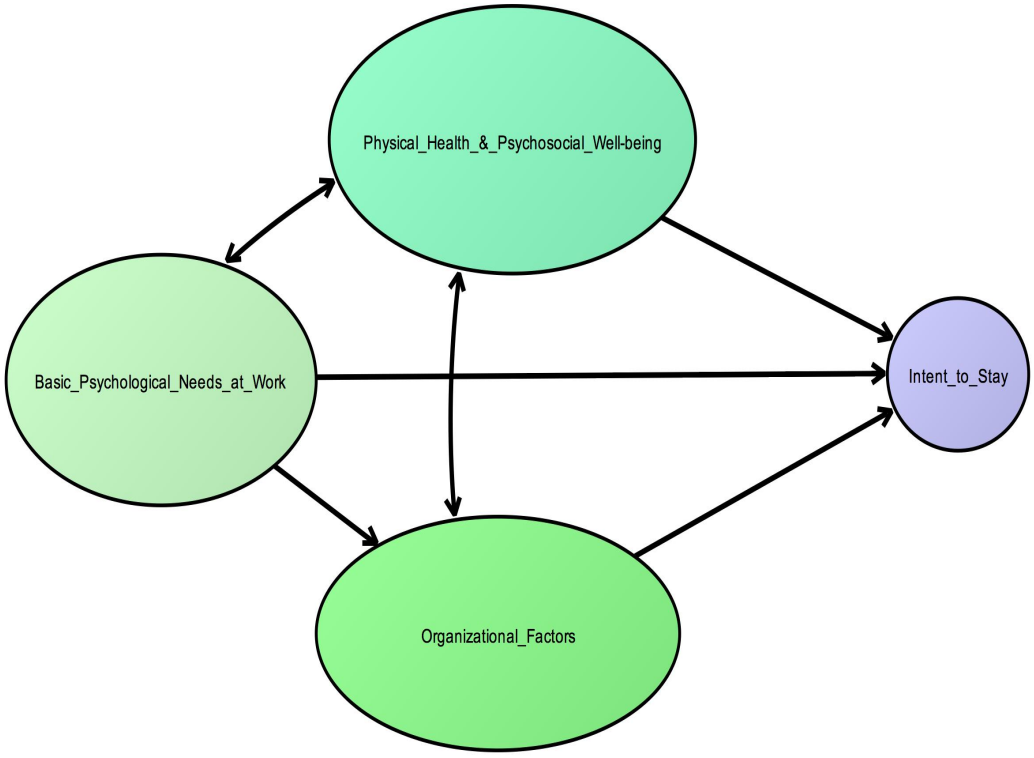
Appendix A

Figure 1: Model of Nursing Assistant Intent to Stay



Appendix B

Phase I- Recruitment Materials-Flyer

Appendix C

Phone Screen-Phase 1

Respondent name:

Phone number:

Date:

Interviewer

Hello, is _____ available?

If respondent is available continue.

If respondent is not available, ask a good time to call back.

Hello, my name is Meg, and I am a researcher from the University of Toledo. You have identified that you would be interested in participating in an interview to discuss your workplace experiences. Are you still interested in doing so?

If NO. OK, thank you. We appreciate your time.

If YES, continue.

Before I schedule you for an interview, I would like to tell you a little bit about the study. This particular study is investigating the experiences, relationships, and well-being of

nursing assistants who are employed at for-profit skilled nursing facilities. What we are interested in specifically, are the relationships between nursing assistants and the people they interact with while they are at work, and how those experiences may impact their health and well-being.

You are one of 30 different nursing assistants who will be interviewed for this research. The interview will last between 20 and 30 minutes and will take place at a public place and a time that is convenient for you. The interview will be audio recorded so that it can be transcribed later on. The researchers involved will keep all of your information confidential and no comments you make will be linked to your name or your place of employment.

For your time and participation, you will receive a $20 gift card to Amazon.

Are you still interested in participating?

If NO. OK, thank you. We appreciate your time.

If YES, continue.

Great, now I just need to ask you a few quick questions to make sure you are eligible for participation in the study. Are you at least 18 years of age? Are you currently employed at a skilled nursing facility? Do you have a current/ non-restricted nursing assistant license? Have you worked as a nursing assistant for at least one year?

