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College of Education

Doctorate of Education Program

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Predictors of Intent to Stay of Clinical Care Managers in the
Inpatient and Outpatient Settings: A Causal-Comparative Study

Carlo C. Carado

Concordia University–Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Transformational Leadership

Belle Booker-Zorigian, Ph.D., Faculty Chair Dissertation Committee

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2019

Abstract

This quantitative research study was conducted to determine if employee engagement, belief in mission and values, and employee support predict intent to stay of clinical care managers in the inpatient and outpatient settings. The present research study also examined the construct validity of the survey instrument, which was utilized by the subject organization in 2018. Through exploratory factor analysis (EFA), the constructs of employee engagement, belief in mission and values, and employee support were analyzed. Secondary data was collected from the 2018 completed surveys of 160 licensed nurses and social workers considered as clinical care managers from a large health care system in the western United States. The results of the EFA supported the validity of the constructs of belief in mission and values that explained 53.6% of the variability with a .912 reliability coefficient and employee support explained 8.96% of the variability with a .828 reliability coefficient. Employee engagement was deemed invalid due to cross-loadings of the factors with employee support and belief in mission and values. Binary regression analysis did not reveal statistically significant findings due to small sample size and lack of variability of the dichotomous outcome variable measurement. Post hoc analysis was conducted using multiple linear regression, which revealed predictive qualities of belief in mission and values ($p < .05$) and employee support ($p < .05$) on intent to stay of clinical care managers in the inpatient and outpatient settings.

Keywords: clinical care managers, intent to stay, inpatient and outpatient settings

Dedication

I dedicate this dissertation to my husband and partner for life, Matias who has been my greatest inspiration, supporter, cheerleader, and believer throughout this doctoral journey. Thank you for your love, kindness, understanding, patience, and commitment. I also dedicate this work to my parents and my older brother. They would have loved to see me graduate but I have no doubt that they are beaming with pride from heaven. Their short lives inspired me to love unconditionally, persevere, forgive, be kind, laugh more, always believe in myself, chase after my dreams as if there are no impossibilities, and live in the moment.

“The future belongs to those who believe in the beauty of their dreams.”— Eleanor Roosevelt

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Chapter 1: Introduction

The purpose of this quantitative research study was to examine whether employee engagement, belief in the organization's mission and values, and employee support predict intent to stay in their positions as clinical care managers in the inpatient and outpatient settings. The clinical care managers were composed of licensed nurses and clinical social workers in the inpatient and outpatient settings who help manage and coordinate the care of patients. Available literature illustrates diverse studies on employee engagement, motivation, trust, employee support, and the financial and psychosocial impact on intent to stay. Currently, value-based models in healthcare reimbursement focus on outcomes of care as the index for reimbursement (Dale, 2016). As such, leaders of healthcare organizations must think of ways to address the increasing costs of care that include employee turnover rates and understanding the determinants of employees' intention to stay in their jobs or the organization (Skillman et al., 2017). Therefore, an examination of employee engagement, belief in mission and values, and employee support as predictors of intent to stay in the organization among clinical care managers in the inpatient and outpatient settings may provide additional insight to organizational leaders about workplace strategies and initiatives.

An extensive study by Collini and Guidroz (2015) on child welfare case managers presented evidence of the positive influences of employee engagement on employee satisfaction that ultimately raises quality of care and retention. However, with increasing pressures to provide high quality of care in the most cost-efficient manner, the importance of understanding the unique impact of predictors of employees' intent to stay in their jobs warrants further exploration (Meyer, 2017). Thus, the significance of adding to current body of literature may help organizational leaders add insight to address current problems of retaining employees.

Background, Context, and History

Healthcare costs continue to increase, and many private and government healthcare payers and organizations have turned to seeking innovative programs to improve physician engagement to better coordinate patient care while decreasing healthcare utilization costs (Skillman et al., 2017). Training new staff and supporting professional development are costly and can exert additional pressure on enterprise leaders to implement innovative ways to retain employees (Shantz, Alfes, & Arevshatian, 2015). Estimates of hospital expenditures suggest that total costs directly related to staff turnover may double or triple a nurse's annual salary, which may include recruitment costs, job orientation, and employee benefits (Reina, Rogers, Peterson, Byron, & Hom, 2018).

There is an increasing global concern regarding the aging nurse population that calls for organizational leaders to address the retention of newly graduated nurses (Read & Laschinger, 2015). Understanding the meaning of work and turnover intention among clinical care managers in a healthcare enterprise is important (Sun, Lee, & Sohn, 2019). Staffing retention of nurses is a global issue that calls for leaders to understand factors that lead to nurses' intention to remain or to leave their positions (Rodwell, Mcwilliams, & Gulyas, 2017).

Enterprise leaders need to understand relationships of work variables that contribute to higher levels of retention as well as attrition among nurses and other healthcare professionals (Han, Trinkoff, & Gurses, 2017). Therefore, failure of organizational leaders to address questions related to these unique determinants of intent to stay may result in elevated costs for staff turnovers, lower productivity, and lower overall performance for the organization (Decker, Mitchell, & Rabat-Torki, 2016).

Conceptual Framework

The conceptual model for this research was based on the study done by Boyle, Bott, Hansen, Woods, and Taunton (1999) in “Managers’ Leadership and Critical Care Nurses’ Intent to Stay.” This conceptual model entitled “Critical Care Nurses’ Intent to Stay” was grounded empirically in literature and illustrates critical care nurses’ intent to stay at their jobs as directly linked to predictor variables represented by four categories namely: manager characteristics, organizational characteristics, nurse characteristics, and work characteristics (Boyle et al., 1999). Job stress, job satisfaction, and commitment emerged as three intervening variables on nurses’ intent to stay.

The present research study adapted the model by Boyle et al. (1999) using three intervening variables as models for the predictors in this study as follows: (a) job stress was used as the model for employee support, (b) job satisfaction was used as the model for employee engagement, and (c) commitment was used as the model for belief in mission and values. In using this adapted conceptual model, the present study provided additional knowledge in literature to address whether employee engagement, belief in mission and values, and employee support predict intent to stay of clinical care managers in the inpatient and outpatient settings. The elements of employee engagement, belief in mission and values, and employee support, and the outcome variable, intent to stay are discussed in the following section.

Employee engagement. Employee engagement has emerged as a commonly occurring predictor variable in employee retention, job satisfaction, quality of care, safety, support among many others (Han et al., 2015; Karanika-Murray, Pontes, & Griffiths, 2016). In a study by Reijseger, Peeters, Taris, and Schaufeli (2016), the concept of employee engagement was presented as the totality of the employee’s mind state with the most positive workplace

conditions. The concept of totality of working conditions and mind state were also described in an earlier work. The theory of work engagement was first described as the totality of a person's physical, emotional, and cognitive states (Kahn, 1990). The theory was further described as having the ability to incorporate these states of being by employees into their jobs and roles (Kahn, 1990). Engagement has also been described as having innate qualities, which include control, passion for the work, and mutual respect (Okello & Gilson, 2015). Additionally, engagement requires a rigorous evaluation of employees' feelings that are unique to their work (Mayo, 2016). Passion was described as the desire to achieve and to provide excellent work, which was further illustrated as possessing qualities of emotional well-being, being content, and happy (Roh et al., 2016).

Belief in mission and values. Organizational mission and values shape the identity of any organization and provide guidance to employees to aim for the same pathway to achieve the mission (Dermol & Sirka, 2017). In order to move the organization positively, enterprise leaders should strive to always align ongoing efforts with the organizational mission and vision to sustain positive performance (Cheema et al., 2015). Organizations with employees who are committed to the organization's values ignite a higher level of motivation to serve the public as a form of prosocial motivator (Homberg et al., 2015). In a focused study on social workers, organizations with a mission for public service inspire prosocial motivation (Roh, Moon, Yang, & Jung, 2016). Therefore, motivational properties of mission-driven organizations provide insight as they relate to turnover intentions or intent to stay (Caillier, 2016).

Employee support. Organizational support for employees is a result of a social exchange between an employee and the organization that may impact employee's intention to

stay (Kalidass & Bahron, 2015). Supportive managerial environments provided pathways for staff to be innovative and creative (Kahn, 1990). Managerial support to employees, respect, recognition, rewards, and appreciation are all linked to employee trust in the organization (Okello & Gilson, 2015). In addition, employees are able to differentiate their relationship with their supervisors and with the organization (Kalidass & Bahron, 2015). Thus, the interpersonal interactions that promote dignity, valuation of self, and feelings of belonging are personal elements that support an employee (Kahn, 1990).

Employees feel supported when they achieve a sense of trust from managers and leaders that encompasses safety at work, interpersonal connections with co-workers, and experiences and perceptions about organizational leaders and coworkers (Okello & Gilson, 2015). A lack of trust by employees may predispose organizations to higher turnover intentions (Christie, Jordan, & Troth, 2015). In addition, whether employee trust is vested in leaders, co-workers or the organizational brand, this may predispose organizations to higher turnover intentions and declining commitment of the employees (Christie et al., 2015). Therefore, examining the predictive features of employee support on intent to stay is relevant in today's value-based organizations.

Intent to stay. Intent to stay is the outcome variable in the present research study. It is described as a conscious and deliberate action of an employee to stay in a job based on specific variables (Park et al., 2016). Additionally, in predicting intentions of healthcare practitioners to stay in their jobs, diversity, belief in mission, and work engagement played significant roles (Collini et al., 2015). Intention to stay is also closely associated with work engagement, getting appropriate support from managers, educational opportunities at work, and a good workplace atmosphere (Eltaybani, Noguchi-Watanabe, Igarashi, Saito, & Yamamoto-Mitani, 2018). On the

other hand, a study by Han, Trinkoff, and Gurses (2015) concluded that predictors of job satisfaction are nurses' intent to leave and the desire to stay in their current positions.

High recruitment costs and availability of qualified employees can cause tremendous financial strain on organizations (Cloutier, Felusiak, Hill, & Pemberton Jones, 2015).

Additionally, social mission in healthcare requires employees to discover their meaning of work and to share the vision of the organization to predict low turnover intention (Sun et al., 2019).

Therefore, leadership practices must value cultivating a workplace that promotes employee engagement, employee support, and a vision for sustaining and promoting quality of care to augment employees' intent to stay in their positions (Eltaybani et al., 2018).

Statement of the Problem

The present research study was inspired by a work issue related to recruiting and retaining clinical care managers in inpatient and outpatient settings. The current healthcare landscape is filled with challenges in providing and ensuring efficient coordination and transitions of care that result in medical errors, inappropriate utilization of resources, and harm to patients (Yeaman, Ko, & del Castillo, 2015). The Institute of Medicine (IOM) described that with efficient care coordination to cut waste, there is an opportunity to save hundreds of billions of dollars annually (National Quality Forum, 2015). In today's value-based purchasing models, organizational leaders are challenged with reducing cost of care without compromising quality in order to meet the demands of reimbursement of healthcare insurers and payers (Shantz et al., 2015). Thus, focusing on expenditures related to human resources and the concern for the aging nurse population should heighten awareness of implementing and sustaining strategies to optimize and retain staff (Han et al., 2017; Rogers et al., 2018).