If NO.

I am sorry, but it doesn't sound as if you are eligible. Thank you for your time,

If YES, continue.

OK it sounds like you are eligible for participation, so I am going to go ahead and get your name and have you let me know some times you are available in the next week. Will you be able to be interviewed on _____ (date and time) or _____(date and time)?

**** Finalize time/date/location****

Great, I have your name down for _____(time/date/location). As part of the study we will ask you to sign a consent form agreeing to participate. We would like to send you a copy to look over in advance. What is your mailing address or an email account that you would like this information sent to? Do you have any questions?

If YES, answer questions.

If NO.

OK, thank you for agreeing to participate. If something comes up and you will not be able to make the interview, or if you have any questions between now and them, please give me a call at 419-701-1072 or email mbenner2@rockets.utoledo.edu. Thank you, goodbye.

END CALL

Appendix D

Informed Consent-Phase I

ADULT RESEARCH SUBJECT - INFORMED CONSENT FORM

RESEARCH

Intrinsic factors influencing intention to stay in their positions

Principal Investigator: Victoria Steiner, PhD.

Other Staff: Megan Benner, MPH, Graduate Student

Contact Phone number(s): 419-701-1072

Purpose

You are being asked to take part in a research study focusing on nursing assistants' experiences at work. The results of this study are expected to help us better understand nursing assistants' health and well-being. Understanding the things that affect your health and well-being will provide information that profit skilled nursing facilities can use to develop strategies to promote a positive work environment.

You are one of 30 individuals taking part in this study because you are a nursing assistant employed at a for-profit skilled nursing facility, are over the age of 18, with an

unrestricted nursing assistant license, and able to speak English. You will be one of 30 individuals to be interviewed.

Description of Procedures:

If you decide to take part in this study, you will be asked to complete a one-time, individual, face-to-face interview that can be done at a public location of your choosing. The interview will last 20-30 minutes. You will be asked about your needs and experiences at work. You will also be asked some questions about yourself including things like, age, race/ethnicity, and gender. The interview will be recorded and the recordings will be put in writing however; your employer will not get your individual comments. At the end of the interview, you will be given a $20 Amazon.com gift card.

- *Permission to record: Will you allow the researcher to audio record during the interview?*

YES ☐ NO ☐

_____ _____ Initial

Here Initial Here

Potential Risks: There are minimal risks associated with participation in this study including:

- Loss of confidentiality
- Discomfort discussing personal experiences and/or work-related experiences
- Fear that participation will impact employment

The study procedures do not pose any risks that you would not experience in daily life. There are no known additional risks to pregnant women. All study protocols will be followed strictly by trained research staff, to protect information and identify any possible adverse events. If you experience any discomfort related to the line of questioning you may stop at any time.

Potential Benefits: Benefits of taking part in this research include an increased understanding of your own experiences as a nursing assistant and how qualitative research is conducted. Additionally, you will be given a $20 Amazon gift card for your time and trouble. Risks of negative events are very small, with procedures in place to reduce the risks. However, we cannot and do not promise that you will receive any benefits from this research.

Confidentiality: The researchers will make every effort to prevent anyone not involved in the research from having access to the data from the interview. The consent forms with signatures will be kept separate from responses, which will not include names and which will be presented to others only when combined with other responses. Although we will make every effort to protect your confidentiality, there is a low risk that this might be breached. By agreeing to take part in this research study, you understand that there is minimal risk of the loss of privacy and confidentiality. However, all precautions to protect your privacy will be put in place. All electronic data will be stored on a password-protected computer with a secure server that is only accessible to the study PI. All other data will be stored in a locked file cabinet stored in the private office of the study PI.

A more complete statement of University of Toledo's Privacy Practices is given by the Joint Notice of Privacy Practices. If you have not already received this Notice, a member of the research team will provide this to you. If you have any further questions concerning privacy, you may contact the University of Toledo's Privacy Officer at 419-383-6933.

Voluntary Participation: Taking part in this study is voluntary. You may refuse or stop the interview process at any time without penalty or a loss of benefits. If you decide not to participate or to stop participation, your decision will not affect your future relationships with the University of Toledo, The University of Toledo Medical Center, or your employment with HCR ManorCare.