Clinical care managers perform a critical function in assisting patients in their health care journey that includes education, ensuring compliance with treatment plans, coordination of care, identifying potential issues, and assisting with psychosocial needs (Tannessen, Ursin, & Brinchmann, 2017). As such, the clinical care managers' roles are critical in helping achieve efficient coordination of care in the inpatient and outpatient settings. Available literature focuses on the correlates of employees' intent to stay among physicians, social workers, and nurses in their jobs (Patrnchak, 2013; Porter, Reisenny, & Fields, 2016; Rodwell, McWilliams, & Gulyas, 2017). Therefore, focused studies to understand the predictors of intent to stay among clinical care managers in the inpatient and outpatient settings are significant additions to current body of knowledge.

Purpose of the Study

The present study examined the predictive qualities of employee engagement, belief in mission and values, and employee support on intent to stay among clinical care managers in the inpatient and outpatient care settings. The results of this study describe the unique challenges that clinical care managers face, which highlights the importance of these predictors on their intent to stay in their current positions or in the organization. Management practices and organizational policies in healthcare organizations must tailor strategies that promote employee support manifested by structuring jobs that reinforce autonomy in order to sustain the healthcare workforce (Knapp, Smith, & Sprinkle, 2017). The results of this study added new and distinctive knowledge to available literature because of the uniqueness of the population, validation of the survey instrument, and presenting the predictive probability of engagement, belief in mission and values, and employee support on intent to stay.

Research Questions and Hypotheses

In the present research study, I addressed the following research questions:

RQ 1. Does employee engagement predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H1_o. Employee engagement does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H1_a. Employee engagement predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

RQ 2. Does an employee's belief in the organization's mission and values predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H2_o. Belief in mission and values does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H2_a. Belief in mission and values predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

RQ 3. Does employee support predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H3_o. Employee support does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H3_a. Employee support predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

Rationale, Relevance, and Significance of the Study

Literature has shown studies on nurses and social workers who work at hospitals and government social welfare offices but literature is limited on specific studies on clinical care

managers in hospital and ambulatory care settings from a managed care perspective (Harp, Scherer, & Allen, 2017; Okello & Gilson, 2015; Preston, 2013). Therefore, the opportunity to study employee engagement, belief in mission and values, and employee support as predictors of intent to stay of clinical care managers in the inpatient and outpatient care settings is relevant in today's healthcare landscape. This additional knowledge may assist healthcare enterprise leaders in using specific findings from the present research study related to clinical care managers, especially pertaining to recruitment and retention, which increases health care expenditures.

The conceptual model by Boyle et al. (1999) advanced the notion that job stress, job satisfaction, and commitment act as mediators between these characteristics and the employees' intent to stay at their jobs and resulting in intervening variables leading to intent to stay in their current positions (Boyle et al., 1999). Additionally, the social systems theory may provide perspective on the interrelationships of engagement, belief in mission and values, and employee support and the constraining impact of extrinsic variables as it relates to the service areas and employee population size of the organization (Schneider, Wickert, & Marti, 2017).

There was also evidence in literature of the use of other human needs theories to guide the exploration of the variables in this study. As an example, Maslow's five levels of needs was used to describe the importance of understanding how employees prioritize their needs before they can take the next step (Conrad et al., 2015). Maslow's perspective provided insight in this study to understand the complexity of affecting variables on intent to stay provided by the clinical care managers in inpatient and outpatient settings. These affecting variables may be accurately illustrated based on the significant effect of complex systems on the healthcare workers' job duties. However, in prioritizing needs, the self-determination theory also explains

that there are immediate psychological needs that must be satisfied first such as needs of autonomy, relatedness, and competence (Valentin, Valentin, & Nafukho, 2015).

Understanding the influencing factors from a social systems and self-determination theories and utilizing a conceptual model as a lens to understand available literature revealed a need based on current body of knowledge related to predictors of intent to stay of licensed nurses and social workers who are employed as clinical care managers in the inpatient and outpatient settings. The lessons learned and the findings from the present research study may also provide guidance to healthcare leaders on focusing their strategies when it comes to sustaining engagement and messaging organizational mission and values to employees and bolstering programs to promote awareness of employee support.

The significance of the present study provides an in-depth look at engagement and retention efforts by healthcare organizations in the world of value-based purchasing models of reimbursement. In value-based healthcare payment models, successful organizations succeed in achieving quality care at a lower cost (Skillman et al., 2017). There is a need for healthcare organizations to create work environments where positive communication is sustained among staff members who are focused in their work, engaged in their work, and focused on the mission (Decker et al., 2016).

Definition of Terms

Specific terms emerged in the process of reviewing literature that warranted highlighting. These material terms assisted in understanding the unique place that clinical care managers occupy in healthcare delivery. In addition, these terms are germane to the practice of healthcare delivery in today's managed healthcare environment.

Clinical care managers or case managers. For this study, clinical care managers were either licensed nurses or social workers. Clinical care managers are professionals who assist patients in decisions as well as in coordinating healthcare services for a population aggregate (Tannessen, Ursin, & Brinchmann, 2017). The process of care management includes comprehensive assessment, establishing a care plan, coordinating care with members of the healthcare team and support system, empowering and educating the client (Stokes et al., 2015).

Care management. The process of care management includes comprehensive assessment, establishing a care plan, coordinating care with members of the healthcare team and support system, empowering and educating the patient (Stokes et al., 2015).

Managed care. Managed care is defined as a general idea to maximize the health of a population aggregate to minimize care utilization while keeping costs to a minimum (Steele & Merrick, 2013). Additionally, managed care may refer to comprehensive care programs based on health insurer contracts with healthcare providers to incentivize providers in promoting efficiency in healthcare delivery and expenditure (Perez, 2017).

Value-Based model/purchasing. Reimbursement systems that shift emphasis from volume of services to quality of outcomes achieved (Timpka, Nyce, & Amer-Wahlin, 2018).

Assumptions, Delimitations, and Limitations

Assumptions, delimitations, and limitations are important considerations in planning, explaining, and framing this present study. It is critical to understand the necessity to clearly articulate the steps taken to validate specific processes in the research design. Additionally, there must be transparency in discussing the constraints based on the scope and parameters of the research that are outside the control of this researcher and the steps taken in decision-making that addressed each of these constraints.

Assumptions. Due to pressures placed upon healthcare leaders to maximize care at a lower cost, the significance of examining intent to stay of employees as human resources becomes more important in decreasing costs (Knapp et al., 2017). As a way to protect the integrity of this study an assumption was made that the survey questions were answered truthfully. Complete anonymity was observed in this research study by ensuring that neither identifiable information of respondents nor identifiable information of the subject organization was disclosed in this dissertation. Also, access to any identifiable personal information was not made available to the researcher. Further, as a measure to bolster rigor in data collection integrity, only completed surveys were included in the final number of extracted surveys.

Delimitations. This study was limited to answering the research questions and the researcher collected secondary data to reflect such process. As such, this delimitation approach determined the parameters for inclusion of participants, the statistical tests to be performed, and the number of survey items. The study focused on the relationships of the independent variables, employee engagement, belief in mission and values, and employee support on intent to stay in their positions or within the organization as clinical care managers in the inpatient and outpatient settings. Therefore, survey items that measured only the constructs of the variables were used.

Limitations. A limitation of this study was the lack of published information to support the validity of the survey instrument, which required statistical validation. Another limitation was the cross-sectional approach. In research, a cross-sectional approach may be a limitation due to the collection of data that only reflects a specific time period (Williams, Baath, & Phillip, 2017). In contrast, literature has shown that longitudinal studies provide a more extensive insight about the sample population although this approach is more popular in qualitative studies

(Compton-Lilly, 2016). However, possible contingencies may include examining similar population groups in other organizations to address this potential issue.

Summary

In summary, this study focused on employee engagement, belief in mission and values, and employee support as the independent variables and their predictive qualities on intent to stay of clinical care managers in their positions or with the organization in the inpatient and outpatient care settings. This research began with exploring Kahn's theory of psychological conditions of Personal Engagement and Disengagement at Work (PCED), which provided theoretical basis for studying employee engagement. The model of nurses' intent to stay developed by Boyle et al. (1999) was used as a conceptual model related to possible predictors of intent of stay, which was eventually adapted as a lens in facilitating literature review, methodology, data analysis, and the development of a new adapted conceptual model for clinical care managers' intent to stay. The findings added value to current knowledge since clinical care managers as the subjects in this setting have not been extensively studied before in the context of intent to stay even though similar studies have been done in different settings and using different professional types of care managers. Finally, the findings may assist leaders of healthcare organizations in determining strategies to deploy as they address staffing challenges in recruitment and retention especially in this special population of professionals.

Chapter 2: Literature Review

This study examined employee engagement, belief in the organization's mission and values, and employee support as possible predictors of intent to stay of clinical care managers in the inpatient and outpatient care settings. Employee engagement is a psychological state that is influenced by an employees' internal work motivation, manifested by meaningfulness, safety, and availability to continue working (Kahn, 1990). Belief in the organization's mission and values represents employees' commitment to uphold the core elements of an organization's identity through alignment of actions in support of the mission and values (Dermol & Sirka, 2017). Employee support is the organization's consistency in its managerial and human resourcing by providing reinforcement to promote the physical and emotional well-being of employees in the form of rewards and recognition (Okello & Gilson, 2015). Intent to stay is the desire of an employee to stay in a job based on specific structural and relational variables (Park et al., 2016).

Healthcare costs continue to increase and private as well as government payers have turned to innovative programs to improve coordination of care while decreasing costs in utilization (Skillman et al., 2017). The importance of retaining valued employees remains to be a challenge today due to the costs associated with low retention rates as well as the loss of tacit knowledge and mentors (Reina et al., 2018). Additional pressure exists for enterprise leaders to be creative in sustaining staff engagement and to increase professional development and motivation (Shantz, Alfes, & Arevshatian, 2015). There have been several studies that explored aspects of engagement, mission, and support among health care professionals in a variety of settings. Preston (2013) studied job characteristics and instrumental feedback in child welfare

social workers. Collini and Guidroz (2015) examined employee engagement and turnover intent among healthcare practitioners.

Bakker (2017) explored job crafting among nurses and the impact on job satisfaction and performance. Additionally, Conrad et al. (2017) studied internal motivators for physician leaders in inpatient care. Other study variations illustrated the link between human resources management and motivation and a healthcare workers' intent to stay in their jobs as well as intrinsic and extrinsic motivators that affected retention of nurses (Dill, Erikson, & Diefendorff, 2016; Schopman, Kalshoven, & Boon, 2017). Therefore, the lack of focused literature to examine the predictors of clinical care managers' intent to stay in the inpatient and outpatient care settings remains a potential gap.

Study Topic

Value-oriented organizational culture is a product of the employee's assessment of their work environment as it pertains to practices such as pay, promotion, and recognition (Porter, Riesenny, & Fields, 2016). As such, employees with higher levels of vigor and dedication as a result of positive organizational practices are more engaged (Jeve, Oppenheimer, & Konje, 2015). Studies have shown that employee work engagement that consists of positive affective-cognitive work-related state of mind with vigor, dedication, and absorption are worth striving for by organizations to increase retention (Reijseger et al., 2016). These extrinsic and intrinsic factors led to the present research study's focus of examining the predictive qualities of employee engagement, belief in organization's mission and values, and employee support on intent to stay of clinical care managers' in their current positions in the inpatient and outpatient settings as reflected in today's healthcare delivery process.

Study Significance

Value-based purchasing models of healthcare reimbursement emphasize quality that must overcome the utilization costs of providing care (Skillman et al., 2017). On the practical side, the rising cost of healthcare and the evolving complexity of healthcare reimbursement predispose healthcare managers to think of ways to engage their workforce of healthcare providers to sustain retention rates (Patrnchak, 2013). In a population health setting, there is room to explore the predictors of clinical care managers' intent to stay. What has been concluded in literature consists of predominant themes that illustrate the correlation or impact of employee engagement, mission, values, support, and trust in varying degrees with turnover intentions (Bailey, 2016; Lichtfield et al., 2016; Mayo, 2016). Additionally, global concerns about the aging nurse population and the rising complexity of medical and social issues of aging Americans predispose organizational leaders to address recruiting and retaining nurses and social workers who are the right fit for the job (Read & Laschinger, 2015). Healthcare organizations need to create work environments where positive communication is sustained among staff members who are focused on their jobs, engaged in their work, and focused on the mission (Decker et al., 2017). Further, managers and supervisors of care management programs may be able to derive key points based on the findings from this research study.

Problem Statement

The costs related to nursing staff turnover may be double or triple a nurse's annual salary, which encompass costs of recruitment, job orientation, and benefits (Reina et al., 2018). Studies have shown themes that illustrate employee engagement, trust, and understanding of organizational mission, and employee support as having separate or combined effects on job satisfaction, quality of care, and retention (Bakker, 2017; Dill et al., 2016; Kumar & Pansari,

2015; Okello & Gilson, 2015). Additional literature illustrates that training new nursing staff and professional development are costly, with pressures being placed on enterprise leaders to be innovative in retaining staff (Shantz et al., 2015). There are also concerns about the nurses who are leaving the profession due to age that poses foreseeable issues to healthcare leaders in addressing retention of junior nurses (Read & Laschinger, 2015). Failure of organizational leaders to address issues of retention may result in additional administrative costs and decreased performance for the healthcare organization (Decker et al., 2016). Therefore, to address the need for specific knowledge in literature related to this topic, it was relevant to examine the possible predictors of clinical care managers' intent to stay in their positions or with the organization.

Organization

First, this chapter provides a review of the literature on employee engagement, belief in organization's mission and values, employee support, and intent to stay as well as known relationships among these constructs. Second, this chapter includes a review of methodological approaches used to investigate these constructs and a discussion of the discovered methodological issues. Third, this chapter provides a synthesis and critique of the body of literature and situates this study within that literature. Finally, the chapter concludes with a summary.

Conceptual Framework

The conceptual model for this research was based on the study done by Boyle et al. (1999) in "Managers' Leadership and Critical Care Nurses' Intent to Stay." With empirical studies and literature as bases, the model indicates critical care nurses' intent to stay at their jobs is related to predictor variables represented by four categories that include manager characteristics, work characteristics, organizational characteristics, and nurse characteristics.

Also, job stress, job satisfaction, and commitment emerged as intervening variables on intent to stay (see Figure 1).

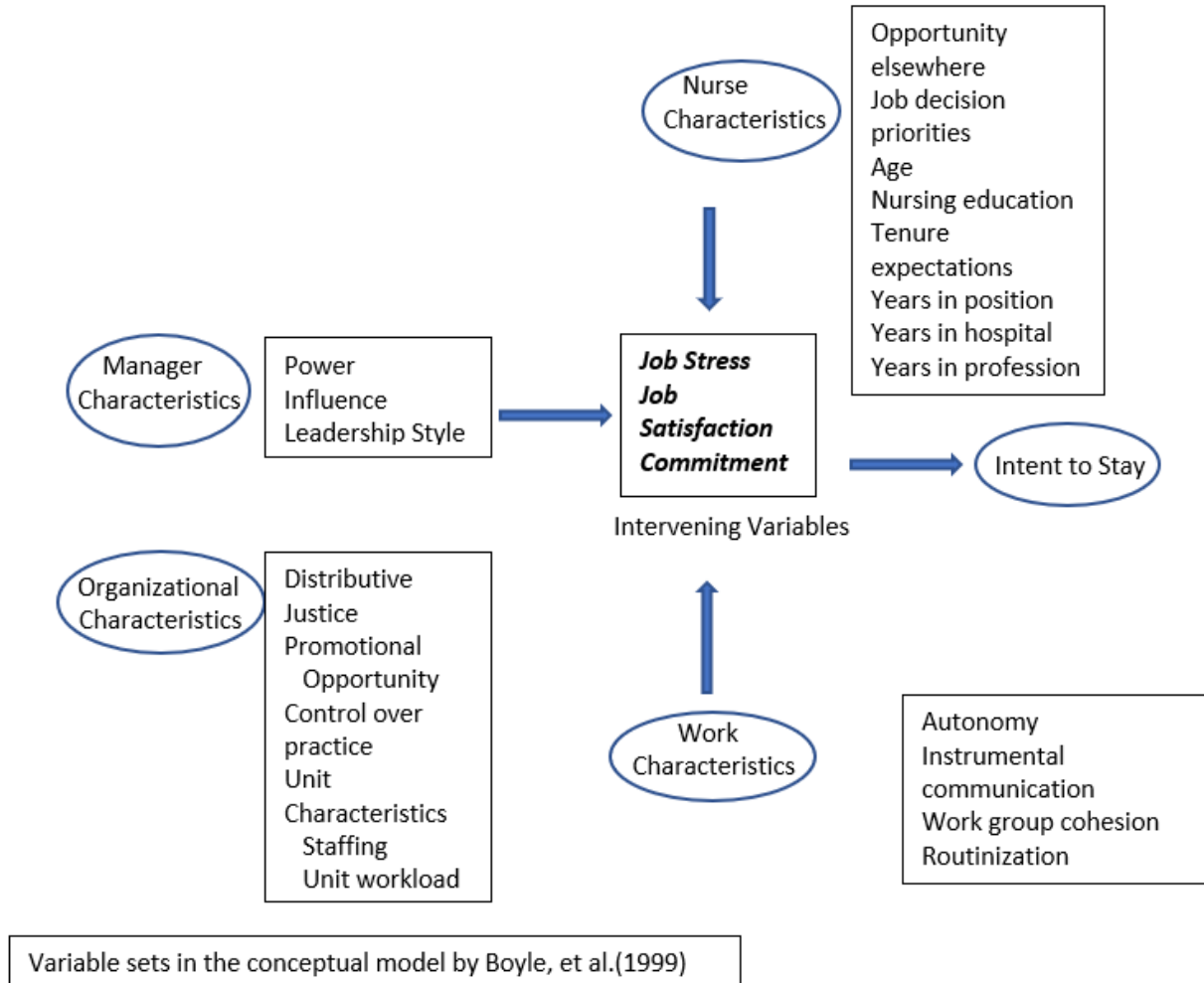


Figure 1. Boyle, D., Bott, M., Hansen, H., Woods, C., & Taunton, R., 1999, *American Journal of Critical Care*, 8, p. 363. Copyright 1999 by the American Association of Critical Care Nurses. Reprinted with permission.

Categories of predictor variables. First, manager characteristics represent power, influence, and leadership style to sustain job satisfaction, improve commitment, and enhance retention of nurses. Second, organizational characteristics represent distributive justice or equity of work, staffing, control over practice, work unit characteristics, and decision-making outside

the scope of the manager's control, which is designated as an extrinsic variable. Third, nurse characteristics represent extrinsic variables that consist of job opportunities elsewhere, job decision priorities, age, nursing education, tenure expectations, years in position, years in hospital, years as a nurse, and years married. Fourth, work characteristics are described as autonomy, instrumental communication, work group cohesion, and routinization of job duties (Boyle et al., 1999). The authors asserted that manager, nurse, work, and organizational characteristics contribute individually to job satisfaction and commitment but also to job stress (Boyle et al., 1999). For example, the essence of intent to stay for critical care nurses was illustrated through five variables with indirect effects such as managers' position and power, manager's influence over work coordination, opportunity elsewhere, promotional opportunity, and job enjoyment or satisfaction (Boyle et al., 1999).

The study also found that manager characteristics contributed significantly to each variable in the model. In support of this contention, the authors asserted that job stress, job satisfaction, and commitment act as mediators between these characteristics and the employees' intent to stay at their jobs. In other words, these characteristics directly affect the intervening variables, job satisfaction, job stress, and commitment and job satisfaction, job stress, and commitment directly affect intent to stay. Job stress, job satisfaction, and commitment were three intervening variables that emerged to predict intent to stay. Job stress was described as complex and numerous decisions in the care of patients, resolving conflicts amidst professional and bureaucratic demands and balancing many care expectations. Job satisfaction was illustrated as the degree of enjoyment in the nurses' jobs and in the nursing administration style.

Finally, commitment was described as the degree of loyalty to the organization (Boyle et al., 1999). For the present study, the focus was on the three intervening variables, job stress, job

satisfaction, and commitment. Permission to reference and reproduce Boyle’s model was obtained (see Appendix B).