Contact Information:

Before you sign this form, please ask any questions on any parts of this study that are unclear to you. You may take as much time as necessary to think it over.

If you have questions regarding the research at any time before, during or after the study, you may contact *Megan Benner at* 567.218.1699.

If you have questions beyond those answered by the research team or your rights as a research subject or research-related injuries, please feel free to contact the Chairperson of the University of Toledo Social, Behavioral, and Educational IRB at 419.530.6167.

The date you sign this document to enroll in this study, that is, today's date, MUST fall between the dates indicated on the approval stamp affixed to the bottom of each page.

Name of Subject (please print)	Signature	Date
Name of Person Obtaining Consent	Signature	Date

This Adult Research Informed Consent document has been reviewed and approved by the University of Toledo Social, Behavioral and Educational IRB for the period of time specified in the box below.

Approved Number of Subjects: _____

Appendix E

Demographic Questionnaire-Phase I

What is your gender?

1 Male 2 Female

3 Transgender 4 Prefer not to answer

With what race do you identify?

1 Black or African American

2 White

3 Prefer not to answer

4 Other (please

Specify): _____

With what ethnicity do you identify?

1 Hispanic or Latino

2 Non Hispanic or Latino

3 Prefer not to answer

What is your marital status?

1 Married

2 Widowed

3 Divorced

4 Separated

5 Never Married

6 Prefer not to answer

What is the highest level of education you have received?

1 No schooling completed

2 High school diploma or GED

3 Some college credit , no degree

4 Associates degree

5 Bachelor’s degree

6 Master’s degree

7 Prefer not to answer

Appendix F

Interview Guide- Phase I

Introduction

My name is Meg and I would like to thank you for being here today. Remember, if you feel uncomfortable you are free to leave or skip the question. This interview will be recorded and the recordings will be put in writing however; your employer will not get your individual comments.

Remember, participation is voluntary and you can choose not to participate at any time. If you decide that you do not want to participate, you are free to leave.

Do you have any questions about what I have just said?

Interview Purpose

The purpose of this research is to understand the needs and experiences of nursing assistants employed at skilled nursing facilities. In doing so, it is the hope that the findings will help nursing facilities to make positive changes to the workplace in support of the work you do.

1. Ok, I want to start by talking about your background. What made you decide to become a nursing assistant?

    a. What makes you happy when you are at work? What is the hardest part of your job?
    b. Where do you see yourself in 5 years?

2. Now, I would like to hear more about your job and day-to-day work life. Please tell me a little bit about your ability to make choices related to the care of a resident.

    a. How would you feel about being given more responsibility to make decisions about your patients' care?

3. You have to perform a lot of different caregiving activities as a nursing assistant. Describe for me how well prepared you feel to do your job?

    a. How confident are you while you are performing your job related activities?

4. Now, I want to talk about your accomplishments at work. Describe for me a time that you felt proud at work?

    a. What about it made you feel proud?
    b. How did others react?

5. Next, I want to talk about the people at work. What type of relationships and interactions do you have at work?

a. Tell me more about who work with, or talk to most?
b. Do you talk more with residents?
c. Do you talk more to other workers?

6. What are some differences you experience in your interactions depending on who you are working with?

    a. For example, are your relationships different with nurses compared to supervisors or residents?
    b. Would you describe your workplace relationships as positive or negative?
    c. How does this affect you ?

7. Now, I would like to talk about your mental and physical health. First, how would you describe your physical health?

    a. Do you have any specific physical health issues or concerns, this can include things like diabetes, chronic pain, etc.?

8. Now, describe your mental health, this can include things like stress or feeling overwhelmed.

9. How do you think your work life affects your physical health?

a. What about how your work life affects your mental health?

10. Finally, I want to talk about what you like and don't like about your job. Are there any changes you would like to see made? If you could make a recommendation to improve your life at work, what would that be?

Closing statement

The interview is now over, do you have any other comments or concerns that you wanted to share before we finish? Ok, I want to thank you for your time and participation today. The things you shared today have been very helpful. Please, don't hesitate to contact me if you think of something else you would like to add or expand upon. Thank you, again.