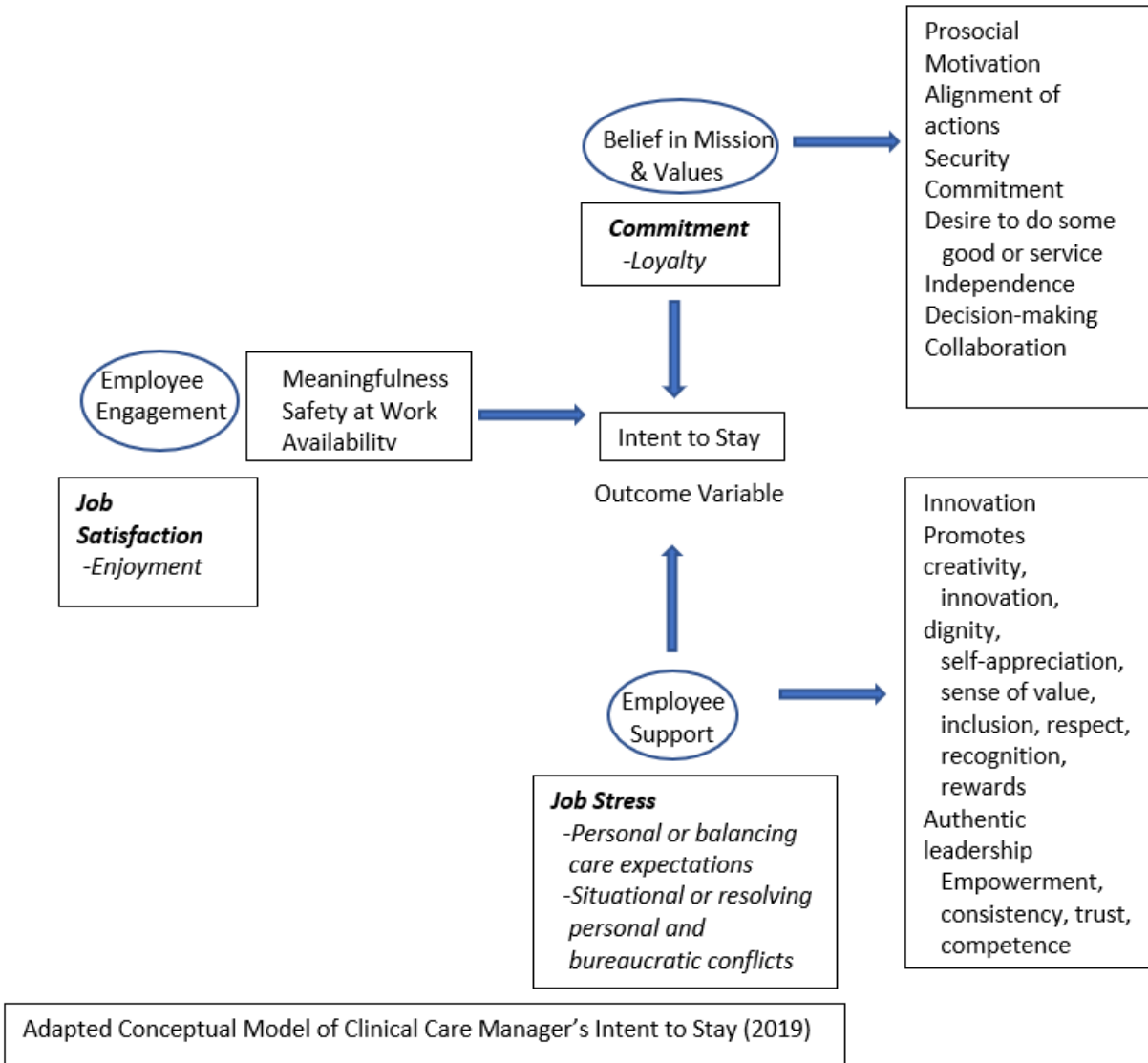


Figure 2. Adapted conceptual model of intent to stay of clinical care managers. Three intervening variables (job stress, job satisfaction, commitment) from the original model by Boyle et al (1999) were replaced by employee engagement, belief in mission and values, and employee support. Adapted from Boyle, D., Bott, M., Hansen, H., Woods, C., & Taunton, R., 1999, *American Journal of Critical Care*, 8, p. 363. Copyright 1999 by the American Association of Critical Care Nurses. Reprinted with permission.

Adapted conceptual model used for this study. In using Boyle’s conceptual model, the three intervening variables were used as a model for the predictors in this study as follows: (a)

job stress became the model for employee support, (b) job satisfaction became the model for employee engagement, and (c) commitment became the model for belief in mission and values (see Figure 2).

Employee engagement. The most successful healthcare organizations are those with highly engaged employees where internal and external values are given importance resulting in elevated levels of physical, mental, sleep, exercise, and behavioral performance (Skillman et al., 2017). The element of meaningfulness based on the Kahn's Psychological Conditions of Engagement and Disengagement at Work (PCED) theory is depicted in these elevated levels of investment at work. The theory of work engagement was first described as the totality of a person's physical, emotional, and cognitive states (Kahn, 1990). The theory was further described as having the ability to incorporate these states of being by employees into their jobs and roles (Kahn, 1990). Engagement is not static and an employee's work experience can vary at different moments that creates opportunities for employers to make changes in the work environment where engagement can improve (Jeve et al., 2015).

Employee support. Under employee support, the characteristics surveyed were workload, manager assistance to promote work and life balance, technology to support the work, support to deal with stress and burnout, providing necessary supplies, and staffing. Supportive managerial environments allowed employees to be innovative and creative without fear of negative implications (Kahn, 1990). In a study by Read and Laschinger (2015), authentic leadership and structural empowerment were shown as the key aspects of the work environment that supported new graduate nurses. The interpersonal interactions that promote dignity, self-appreciation, valuing self, and inclusion are personal elements that support an employee (Kahn, 1990). Managerial support to employees, respect, recognition, rewards, appreciation are all

linked to employee trust in the organization (Okello & Gilson, 2015). Therefore, management styles that show employee support, resilience, consistency, trust, and competence while reinforcing the employee's ability and confidence to succeed also promote psychological meaningfulness, safety, and availability (Kahn, 1990).

Belief in mission and values. Organizational mission and values represent the identity of any organization that guide its members in pursuing aligned actions (Dermol & Sirka, 2017). The development of a high level of trust in the organization promotes a feeling of safety that what employees do in support of the mission will be welcomed without fear of consequences (Kahn, 1990). On the other hand, how an organization performs in a way that is consistent with the fulfillment of a mission statement may dictate the employees' desires to affiliate more with the organization (Collini et al., 2015). Committed employees understand the core elements of the organizational mission and values and they are willing to operationalize its elements (Dermol & Sirka, 2017). As such, organizations with employees who are committed to the organization's values ignite a higher level of motivation within themselves to serve the public as a manifestation of prosocial motivation (Homberg et al., 2015). Additionally, leaders who emphasize organizational vision and focused on the future mission and the ongoing efforts to sustain performance can move the organization productively (Cheema, Akram, & Javed, 2015).

In organizations, the individual roles and relations are defined when participants perform a collective function to accomplish something good or to provide service (Fragoso et al., 2016). Clinical care managers as the sample population for this study rely on their independent skillsets and decision-making to provide care. However, the most important aspect of a successful care delivery is the ability to coordinate care through efficient communication processes as the outcome of all collaborative efforts (Shantz et al., 2016).

Intent to stay. Intent to stay is described as a conscious and deliberate decision of an employee to leave a job based on specific variables (Park et al., 2016). The interaction between interpersonal respect, diversity, mission fulfillment, and engagement may predict turnover intentions of health care practitioners (Collini et al., 2015). Maintaining skillful and talented employees imposes unique challenges for healthcare leaders to be creative and authentic in their strategies that promote motivation, enhanced employee engagement, and techniques to increase motivation (Shantz et al., 2017).

The high costs directly related to turnover of staff nurses as well as the increasing global concern about declining nurse population calls for organizational leaders to address efforts to retain nurses (Read & Laschinger, 2015; Reina et al., 2018). As such, high turnover rates and low retention of nurses and allied health professionals establish a need for organizational leaders to understand the reasons that affect healthcare professionals' intention to stay in their current positions or with the organization (Han, Trinkoff, & Gurses, 2016). Evidence also suggests a continuing gap in healthcare practitioners' use of meaningful information to strengthen engagement and work motivation (Bailey, 2016). Further, the implications of low engagement and decreased commitment to organizational mission are pervading issues among healthcare professionals (Shantz et al., 2015). Neglecting these issues has the potential to worsen costs related to staff retention issues as well as decreased productivity that can lower the general performance of the organization (Decker et al., 2016). Therefore, issues of staffing retention are a concern globally, which requires evaluation of factors that cause the rising incidence of employees who quit in a manner that leaders may understand (Rodwell et al., 2017).

This literature review was based on a postpositivist perspective. Postpositivist perspective relies on a premise that reality is complex, subjective, and constructed by people

psychologically, which is the nature of social science research (Crossan, 2003). The postpositive perspective is also described as establishing for a phenomenon instead of seeking absolute truth that highlights understanding the meaning of the phenomenon under review (Crossan, 2003). As a lens to this study, the conceptual model of intent to stay by Boyle et al. (1999) also illustrates that there are precursor variables such as manager characteristics, nurse characteristics, organizational characteristics, and work characteristics that pave the way for the emergence of intervening variables job satisfaction, commitment, and job stress that directly impact the outcome variable, intent to stay. Therefore, the adapted conceptual model of clinical care managers' intent to stay guided this literature review that focused on intervening variables, employee engagement, belief in mission and values, and employee support that serve as predictors for clinical care managers' intent to stay.

Review of Research Literature and Methodological Literature

The researcher in this present study's review of literature revealed themes regarding employee engagement, belief in mission and values, and employee support in a variety of combinations as independent or dependent variables. These include: employee engagement perspectives, factors related to intent to stay, impact of employee engagement on retention, work experience and impact on employee support, factors affecting retention, meaning of work and intention to stay, connecting mission to employees, mission fulfillment and engagement, belief in organizational vision and intent to stay (Collini & Guidroz, 2015; Frago et al., 2016; Harp et al., 2017; Huang et al., 2015; Maloney et al., 2016; Rodwell et al., 2016). Other constructs that emerged were authentic and transformational leadership as well as the impact of work environment on engagement and intent to stay, and the culture of safety that leads to engagement

and employee support (Okello & Gilson, 2015; Patrnrchack, 2015; Read & Laschinger, 2015; Rittschoff & Fortunato, 2015).

Employee engagement. Shantz et al. (2016) in their study of human resource management (HRM) practices, found that training, participation in decision-making, opportunities for practice improvement, and positive communication were all positively related to quality of care and safety via work engagement. Moreover, employees who reported higher levels of engagement were generally the beneficiaries of positive individual health outcomes, such as elevated levels of physical and mental health as well as sleep, exercise, and eating behaviors (Shuck et al., 2017). Preston (2013) illustrated high engagement for employees who reported enough control over their jobs. Not only were these employees satisfied, but their engagement also had a positive correlation to organizational commitment (Preston, 2013). As such, there is a high need for human resource practitioners globally to promote work engagement because of the costs associated with hiring and retraining staff in addition to the negative impact on organizational performance (Bailey, 2016).

Bailey (2016) also found that despite the available literature that can help organizations in boosting employee engagement, there continues to be a disparity in health practitioners' use of currently available research. On the contrary, the study by Babalola (2016) illustrated a finding that work experience is the most common explanatory variable in evaluating an employee's commitment and job performance. There are increasing demands placed on healthcare system leaders and individual health care providers to come up with innovative ways to lower expenditures while maintaining or exceeding quality of care standards (Skillman et al., 2017). Organizational leaders must try to consider that each working unit has its own set of cultural influences with specific impact on employee engagement. Employee engagement has been

found to be highly related to job performance and has an impact on employee attitudes and organizational commitment (Valentin et al., 2015). Therefore, there is a higher responsibility for any organization to invest in engagement efforts as these have a high correlation to overall organizational productivity, retention, customer service, and loyalty (Patrnchak, 2013).

Belief in mission and values. Belief in mission and values represents the underlying rationale for employees to act in a way that is prompted by prosocial motivators, which include positive social dealings and feeling of trust in the work environment (Okello & Gilson, 2015). Employee attitudes are generally positive towards an organization's mission and those attitudes were related to staff satisfaction and intentions to stay within the organization (Brown & Yoshioka, 2003). Job characteristics and work motivation go hand in hand. Preston (2013) showed that providing instrumental feedback enhanced work motivation and reduced job complexity without the employees feeling an inadequate span of control of their jobs. The conditional effect of instrumental feedback on work motivation also provides higher perceptions of job control that increases internal motivation regardless of job complexity (Preston, 2013).

In the healthcare setting, the concept of public service motivation (PSM) and its impact on belief in mission and vision cannot be undermined (Homberg, McCarthy, & Tabvuma, 2015). PSM has been illustrated as a form of altruism and the result of prosocial influences that are animated by the specific values and dispositions that can only be found in public institutions (Homberg et al., 2015). Nurses are motivated to work when the workplace environment supports a vision that promotes a culture of autonomy, job control, teamwork, and opportunities for professional development (Toode, Routasalo, Helminen, & Suominen, 2016). Additionally, having support structures and adequate staffing correlated positively with nurses' work motivations (Toode et al., 2016). To illustrate these factors, Keyko, Cummings, Yonge, and

Wong (2016) found in their study 77 influencing factors and 17 outcomes with three themes, namely: performance and care outcomes, professional outcomes, and personal outcomes that give credence to the critical role of understanding motivators in the professional environment. Further, work-engaged employees and teamwork enhanced performance and job satisfaction, which are the results of employee motivation leading to engagement (Tomietto et al., 2016). As an illustration, Tomietto et al. (2016) studied one nursing team's work engagement that resulted in higher motivational factors. Other concepts emerged such as job commitment manifested by sickness presenteeism. This concept described how sick employees who go to work because they are satisfied, motivated or addicted to their jobs but the association between job satisfaction and work engagement was not positively correlated (Karanika-Murray et al., 2016). Bakker (2017) introduced the concept of job crafting, which is a proactive behavior aimed at optimizing job fitness and work preferences that contribute to quality of care. Other findings showed that among health care practitioners, before any satisfaction to stay in the job occurs, there needs to be an understanding of the enablers and drivers that lead to patient satisfaction (Raharjo, Gugliemelmetti, DiPietro, & Toni, 2016).

Employee support. Van Bogaert, van Heusden, Timmermans, and Franck (2014) illustrated that various relationships are enhanced and intent to stay is predicted when there is a positive work environment. Employee support manifested by manageable workload, decision latitude, and social capital with nurse work engagement are important variables that also impact quality of care leading to retention (Van Bogaert et al., 2014). As an example, study findings among home health aides showed that organizations must consider visibility and positive perceptions of employees on organizational support from top to bottom as a major predictor of job satisfaction (Yoon, Probst, & Di Stefano, 2016).

Other studies also tackled antecedents to low engagement and job burnout and the correlation with turnover intent. Burnout is composed of three dimensions, which include emotional exhaustion, depersonalization, and low personal accomplishment (Crowe, 2015). Crowe (2015) also articulated that in the oncology setting, nurses and physicians are at increased risk of burnout not because of poor coping skills in dealing with the emotional toll of caring for terminally ill patients but because of a deficiency in their ability to provide self-care beyond coping. In a separate study, social workers' job satisfaction was the primary predictor of turnover intent that served as the mediating factor for the quality of work that social workers provided to patients (Pugh, 2016). However, Pugh (2016) added that job satisfaction among social workers was not dependent on maintenance variables, such as pay and effective supervision but was rather more related to feelings of achievement, autonomy, challenge of the job, and recognition. These findings reinforce the significant contribution of intrinsic motivators in employee engagement and motivation.

Ritschoff and Fortunato (2015) found a strong relationship between transformational leadership and job burnout and the mediating effects between organizational commitment and intent to quit. As such job burnout can be said to extend its effects on other organizational outcomes, such as quality of care, employee health and well-being, public service motivation, perceptions about the work environment, and patient satisfaction (Daugherty Biddison et al., 2016; Roh et al., 2016; Salyers et al., 2015).

Work safety culture and work environment. In a study conducted by Huang et al. (2016) that focused on lone truck drivers, their findings illustrated how significant relationships between safety climate and intent to stay can potentially translate into increased employee engagement and retention. Huang et al. (2016) established a claim, which highlighted that a

positive safety culture is not necessarily exclusive with safety outcomes such as avoiding physical injuries but about specific organizational outcomes with significant impact on policy and strategy. Similarly, Shantz et al. (2016) found in their study that a safe environment for patients and staff is the benefit of positive employee participation in decision-making, professional development, and communication, which are all mediated by employee engagement and belief in the organizational mission.

In contrast, Toode et al. (2016) illustrated that working conditions of nurses such as individual work influence, engagement and empowerment in the unit, and openness in communication have little effect on their desire to stay in their current jobs. Thus, there are specific work unit subcultures, such as hierarchy, which is unchangeable and in which employees have no expectation of any direct influence to their motivation or commitment at all (Toode et al., 2016). Unit managers should look at other factors that may have higher impact on intrinsic precursors to intent to stay. As an example, Daugherty Biddison et al. (2016) illustrated that perceptions about the culture of engagement and safety at work is linked to the positive correlation between perceptions of safety and employee engagement.

Transformational leadership. The role of leadership emerged as a common theme in literature review. Specific influences of transformational leadership in the cultivation of a strong workforce warrants highlighting. The Bass theory of transformational leadership asserts that transformational leaders commit themselves to inspire others to do well to benefit the institution; transformational leadership possesses qualities such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Rittschof & Fortunato, 2015). Rittschof and Fortunato (2015) also added that the success of any attempt to motivate and inspire others is dependent on the transformational leader's ability to

model behavior that is consistent with the underlying mission and values of the organization that have a direct impact on performance, effort, job satisfaction, and intent to stay (Rittschoff & Fortunato, 2015). Fragoso et al. (2016) shared a similar finding that is congruent with Kahn's construct, which describes engagement as requiring an investment in the cognitive, physical, and emotional energy in any work role.

Authentic leadership. The global concern about the aging nursing population coupled with the financial pressures placed on leaders of healthcare organizations make a pressing argument to institute sustainable solutions related to nursing productivity and retention in preparation for the nursing shortage (Read & Laschinger, 2015). It is equally important to utilize transformative leadership in building a structure of empowerment that uses relational capital to support new nursing graduates (Read & Laschinger, 2015). Patrnchak (2015) conducted a study at the Cleveland Clinic and found the need for a new people strategy that would enhance their employee engagement and satisfaction by the introduction of servant leadership. The primary importance of servant leadership will help elevate the people relationships in the organization since employee engagement provides evidence that correlates to individual, group, and organizational performance related to productivity, low turnover rates, high quality of care, and loyalty (Patrnchak, 2015). In addition, Read and Laschinger (2015) found in their longitudinal study that there is an effect between authentic leadership, structural empowerment, and relational capital on mental health and job satisfaction of newly graduated nurses.

Intent to stay. Turnover intent and attrition are variables that are detrimental to many organizational leaders and are correlated with lack of motivation, low engagement, and low job satisfaction (Fragoso et al., 2016). Although a few studies have been conducted to examine employee engagement as a mediator in an organizational context to better predict turnover,

current literature shows that turnover in healthcare can be fully mediated by engagement (Collini, Guidroz, & Perez, 2015). However, looking at job demands and job resources and the specific patterns that contribute to turnover intent, intent to stay, and burnout, it is beneficial to assign each of these factors relative weights to focus organizational interventions appropriately (Fragoso et al., 2016).

Another aspect of intent to stay is the effect of positions (staff vs. supervisors) on engagement and retention. Supervisors have a much higher work engagement and lower attrition than front line workers while the desire to stay in their jobs are static regardless of positions (Lu, Lu, Gursoy, & Neal, 2016). Employees who report enough control and latitude about their jobs also experienced increased job engagement and affective commitment among child welfare social workers (Preston, 2013). In contrast, Rodwell et al. (2017) found that engagement, trust, and loyalty were negatively related to nurses' intention to quit, which leaves engagement as the mediating factor between the relationship of staff with their managers and turnover intent.

Contrary to the above findings, the concept of prosocial motivation, which is the desire to do work to enhance the well-being of others is related to emotional labor and an imbalance can result in burnout and increased intent to leave their jobs (Dill, Erickson, & Diefendorff, 2016). Prosocial motivation was also found to be congruent with the common finding of other studies that intrinsic and extrinsic motivators are highlighted among nurses because of their lower intention to quit or leave their jobs (Conrad et al., 2016; Dill et al., 2016). Therefore, organizations must promote self-care and awareness of healthcare professionals' intrinsic and extrinsic motivators (Dill et al., 2016).

Public service motivators. Current literature is abundant in providing evidence of the impact of employee engagement, belief in mission and values, employee support on intention to

stay or job retention. While there are studies that present the direct relationship of engagement and employee support on employees' desire to stay or quit their jobs as independent variables, themes also emerged in the relationship of organizational mission as the precursor to employees feeling supported in their roles when mission aligns with their motivation to do the work (Bakker, 2017; Homberg et al., 2017).

One of the emerging themes was the influence of public service motivators. Bakker (2017) suggested that although leaders have a positive impact on job engagement, leaders are not always available to provide support to their staff. As such, self-leadership is needed for employees to set their own goals and access their own job resources (Bakker, 2017). One commonality emerged regarding certain intrinsic motivators that had an impact on the altruistic predisposition of healthcare practitioners.

Public service motivators (PSM) are described as altruism (Homberg et al., 2015). On the other hand, prosocial motivation that is enhanced by the organization's mission and the strong desire to serve the public as a moderator to job satisfaction (Homberg et al., 2015; Roh, Moon, Yang, & Jung, 2016). Specific professional duty as a predisposition to PSM was also illustrated in a focused study on social workers (Roh et al., 2016).

Emotional laborers. A unique theme also emerged related to the classification of emotional laborers. Social workers as emotional laborers are strongly impacted by PSM and Roh et al. (2016) found that job satisfaction of social workers and their PSM influenced how they provided healthcare services to their patients that ultimately affected the organizational outcomes positively. Furthermore, opening opportunities for public service solidifies the significant relationship of PSM and job satisfaction (Homberg et al., 2015).