Appendix G

Phase II – Recruitment Materials- Postcard

THE UNIVERSITY OF TOLEDO 1872

Are you an STNA?

Please consider participating in our online survey about your work experiences.

Follow this link to the survey
https://tinyurl.com/UTSTNA
OR
scan the QR code

Provide your contact information & be entered into a drawing for a $50 gift card.

Please contact 567-218-1699 with questions

"This research study was (partially) supported by the NIOSH Pilot Research Project Training Program of the University of Cincinnati ERC Grant #T42/OH008432-10."
IRB#XXXXXXX

Appendix H

Phase II- Online Consent –Study Information Sheet

Thank you for your interest in participating in our research study. The purpose of this study is to gain a better understanding of the things that contribute to STNAs staying in their jobs.

Before we continue I would like to ask a few screening questions to determine your eligibility.

SCREENING QUESTIONS

Screening Question 1: Does your facility provide skilled nursing care?

Screening Question 2: Have you been an STNA for more than one year?

Screening Question 3: Is your facility a for-profit or corporate facility?

YES NO I DON'T KNOW

***IF NO OR I DON'T KNOW (STOP SURVEY)**

It looks like you are eligible, now I want to tell you more about this study. Following this brief description you can decide to click "Agree" to begin the questionnaire.

You are one of up to 2500 Ohio STNAs who are being asked to participate in a one-time survey that should take about 10-20 minutes. The first part of the survey asks about your health, feelings about work, and experiences at work. The remainder of the survey asks some demographic questions about yourself (that is age, gender, education level and your workplace intentions.

Your participation in completing this survey is voluntary. **If you decide to participate, please continue to the online survey. Participants will also have the option of being entered into a raffle to win a $50 gift card.** Raffle information and survey responses will be stored and gathered separately to ensure confidentiality of your responses. The submission of your responses on the online survey implies your consent to participate in this project. The results of this project may be shared with a professional journal and its readers. However, results will be reported in the aggregate and you will not be identified by name. All information that is obtained will remain confidential. Thank you for your assistance in helping us to learn about nursing assistants' workplace experiences for-profit skilled nursing facilities. You may contact Meg at 567-218-1699 or megan.benner@rockets.utoledo.edu for further information or questions about this project.

If you are still interested, please click "Agree" to begin.

Appendix I

Phase II –Nursing Assistant Survey

First, I would like to ask you some questions about your general health and well-being. Please select the single response that best describes you and your health.

1) Would you say that in general your health is

Poor Fair Good Very Good Excellent

2) Now thinking about your physical health, which includes physical illness and injury, for how many days during the *past month (30 days*) was your physical health not good? _____ days

3) Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the *past month (30 days)* was your mental health not good? _____ days

During the *past month (30 days*), for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? _____ days

During the past 30 days, for about how many days did PAIN make it hard for you to do your usual activities, such as self-care, work, or recreation? _____ days

During the past 30 days, for about how many days have you felt SAD, BLUE, or DEPRESSED? _____ days

During the past 30 day for about how many days have you felt WORRIED, TENSE, or ANXIOUS? _____ days

During the past 30 days, for about how many days have you felt you did NOT get ENOUGH REST or SLEEP? _____ days

During the past 30 days, for about how many days have you felt VERY HEALTHY AND FULL OF ENERGY? _____ days

On the whole, I am satisfied with myself.	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
I feel that I have a number of good qualities.	Strongly Agree	Agree	Disagree	Strongly Disagree
I am able to do things as well as most other people.	Strongly Agree	Agree	Disagree	Strongly Disagree
I feel I do not have much to be proud of.	Strongly Agree	Agree	Disagree	Strongly Disagree
I certainly feel useless at times	Strongly Agree	Agree	Disagree	Strongly Disagree
I feel that I'm a person of worth, at least on an equal plane with others.	Strongly Agree	Agree	Disagree	Strongly Disagree
I wish I could have more respect for myself.	Strongly Agree	Agree	Disagree	Strongly Disagree
All in all, I am inclined to feel that I am a failure.	Strongly Agree	Agree	Disagree	Strongly Disagree
I take a positive attitude toward myself.	Strongly Agree	Agree	Disagree	Strongly Disagree