Review of Methodological Issues

In the present research study, methodological issues in research design were anticipated based on review of literature. These issues included the use of the survey instrument, statistical methods or researcher bias. Therefore, understanding these issues assisted the researcher in the present study to carefully craft the research plan.

Survey instrumentation. Predominant in all the research articles in this literature review are variables that address the research question and the phenomena being explored with the specific survey instrument used. There were variations in the specific measurement tools for current state of employees' engagement as well as predictors of future behaviors such as intention to leave, job satisfaction, intent to stay and impact on quality of care. Additionally, there were questions about the appropriateness of cross-sectional versus longitudinal approach in data collection.

Fragoso et al. (2016) examined the significance of job demands and employee support resources as influencing variables of burnout and engagement, including the effects of burnout and engagement on health, depressive symptoms, desire to work, commitment to the organization, and intent to stay. Due to the inherent complexity of the nature of each of these variables, Fragoso et al. utilized a combination of scales to measure current state of employees, such as the Copenhagen Work Burnout Inventory Scale and the Job Engagement Scale (2016). However, in measuring the predictors of burnout and engagement, the Subjective Stress Scale and Work-Balance Scale were used to assess perceptions of work stress and work-life balance among nurses (Fragoso et al., 2016).

Issues with cross-sectional approach. Another methodological issue is the cross-sectional approach that only collects data at one point in time. Han et al. (2015) in their study of

work-related factors, job satisfaction and intent to leave among U.S. nurses found that cross-sectional study may predispose a level of limitation for changes in perceptions in comparison had the research been longitudinal or followed over a period. Karanika-Murray et al. (2016) in their examination of sickness presenteeism as an intervening factor on job satisfaction used a cross-sectional design and stressed that despite theorizing the relationships carefully, only the longitudinal approach can further inquire on the reciprocal and dynamic relationships of sickness presenteeism and the true effects of sickness presenteeism.

Stromgren, Eriksson, Bergman, and Dellve (2015) used a questionnaire to study the significant impact of social capital, such as recognition, trust, and reciprocity for job satisfaction, engagement, and clinical quality. The same questionnaire was used at the 1-year follow up (Stromgren et al., 2015). Using the prospective cohort design for 477 respondents, univariate, multiple, and logistic regression analyses were performed to explain the variance between social capital and the outcome measurements job satisfaction, work engagement, engagement in clinical quality improvements related to patient safety and quality of care. The study concluded that social capital is strongly related to job satisfaction and engagement in clinical improvements (Stromgren et al., 2015). However, certain variations in conducting the same surveys across different work units may pose issues related to the thematic analysis of the findings. Ma et al. (2015) examined the differences in quality of care among nursing units. Additionally, the study found that longitudinal examination was warranted across a period in the future because of the variations in the quality of care in the nursing unit (Ma et al., 2015).

Issues with statistical methods. Illustrating the relationships of variables is common in quantitative research and an example is the use of a statistical method such as structural equation modeling. Mazloom, Yaghubi, and Mohammadkhani (2016) used this statistical method to show

structural relationships such as analyzing the influence of independent variables on dependent variables. Valentin et al. (2015) examined the relationships of independent variables such as employee engagement and job satisfaction and Van Bogaert et al. (2014) illustrated quality of care and retention as dependent variables.

Bias. Many researchers have commented that the length of the questionnaire may be a limitation regardless of whether conducted online or in person. Hough, Green, and Brownlee (2015) posited that a major drawback of a lengthy questionnaire is the potential for attrition that may predispose a study to inadequate sampling or representation of the population. Research bias can also cause attrition of subjects over time (Read & Laschinger, 2015). As such, research bias may result in non-response bias that weakens the case for causality in longitudinal studies (Roh, Moon, Yang, & Jung, 2016). Smith and Noble (2014) suggested minimizing selection bias in quantitative studies must account for participants who withdraw from the study or who are lost from follow-up to avoid sample bias or change in characteristics if utilizing comparison groups.

Another illustration of research bias is the study by Hough et al. (2015), which examined the impact of an ethical environment on employee engagement that revealed social desirability bias is a true limitation on human perception that is of concern. Social desirability bias suggests that some respondents may believe that there are more correct or right answers (Hough et al., 2015). However, Hough et al. (2015) also added that social desirability limitation in research bias can be mitigated through anonymity and protecting confidentiality when conducting online surveys to preserve the integrity of perspectives when answering the questions. Finally, a critical issue that can cause bias is the lack of race or gender diversity in the sample that may weaken the integrity of the findings (Collini et al., 2015). As an illustration, Collini et al. (2015) also pointed out related limitations in conducting employee engagement surveys around lack of variance in

responses when using subscales that may project positive responses when the means for the subscales are already set above the midpoint.

Synthesis of Research Findings

Available research on the topic of employee engagement, belief in mission and values, and employee support as predictor variables on intent to stay illustrated several themes. These themes emerged after review of the conclusion of each research study while distinguishing the independent or dual impact of the variables of engagement, belief mission and values, and employee support on intent to stay (see Appendix A). Almost all the studies revealed validating results of these relationships while a distinguishable theme emerged related to antecedents to employee engagement and employee support such as job burnout, work factors, leadership, and so on (Yoon et al., 2016).

Employee engagement synthesis of research findings. Employee engagement has been found to have positive impact on job perceptions although the perspectives are different between academics and practitioners (Bailey, 2016). Mayo (2016) called for the need to constantly validate employee engagement that is reflective of an organization's currently existing situation and the impact of its current influencers and drivers. In the field of nursing education, engagement was found as a motivational factor to enhance learning (Tomietto et al., 2016). The results of the studies that follow indicate individual effects and combined effects of employee engagement on one of the variables as well as a combination of different variables. Huang et al. (2016) articulated that employees who put diligent efforts such as physical, mental, and emotional resources in their roles are more content in performing their duties. On the contrary, disengagement occurs when an individual develops the need to defend self as a means of self-preservation from outside factors, through withdrawal, shielding true identities and feelings, and

serves as the mediating factor between burnout and project success (Harris, 2016). Skillman et al. (2017) asserted that helping staff improve professionally is expensive, while maintaining qualified and talented employees has become more challenging.

Several studies also provided evidence on the positive correlation of employee engagement and job performance. Keyko et al. (2016) found in their study that work engagement was an influencing factor on employee performance and care outcomes. But in taking multiple dimensions of employee performance in relation to work engagement, Reijseger et al. (2016) found that highly engaged employees are more open-minded, which leads to higher work satisfaction and positive levels of performance (2016). Kumar and Pansari (2015) claimed that measuring employee engagement may lead to maximizing the benefits to the organization because satisfied employees are happily providing good customer service. Thus, engaged workers and teamwork lead to better performance (Tomietto et al., 2016).

Belief in mission and values synthesis of research findings. Mission and values emerged as a recurring theme in employee engagement and retention (Collini et al., 2015). Additionally, studies have shown a predominant relationship between mission fulfillment and retention as well as values arising from public service (Collini et al., 2015; Homberg et al., 2015). Workplace characteristic such as nonprofit organizations also contributed to engagement and intention to stay as a result of the distinct organizational mission that was aligned with the employees' prosocial motivation (Knapp et al., 2017). The role of work values, personality traits, and positive workplace on intent to stay is crucial (Chen, Perng, Chang, & Lai, 2014).

Work values significantly affect normative commitment and intent to stay or intent to leave through pay satisfaction as a work characteristic (Wang, Chen, Hyde, & Hsieh, 2010). Wang et al. (2010) also added that changing of work values can be attributed to the generational

divide where younger workers tend to be more materialistic and individualistic. Equally important is the belief in professional values that align with organization mission and values leading to intent to stay. Therefore, practice environments in the nursing profession that are cultivated with belief in mission and values must be sustained because of its significant impact on whether nurses remain or look for other opportunities (Yarbrough, Martin, Alfred, & McNeill, 2016).

Employee support synthesis of research findings. Employees' perception of support from their managers heightens intent to stay in their current job roles or remain in the organization (Frampton et al., 2016). Okello and Gilson (2015) illustrated that aside from workplace trust, relationships that encourage social interactions at work have an impact on intrinsic motivation that not only contributes to high quality of care but also on performance and retention. Employee support does not just come from the organization but also from peers. This was illustrated in the study by Ha et al. (2015), which showed support from other staff level workers, supervisors, and work schedules that significantly impacted intent to stay if positive and intent to leave if the experience was negative. Antecedents to employee support were also shown in the element of workplace trust, which can be attributed to perceptions of organizational support as well as how individuals perceive each other (Christie, Jordan, & Troth, 2015). Thus, employee support transcends both in the organizational as well as in the interpersonal level ranging from emotions, physical safety of the work unit, and perceptions about leaders and co-workers (Okello & Gilson, 2015).

Intent to stay synthesis of research findings. The themes that emerged on intent to stay represent a multidimensional picture that encompassed psychological, emotional, and physical realms of influences. As an example, employees' desire to stay or leave their jobs is

multifactorial in nature that may encompass work relationships, autonomy, physical and psychological demands, and support from peers and supervisors (Han et al., 2016). Yarbrough et al. (2017) asserted many determinants of intent to stay among nurses, which include career development, job satisfaction, and professional values. There was also a finding of perceived value conflicts among nurses that may affect their intent to stay positively or negatively (Yarbrough et al., 2017). The emerging themes on occupational commitment and intent to stay were also illustrated in many studies. Wang, Tao, Ellenbecker, and Liu (2011) examined the relationship among variables related to intent to stay and found that occupational commitment and nurses' job satisfaction were strong predictors of intent to stay in their current roles or within the organization. Additional findings also showed the predictive qualities of positive group dynamics, preceptorship, and mentorship on newly licensed nurses' satisfaction and intent to stay (Bontrager, Hart, & Mareno, 2016).

The role of leadership and its impact on intent to stay warrants highlighting as a theme in this literature review. Authentic leadership has been shown to build trust, engagement, and intent to stay of teachers year after year (Bird, Wang, & Murray, 2012). Specifically, teacher trust and engagement were found to be significantly related to principal authenticity, which is illustrated through a showing of principal self-regulation, employee support through professional development, and programs to sustain professionals (Bird et al., 2012).

Understanding intent to stay as an outcome variable and the predictive qualities of employee engagement, belief in mission and values, and employee trust showed a gap in literature as it pertains to clinical care managers in the inpatient and outpatient settings. Organizational support that includes positive perception task performance are significant predictors of intention to stay (Yoon et al., 2016). Salyers et al. (2015) studied the relationship

between the impact of burnout in quality of care due to reduced job satisfaction, increased mental health problems, and increased staff turnover. On the contrary, the effects of negative work-related factors on organizational commitment have been illustrated in the study of Han et al. (2015), which showed lower retention rates and higher intent to leave the job.