Picked up meal for others at work.	**Never**	**Once or twice**	**Once or twice per month**	**Once or twice per week**	**Everyday**
Took time to advise, coach, or mentor a coworker.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Helped co-worker learn new skills or shared job knowledge.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Helped new employees get oriented to the job.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Lent a compassionate ear when someone had a work problem	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Lent a compassionate ear when someone had a personal problem.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Changed vacation schedule, work days, or shifts to accommodate coworker's needs.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Offered suggestions to improve how work is done.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Offered suggestions for improving the work environment.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday

Finished something for a coworker who had to leave early.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Helped a less capable coworker lift a heavy box or other object.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Helped a coworker who had too much to do.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Volunteered for extra work assignments.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Took phone messages for an absent or busy coworker.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Said good things about your employer in front of others.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Gave up a meal and other breaks to complete work.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Volunteered to help a coworker deal with a difficult resident, family member, or coworker.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Went out of the way to give a coworker encouragement or express appreciation.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday

Decorated, straightened up, or otherwise beautified a common workspace.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday
Defended a coworker who was being "put down" or spoken ill of by other co-workers or supervisors.	Never	Once or twice	Once or twice per month	Once or twice per week	Everyday

I feel like I can make a lot of inputs to deciding how my job gets done.	**Not at all true 1**	**2**	**3**	**Somewhat True 4**	**5**	**6**	**Very True 7**
I really like the people I work with.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I do not feel very competent when I am at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
People at work tell me I am good at what I do.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I feel pressured at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7

I get along with people at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I pretty much keep to myself when I am at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I am free to express my ideas and opinions on the job.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I consider the people I work with to be my friends.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I have been able to learn interesting new skills on my job.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
When I am at work, I have to do what I am told.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
Most days I feel a Sense of accomplishment	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7

from working.							
My feelings are taken into consideration at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
On my job I do not get much of a chance to show how capable I am.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
People at work care about me.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
There are not many people at work that I am close to.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I feel like I can pretty much be myself at work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
The people I work with do not seem to like me much.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7

When I am at work I often do not feel very capable.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
There is not much opportunity for me to decide for myself how to go about my work.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
People at work are friendly towards me.	Not at all true 1	2	3	Somewhat True 4	5	6	Very True 7
I would be very happy to spend the rest of my career with this organization.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
I enjoy discussing my organization with people outside it.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree

I really feel as if this organization's problems are my own.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
I think that I could easily become as attached to another organization as I am to this one.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
I do not feel 'part of the family' at my organization.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
I do not feel "emotionally attached" to this organization.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
This organization has a great deal of personal meaning for me.	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree nor agree	Slightly agree	Moderately agree	Strongly agree
I do not feel a strong sense of	Strongly disagree	Moderately disagree	Slightly disagree	Neither disagree	Slightly agree	Moderately agree	Strongly agree

belonging to my organization.				nor agree			

Finally, we would like to ask some questions about who you are. Please select the most appropriate answers. If you are uncomfortable with any question please feel free to skip to the next question.

What is your age?

___ Under 25 years

___ 25-34 years

___ 35-44 years

___ 45-54 years

___55 years and over

What is your gender? 1 Male 2 Female 3 Transgender 4 Prefer not to answer

With what race do you identify?

1 Black or African American

2 White

3 Prefer not to answer

4 Other (please Specify):

_____

With what ethnicity do you identify?

1 Hispanic or Latino

2 Non Hispanic or Latino

3 Prefer not to answer

What is your marital status?

1 Married

2 Widowed

3 Divorced

4 Separated

5 Never Married

6 Prefer not to answer

What is the highest level of education you have received?

1 No schooling completed

2 High school diploma or GED

3 Some college credit , no degree

4 Associates degree

5 Bachelor's degree

6 Master's degree

7 Prefer not to answer

Do you receive additional training or educational opportunities through your workplace?

1 YES

2 NO

Are you currently attending school to get a degree?

1 YES

2 NO

A: (If yes) What are you going to school for?

_____

How long have you been an STNA?

1 Less than 6 months

2 Less than 1 year

3 At least 1 year

4 2-5 years

5 6-10 years

6 11-20 years

7 More than 20 years

How long have you been employed at your current place of work?

1 Less than 6 months

2 Less than 1 year

3 At least 1 year

4 2-5 years

5 6-10 years

6 11-20 years

7 More than 20 years

I plan to leave this facility as soon as possible.

Strongly disagree Disagree Neutral Agree

Strongly agree

Under no circumstances will I voluntarily leave this facility before I retire.

Strongly disagree Disagree Neutral Agree

Strongly agree

I would be reluctant to leave this facility.

Strongly disagree Disagree Neutral Agree

Strongly agree

I plan to stay at this facility as long as possible.

Strongly disagree Disagree Neutral Agree

Strongly agree

Appendix J

Table 1. Phase I: Demographics Table

Characteristic	Sub- Characteristic	n (%)
Gender	Male	1 (10)
	Female	9 (90)
Race	White	5 (50)
	Black	3 (30)
	Other	2 (20)
Ethnicity	Hispanic or Latino	2 (20)
	Non-Hispanic or Non-Latino	8 (80)
Marital Status	Now Married	3 (30)
	Divorced	2 (20)
	Never Married	5 (50)
Time as STNA	At least 1 year	1 (10)
	2-5 years	3 (30)
	6-10 years	5 (50)
	11-20 years	1 (10)
Worked at Current Facility	Less than 6 months	3 (30)
	Less than 1 year	2 (20)
	At least 1 year	3 (30)
	2-5 years	1 (10)
	6-10 years	1 (10)
Level of Education	Some college	6 (60)
	Associate degree	2 (20)
	Bachelor's (or greater)	2 (20)
Age (years)	Average Age	38
	Minimum Age	20
	Maximum Age	57

Appendix K

Table 2. Selected Quotations by Theme, and their Relationship to Self-Determination Theory Constructs

Supportive Theme (SDT Construct)	**Selected Quotes**
Having work-related confidence (Competence)	"I've learned a lot on the job, just about different diseases they have and what they're feeling. [I'm] Pretty confident. I trust myself." (Participant 2) "At first I was a little nervous with the different lists and stuff. I think I had good training on that, but then… I was ready to go hands-on. I was asking her 'can I do it?', 'let me do it,' and then I can get used to what it's going to be like when you're not here." (Participant 6) "I feel better now that I have experience. It was kind of stressful at first when you had the hall to yourself the first time. But yeah, definitely [feel] better now that I have more experience." (Participant 5)
Experiencing positive caring relationships (Relatedness)	"When the patients are happy... that's a big part of what makes me happy at work." (Participant 1) "I like working with people. I like helping them and it makes me feel good. There's so many people out there that don't have anyone. Seeing them smile and just making their quality of life better." (Participant 2) "I wanted to do something [work] to help people. And I like helping older people who don't have family, a lot of them don't, and we become their family." (Participant 10)
Feeling workplace appreciation (Competence)	"I guess there was a particular resident that his sister was very disgruntled and unhappy with his care and she actually gave me a compliment that she was very happy that I had him because he was always shaved and clean and she knew that he was getting good care. That made me feel good. When she left they [other STNAs] were like, "That's the first time I've heard her say anything nice to anybody. She must like you for some reason." (Participant 4) "Almost every day to be honest with you because I have people that, either my co-workers compliment me or the people that I work for. Just saying that, "Thank you for helping me with this and thank you for being there." (Participant 5) "They [Patient family] were asking because they really wanted to