Critique of Previous Research

The quantitative studies have concentrated on the use of surveys to assess the various influences or predictive qualities of outcome variables. Current review of literature illustrated the richness of knowledge regarding employee engagement and motivation, either individually or in combination with belief in mission and values on intent to stay. The use of validated scales also guided majority of the research studies as was also discussed below.

Use of scales in surveys. Quantitative method in research allows for measurement of responses using a scale that can be quantified and analyzed using scores (Reina et al., 2018). These scores are also used as predictors as illustrated in the study by Reina et al. (2018) on the impact of managerial influence tactics on intent to leave and job satisfaction. Caesens, Stinglhamber, and Marmier (2016) used an engagement scale to predict workers' turnover intentions. In studying sickness presenteeism as a determinant of job satisfaction through motivational affective states, the authors used cross-sectional study of a population using an online survey and measured engagement using a scale, which showed that employees who come to work sick do not represent satisfaction with their jobs (Karanika-Murray et al., 2016).

The use of scales was also predominant in all the primary quantitative research studies in this literature review. The Utrecht Work Engagement Scale (UWES) is a 9-item questionnaire that asks questions such as "At my work, I feel bursting with energy" that provides predictive value in turnover intentions (Caesens et al., 2016). Bakker (2017) illustrated the use of the

UWES using a Likert scale (0 to 6) to assess the level of agreement or disagreement of the respondents to each of the questions. Based on the responses, Bakker (2017) established a score for work engagement to test job crafting and quality of care utilizing Cronbach's alpha as the estimate of lower reliability of the two variables being tested. Other researchers have used a combination of scales to study correlations of multiple variables. Crowe (2015) studied the relationship of burnout and poor coping skills among Oncology physicians and nurses using the Maslach Burnout Inventory-Health and Social Services Scale and the UWES.

Gallup surveys. Gallup surveys were also utilized in the quantitative studies reviewed in this literature review. Daugherty Biddison et al. (2016) utilized the Gallup Q12 that measures employee engagement among staff in the inpatient and outpatient units to test the relationship of nurse burnout and rates of hospital urinary tract infection (UTI) and surgical sites infection (SSI). The Gallup Q12 has been validated by the Gallup Organization through an iterative process that involves a range of patient units with high attrition rates and ones with highly productive and highly functional teams (Daugherty Biddison et al., 2016). By establishing the correlations between these variables and patient satisfaction, the projected annual cost-savings of \$28 to \$69 million a year becomes credible (Daugherty Biddison et al., 2016). This finding is a strong validation of return on investment when advocating for strategic measures to reduce burnout and to increase patient satisfaction. Other researchers also utilized the Gallup Q12 to validate the relationship between employee engagement and patient satisfaction or quality of care (Patrnchak, 2013). Wittman (2017) stressed the need to address the worldwide employee engagement crisis by showing that engagement, like disengagement is contagious. Utilizing the Gallup Q12, the study validated four variables that organizations must consider in moving the employee engagement needle upwards (Wittman, 2017).

Meta-analyses and secondary research methods. There was also a handful of studies that utilized meta-analyses and secondary research approach. In a study by Homberg et al. (2015), meta-analysis to study a vast array of empirical evidence due to conflicting information about the link between public service motivation (PSM) and job satisfaction. There were also two qualitative and mixed-methods research respectively. Okello and Gilson (2015) conducted a meta-analyses of qualitative research studies that provided correlation between health worker trust and motivation. Skillman et al. (2017) utilized mixed-method research with the approach of qualitative thematic coding from data of 21 programs with active engagement of physicians as part of the interventions. The results of the study revealed that successful programs in today's healthcare delivery system models considered physicians' values and engaged employees and elevated levels of health, sleep, exercise and sleeping behaviors (Skillman et al., 2017). Sheth (2016) conducted a case study research about engagement and motivation of millennials at Reddington Corporation in England. Sheth analyzed the organization's journey to becoming a target of employment for millennials (2016). Despite the challenge, the study revealed that humanizing business and choosing personal enhancement over advancing professional interests offers a win-win for both the employee and the organization (Sheth, 2016).

Limitations

A limitation that emerged as a theme is the cross-sectional approach. Cross-sectional approach studies variables of a hypothesis at a specific time period (Williams, Baath, & Phillip, 2017). A study by Breugh, Ritz, and Alfes (2017) surveyed government employees in Bern, Switzerland and utilized the cross-sectional approach, which predisposed the data to common source bias when comparing the impact of public service motivation and self-determination on job satisfaction with data coming from one source. As an example, longitudinal study across two

points in time about a student done by a teacher and then again completed by the same teacher as a researcher on the same student may provide a broader perspective of the sample population or subject and could extend ways and perspectives of schooling even though longitudinal research in qualitative study has been shown to be the most appropriate (Compton-Lilly, 2016). Han et al. (2015) utilized a three-wave longitudinal survey to study work-related factors associated with job satisfaction and intent to leave.

There were also instances when researchers utilized the cross-sectional approach in their studies, and they found the necessity to recommend the longitudinal approach in future studies. As an example, Ma et al. (2015) studied the relationship of nursing units with better working environments and quality of care as outcomes. Ma et al. (2015) concluded that a longitudinal study is warranted in future research to explore the variations in nursing unit performance as work environments change.

Summary

In today's value-based purchasing healthcare reimbursement systems where quality outcomes are the goals, there are added pressures placed on leaders to reduce unnecessary expenditures. Leaders of healthcare organizations must invest in efforts that identify factors that enhance employee engagement, in solidifying the socialization of organizational mission and values, and in enhancing and sustaining support of employees to bolster intent to stay in their current roles or with the organization (Bird et al., 2012; Read & Laschinger, 2015). A key challenge among organizations and professional disciplines is the use of employee engagement principles that are utilized differently among academics than front line organizational practitioners (Bailey, 2016). As an example, Litchfield, Cooper, Hancock, and Watt (2016) found that human capital management is a predictor of retention and well-being of workers.

The literature review for the present study supported the notion of continuous organizational movement to sustain and retain employees. Specifically, the need for a sustained method to validate employee engagement is essential to identify influencers and drivers of engagement (Mayo, 2016). Additionally, motivational features in employees have been causally-linked to workplace conditions that are reflective of intrinsic motivation (Toode et al., 2016). Employee trust also transcends from an organizational to interpersonal levels that may positively impact emotions, physical safety of the work unit, and positive perceptions about leaders and colleagues (Okello & Gilson, 2015). Dill et al. (2016) added findings of the direct relationship between intrinsic and extrinsic motivation on what employees perceive as outcomes that lead to job burnout. As such, workers who show up to work sick reflect job satisfaction based on internal motivation and engagement (Karanika-Murray et al., 2016). Therefore, the findings based on literature review supported pursuing a research study to contribute new information to current body of knowledge related to the predictive qualities of employee engagement, belief in mission and values, and employee support on intent to stay in their current positions among clinical care managers in the inpatient and outpatient care settings.

Chapter 3: Methodology

The rising cost of healthcare and the evolving complexity of today's healthcare reimbursement predispose healthcare organizations to think of ways to engage and motivate its workforce of healthcare providers to sustain job satisfaction (Patrnchak, 2013). In a managed care setting that is focused on population health management, there is room to explore the impact of employee engagement, belief in mission and values, and employee support on intent to stay. Previous studies have targeted employees in healthcare, media, and business, among others (Bakker, 2017; Conrad et al., 2017; Preston, 2013). However, with a global concern about the aging nurse population and the rising complexity of medical and social issues of aging Americans, organizational leaders must address attracting and retaining nurses and social workers who are the right fit for the job (Read & Laschinger, 2015). On the other hand, focused studies related to nurses and social workers in a managed healthcare setting is limited. This study added to the current body of knowledge by examining the predictive variables, employee engagement, belief in mission and values, employee support on the outcome variable, intent to stay using a population of clinical care managers that have not been extensively studied in the past. In this chapter, a discussion of the detailed review of the methodology, research process, related procedures, and internal and external validity was included.

Purpose of the Study

This quantitative research study was focused on examining whether employee engagement, belief in the organization's mission and values, and employee support predict intent to stay among clinical care managers in the inpatient and outpatient settings. In any research study, an independent variable represents the characteristic or quality that is hypothesized to

influence the dependent variable and a dependent variable is a value that is affected by other variables (Porta & Last, 2018). For the present research study, there were three independent variables: (a) employee engagement, (b) belief in the organization's mission and values, and (c) employee support and the dependent variable was intent to stay.

Employee engagement is a psychological state that is influenced by an employees' internal work motivation, manifested by a sense of meaning, feeling of safety, and perceptions of readiness to continue performing a duty (Kahn, 1990). Additionally, engagement is a product of the right conditions at work for an employee of an organization (Reijseger et al., 2016). Belief in the organization's mission and values represents employees' commitment to uphold the core elements of an organization's identity through alignment of actions in support of the mission and values (Dermol & Sirka, 2017). Employee support is the consistent ability of organizational, managerial, and human resourcing practices to provide reinforcement to promote the physical and emotional well-being of employees that may come in the form of tangible and intangible rewards and recognition (Okello & Gilson, 2015). Intent to stay is the deliberate and willful desire of an employee to not leave a job based on specific structural and relational variables (Park et al., 2016).

The target population consisted of clinical care managers who were licensed nurses or clinical social workers in inpatient and outpatient care settings. Collectively, these clinical care managers provide care for patients utilizing the principle of population health management. The focus of population health is to identify the contributing elements that may impact the distribution of health problems across population aggregates (Cowell, 2016). The unique work and corresponding challenges that clinical care managers face that affect their intent to stay in their roles warrant organizational leaders to prioritize efforts for engagement. The potential to

cause improved engagement on positive social change may include (a) assisting organizational leaders to describe unique challenges that clinical care managers face, (b) providing an illustration of employee engagement, belief in organization's mission and values, and employee support in the managed care population health setting to increase the likelihood of employees' intent to stay, and (c) assisting organization leaders to be focus-driven in their approach to improve engagement, promoting belief in organizational mission and values, and employee support.

The findings were analyzed through the lens of "Managers' Leadership and Critical Nurses' Intent to Stay" conceptual model developed by Boyle et al. (1999). The model was based heavily on established literature. The authors asserted that critical care nurses' intent to stay at their jobs is related to predictor variables represented by four categories, which include manager characteristics, organizational characteristics, nurse characteristics, and work characteristics that contribute individually to job satisfaction, commitment, and job stress (see Figure 1). Job stress, job satisfaction, and commitment act as mediators between these characteristics and the employees' intent to stay at their job. Job stress was described as complex and numerous decisions in the care of patients, resolving conflicts amidst professional and bureaucratic demands, and balancing many care expectations. Job satisfaction was illustrated as the degree of enjoyment in the nurses' jobs and in nursing administration style. Finally, commitment was described as the degree of loyalty to the organization (Boyle et al., 1999).