	know who took care of their family… and they were like, you were always ... as they put it, 'I showed more care than the normal Nurse Assistant.' " (Participant 8)
Willing to go above and beyond (Relatedness)	"I had a patient who was a Holocaust survivor, and so she only spoke broken German, a couple words of English, and I worked third shift and every night- not every night- a lot of nights, she would get really scared when the lights went out. She would sometimes barricade herself in her room and one thing I did ... I was able to translate just some basic English statements that I needed to have reassure her into German, and I just carried cards in my pocket of my scrubs that I could just pull out ...So when I felt like she needed to hear something…and it seemed to help comfort her, and that's something I do think about occasionally, just because I have no idea what she experienced but clearly it was so horrible and like in some way I was able to connect with her and help her though a dark night." (Participant 9) "I think I've received over 15 (Golden Tickets) of those at work just from therapists, occupational, physical therapists, nurses, just for taking time to help them with extra things. It could be transporting the patient down to physical therapy myself instead of therapy coming to get them." (Participant 2) "…They asked me to come in at two in the morning. So, I'll work two to two, which is fine…" (Participant 1)
Threatening Themes (SDT Construct)	**Selected Quotes**
Seeking career advancement (Competence)	"Hopefully I'll be graduated from school and not at the place that I'm at right now." [Participant 5] "I'm going to try to do nursing school. One of my patients is an RN, and she said she didn't get her RN until she was about 47 years old. I was telling her it's too late, I was too old. She said, "How old are you?" I told her. She said, "No, you can still do it." I was like "Okay, we'll try it." (Participant 6) "I been thinking about other fields, but I just don't ... It's hard for me, too, because of the educational background I had in high school that put me in a lot of fear of a lot of things, you know? I'm curious on what else is out there…" (Participant 7)
Experiencing difficulty providing person -centered care (Relatedness)	"It's [a] very physical, the job is very physically demanding, so when I'm short staffed I can get very tired out and burnt out very quickly." [Participant 7] "You don't get to treat them as a person or take time to actually interact with them and engage them and I think that adds to their quality of life. People probably would stay well longer or live

	longer if they were happier." [Participant 5] "I would say hire more nurses aids just because the more aids we have, the fewer patients we each have individually. It makes everything easier and if you need help you can grab help; you can really attend to the patients instead of having to quickly go to all of them." (Participant 2)
Feeling unsupported by supervisors (Relatedness/Competence)	"We don't speak to the supervisors all that much." [Participant 8] "They usually are training and educating us to fit their standards and that's usually when I'm talking to them. Or if something's not getting done, which is very annoying, because I only see them when there's a problem." [Participant 7] "The nurses, sometimes you get that feeling of you're low on the totem pole or you're not as important, so they don't really talk to you unless they need something." [Participant 4]
Being frustrated with limited teamwork (Relatedness)	"In a facility setting, what makes it hard is when you don't have team players." [Participant 3] " I don't like when other people don't work as hard as I do. I don't like when nurses set a bad example. I don't like when other staff members don't do as much as I did and it seemed like nothing ever happens to them and they just continue on…it just seems like some really poor performers keep their jobs, and that was frustrating." [Participant 10] " I would like to see a work-place that is, where it's a team level …the bad aides that just go in there and just don't care about anything else. When it comes to helping other people out, they just feel like it's not their job. That's the only thing I wish that would change." [Participant 7]

Appendix L

Table 3. Phase II: Demographics Table

Characteristics	Sub-characteristics	n (%)
Age (n=32)	Under 25 years	3 (9.4)
	25-34 years	10 (31.3)
	35-44 years	7 (21.9)
	45-54 years	7 (21.9)
	55 years and over	4 (12.5)
	Prefer not to answer	1 (3.1)
Gender	Male	4 (12.5)
	Female	26 (81.3)
	Transgender	2 (6.3)
Time as STNA	At least 1 year	4 (12.5)
	2-5 years	6 (18.8)
	6-10 years	10 (31.3)
	11-20 years	6 (18.8)
	More than 20	6 (18.8)
Time at Current Facility	Less than 6 months	3 (9.4)
	Less than 1 year	4 (12.5)
	At least 1 year	8 (25.0)
	2-5 years	9 (28.1)
	6-10 years	3 (9.4)
	11-20 years	3 (9.4)
	More than 20	2 (6.3)
Race	Black or African American	4 (12.5)
	White	25 (78.1)
	Prefer not to answer	2 (6.3)
	Other	1 (3.1)
Ethnicity	Hispanic or Latino	2 (6.3)
	Non-Hispanic or Latino	27 (84.4)
	Prefer not to answer	3 (9.4)
Marital Status		
	Married	12 (37.5)
	Widowed	2 (6.3)
	Divorced	2 (6.3)
	Never married	15 (46.9)
	Prefer not to answer	1 (3.1)

Appendix M

Table 4. Phase II: Regression Table

Variable	Simple β coeff. [95% CI]	Adjusted β coeff. [95% CI]
Autonomy	.234 [.106, .361]*	.200 [.024, .375]*
Competence	.174 [-.003, .351]	.020 [-.190, .230]
Number of Anxiety days	-.165 [-.322, -.009]*	-.121 [-.266, .024]

* statistically significant ($p \leq .05$)

Appendix N

Table 5. Findings by Research Question and Hypotheses

Research Question and Hypotheses	Analyses	Reject (y/n)
Research Question 1		
H1: STNAs experience fulfillment of the basic psychological need of autonomy at work. **Null:** STNAs do not experience fulfillment of their need of autonomy at work.	Descriptive Statistics: Means of total scores	Y
H2: STNAs experience fulfillment of the basic psychological need of relatedness at work. **Null:** STNAs do not experience fulfillment of their need of relatedness at work.	Descriptive Statistics: Means of total scores	Y
H3: STNAs experience fulfillment of the basic psychological need of competence at work. **Null:** STNAs do not experience fulfillment of their need of competence at work.	Descriptive Statistics: Means of total scores	Y
Research Question 2	**Analyses**	**Reject**
H4: The fulfillment of the basic psychological need of autonomy at work will be associated with better physical health and psychosocial well-being. **Null:** Experiences of fulfillment of the basic psychological need of autonomy at work will be unrelated to physical health and psychosocial well-being.	Simple Linear Regression	N
H5: The fulfillment of the basic psychological need of relatedness at work will be associated with better physical health and psychosocial well-being. **Null:** Experiences of fulfillment of the basic psychological need of relatedness at work will be unrelated to physical health and psychosocial well-being.	Simple Linear Regression	N
H6: The fulfillment of the basic psychological need of competence at work will be associated with better physical health and psychosocial well-being. **Null:** Experiences of fulfillment of the basic psychological need of competence at work will be unrelated to physical health and psychosocial well-being.	Simple Linear Regression	N
H7: Nursing assistants who experience overall basic psychological need fulfillment will identify better self-reported physical health and psychosocial well-being. **Null:** Nursing assistants basic psychological need fulfillment is not related to better self-reported physical health and psychosocial well-being.	Simple Linear Regression	N

Research Question 3	Analyses	Reject
H8: Nursing assistants who experience fulfillment of their basic psychological need of autonomy at work will demonstrate greater affective organizational commitment. **Null:** Fulfillment of autonomy at work will be unrelated to affective organizational commitment.	Simple Linear Regression	N
H9: Nursing assistants who experience fulfillment of their basic psychological need of relatedness at work will demonstrate greater affective organizational commitment. **Null:** Fulfillment of relatedness at work will be unrelated to affective organizational commitment.	Simple Linear Regression	N
H10: Nursing assistants who experience fulfillment of their basic psychological need of competence at work will demonstrate greater affective organizational commitment. **Null:** Fulfillment of competence at work will be unrelated to affective organizational commitment.	Simple Linear Regression	N
H11: Nursing assistants who experience fulfillment of all their basic psychological needs of autonomy, relatedness, and competence at work will demonstrate greater affective organizational commitment. **Null:** Fulfillment all three basic psychological needs at work will be unrelated to affective organizational commitment.	Simple Linear Regression	N
Research Question 4	**Analyses**	**Reject**
H12: STNAs' organizational citizenship behavior directly affects their affective organizational commitment to the for-profit skilled nursing facility in which they currently work. **Null:** STNAs' organizational citizenship behavior does not affect nursing assistant organizational commitment to the for-profit skilled nursing facility in which they currently work.	Simple Linear Regression	Y
Research Question 5	**Analyses**	**Reject**
H13: There is a multilayered causal relationship between the model constructs of basic psychological needs, physical health and well-being, organizational citizenship behavior, and affective organizational commitment that is associated with STNAs' intent to stay. **Null:** There will be no identified causal relationships between model constructs that can explain nursing assistant intent to stay.	Unable to Complete	

Research Question 6	Analyses	Reject
H14: There is a combination of factors in the proposed model that best predicts and accounts for the most variance of STNA intent to stay in their position at for-profit skilled nursing facilities. **Null:** There is no identifiable combination of factors in the proposed model that is predictive or accounts for the most variance of STNA intent to stay in their positions at for-profit skilled nursing facilities.	Unable to Complete	