For this study, the focus was on the three intervening variables, job stress, job satisfaction, and commitment. An adapted conceptual model (see Figure 2) was developed for this research study to illustrate the modification to fit the independent variables. Therefore, job

stress was the model for employee support, job satisfaction was the model for employee engagement, and commitment was the model for belief in mission and values.

Research Questions and Hypotheses

The following questions research questions guided this study:

RQ 1. Does employee engagement predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H1_o. Employee engagement does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H1_a. Employee engagement predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

RQ 2. Does an employee's belief in the organization's mission and values predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H2_o. Belief in mission and values does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H2_a. Belief in mission and values predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

RQ 3. Does employee support predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

H3_o. Employee support does not predict intent to stay among clinical care managers in the inpatient and outpatient care settings.

H3_a. Employee support predicts intent to stay among clinical care managers in the inpatient and outpatient care settings.

Research Design

The present research study utilized a quantitative causal-comparative research design. Researchers use a quantitative causal-comparative research design to examine possible causes for the observed differences among groups and the causes or differences among these groups already exist with two or more variables (Berger, 2018). Causal-comparative research begins with a known outcome, which is the dependent variable and a group distinction as a possible cause to the effect, which are the independent variables (Berger, 2018). The present study was considered retrospective or ex-post facto since the data already existed and the potential causes to predict the outcome of the dependent variable were already known. The causal-comparative research design for this study was appropriate to examine whether the independent variables, employee engagement, belief in organization's mission and values, and employee support predict intent to stay among clinical care managers in the inpatient and outpatient settings.

The target population, which consisted of clinical care managers, provided a response at the beginning of the survey as to whether they were intending to stay with the organization in the next three years and the dichotomous nature of the question naturally groups the respondents into two. Further, illustrating the relationships of variables is common in quantitative research and an example is the use of a statistical method such as structural equation modeling. Mazloom, Yaghubi, and Mohammadkhani (2016) used the statistical method to show structural relationships such as analyzing the influence of independent variables on dependent variables. Therefore, this research study was conducted without researcher intervention or random assignment as the responses of the target population were already naturally occurring based on archival data.

Target Population, Sampling Method (power), and Related Procedures

The population of care managers in the United States has grown in the last century across a variety of care settings, especially due to a significant increase in the number of patients with chronic conditions that may require care management oversight and coordination (Joo & Huber, 2017). The target population for this study consisted of clinical care managers who work collaboratively with physicians, other clinicians and nonclinical personnel, external partners in care, and other third-party care providers who service patients in inpatient and outpatient care settings in a large metropolitan health system in the western United States. The health care system was comprised of a large medical center and a vast physician network entity that employs licensed nurses (Registered Nurses and Licensed Vocational Nurses) and clinical social workers who function as clinical care managers in the inpatient and outpatient settings.

There were approximately 160 employees under this category. Social workers comprised 74 employee-respondents and they were either masters prepared (MSW) or licensed clinical social workers (LCSW). The nurses comprised 86 employee-respondents and they were either licensed vocational nurses (LVN) or registered nurses (RN). Out of the 160 respondents, 110 worked in the inpatient setting and 50 worked in the outpatient setting. Their tenure in the organization ranged from less than 1 year ($n = 11$), 1 to 3 years ($n = 57$), 4 to 6 years ($n = 32$), 7 to 15 years ($n = 37$), and greater than 15 years ($n = 23$).

The patients that the clinical care managers served were uninsured, insured by traditional commercial insurance or by Medicare, Medi-Cal or other government insurance. The goal of clinical care management is to achieve positive health outcomes through patient-centered and integrated care by assessing patient care needs, coordinating care to avoid delays, and avoid unnecessary utilization of services (Joo & Huber, 2017). Therefore, the unique work of the

clinical care managers in this organization provided an estimate that may be applicable to organizations with similarly situated staffing structures.

Quantitative research studies rely on representative sampling as a practical method to study one or more samples from a population rather than the entire population (Randolph & Myers, 2013). Alpha value, effect size, and statistical power are the major elements required to calculate the sample size (Randolph & Myers, 2013). Moreover, the power of a statistical test is the probability that the null hypothesis will be rejected if false based on effect size, alpha level, and sample size (Faul, Erdfelder, Buchner, & Lang, 2009).

In quantitative research, sample size is an important consideration when determining the statistical significance of a correlation so that even if there is a strong correlation, there may be a sampling error if the sample size is small; conversely, if the correlation is weak, there might still be a statistical significance if the sample size is large (Randolph & Myers, 2013). Cohen (1992) recommended the use of power analysis in planning, reporting, and interpreting research results. When conducting quantitative research, Cohen (1992) asserted that the researcher must know the necessary N or number to attain the power for the desired Alpha (α) or the significance level and effect size.

However, statistical power for social science research has no standard value or range but it may vary from .35 to .48 for a medium size effect (Anderson, Kelley, & Maxwell, 2017). Although social science literature has few sample size recommendations for pilot and exploratory studies, several researchers have suggested that a sample size with N between 10 and 30 may have practical advantages (Johansson & Brooks, 2009).

Binary logistic regression analysis sample size. In the present study, binary logistic regression analysis was conducted. Binary logistic regression is a method for modeling the

nominal outcome of variables in which the odds of the outcomes are modeled as a linear combination of the explanatory variables (Bewick, Cheek, & Ball, 2005). The dichotomous nature of the outcome variable in the present study related to intent to stay within the next three years with a “Yes/Unsure” or “No” responses and the selection of three distinct predictor variables, employee engagement, belief in mission and values, and employee support made this approach to analysis appropriate. Although there was no predetermined cut-off point for sample adequacy in logistic regression, the larger the sample size, the lower incidence of bias; but even in smaller sample sizes, there are best practices to minimize potential volatility (Osborne, 2015).

Related sampling procedures. Researchers use nonprobability sampling, which is the selection of participants in a non-random manner and consists of identifying the target population, defining the sample frame, and recruiting the sample from the sampling frame. Sampling frame is also a critical method used by researchers to identify members of a population who qualify to be part of a given sample based on a certain boundary or specific parameters (Given, 2008). The population for the subject organization’s employee engagement survey consisted of a pool of approximately 17,000 clinical, nonclinical, and administrative personnel. In this study, the selected sample was comprised of clinical care managers using demographic information such as job title, professional designation (nurse or social worker), and tenure were included in the descriptive statistics. Therefore, to obtain a representative sample in this study, a nonprobability sampling was used to accommodate this study’s inclusion criteria.

Instrumentation

Secondary data was analyzed from the completed May 2018 annual employee engagement survey by the subject organization and the survey instrument was developed by The Advisory Board Company, a private organization. Authorization from The Advisory Board

Company was obtained to reference specific materials related to their employee engagement survey. Utilization of secondary data is described as extracting existing raw information to test new hypotheses or to answer new research questions (Dunn, Arslannian-Engoren, DeKoekkoek, Jadack, & Scott, 2015). However, for this study, specific inclusion criteria and demographics were used to extract the secondary data from those respondents. Included were job titles, professional designation (nurse or social worker), tenure, and positions (staff, lead, supervisor or manager). At the time that the survey was conducted by the subject organization between April 2018 and May 2018, employees received an electronic link via email.

In the present research study, the secondary data contained responses to a Likert-scale survey namely: strongly disagree, disagree, neutral, agree, and strongly agree. Likert-scale surveys are used by researchers to measure attitudes using points or anchors and can either be ordinal or interval scale (Chyung, Roberts, Swanson, & Hankinson, 2017). Another important benefit of using secondary data is the ability for researchers to analyze relationships of variables or subgroups within a population that were not previously examined, which may offer new contributory findings to currently existing research (Dunn et al., 2015).

The 42 items in the survey instrument contain Likert-scale responses (see Appendix C) that illustrate the engagement drivers in the areas of employee support, belief mission and values, professional growth, teamwork, communication input, manager effectiveness, feedback and recognition, and baseline satisfiers (The Advisory Board Company, 2017). Dunn et al. (2015) noted that using secondary data poses low risk to participants while offering a prudent approach, especially since primary researchers often gather more data than what they initially analyze. In a study by Powers and Reeve (2018), a cross-sectional survey instrument was used to determine determinants associated with nurses' perceptions, self-confidence, and invitations of family

presence during resuscitation in the intensive care unit. The 19-item survey revealed a strong correlation between the variables as strongest predictors of positive perceptions of nurses to invite family members during a patient's resuscitation (Powers & Reeve, 2018). As such, secondary data was the most feasible method of using existing information based on the subject organization's already concluded 2018 employee engagement.

Validity. Due to proprietary reasons, The Advisory Board Company (ABC), through an official representative released the engagement index and methodology validation document (see Appendix C) that provided research background and survey testing as background for their research (ABC, 2017). ABC is a private best practices organization that uses best new ideas, proven best practices, technology, research, and consulting to help improve organizational performance of their clients worldwide (ABC, 2018). ABC's development of its employee engagement survey incorporated research studies by Harter, Hayes, and Schmidt (2002) that illustrated the use of the Gallup Workplace Audit (GWA) to form the basis to measure engagement as the independent variable in their study. The GWA is a 12-item instrument developed from studies of work satisfaction, work motivation, supervisor effectiveness, and work-group effectiveness (Harter et al., 2002). In reviewing the literature provided by ABC, there were nine out of 42 questions in the ABC survey that were the same or like the GWA. Additionally, the nationwide data taken from ABC's engagement survey results from healthcare organizations across the nation revealed a 34.2% nurse engagement and a 7.4% disengagement, which was referenced in a study by Hilton and Sherman (2015) to work on strategies to sustain employee engagement.

Validating the survey instrument is important in measuring the intended variables through construct validity (Dibble et al., 2017). Construct validity requires researchers to

illustrate empirical evidence to support the assertion that the measure is accurately observing what it was designed to be measured (Allen, 2017). The research behind the survey instrument developed by the researchers at The Advisory Board Company aimed to determine the characteristics of engagement and then to identify organizational attributes to an employee's likelihood to possess those characteristics. ABC (2017) added that the characteristics of engagement were revealed through extensive qualitative meta-analysis of organizational psychology literature that are indicative of engaged employees. For the present study, although ABC claimed the validity of the survey instrument, the absence of available published evidence to support the claim called for external validation using exploratory factor analysis (EFA) to determine the correlation between multiple variables prior to data analysis.

Exploratory factor analysis. Exploratory factor analysis (EFA) has been traditionally used by researchers to sort out individual items in a scale while allowing different variables to be used for as long as expected similarities exist (Buchanan, Valentine, & Schulenberg, 2014). EFA is a method that facilitates the generation of hypotheses or theories that provide an explanation of the patterns of correlations (Haig, 2018). This entails grouping these variables into related categories or factors that represent underlying constructs to the data (Oller, 2014). EFA is grounded in one or another type of correlation, usually the Pearson product-moment correlation since the Pearson correlation assumes a linear relationship where high and low scores on the variables examined agree with each other (Oller, 2014). Factor analysis allows the researcher to examine multi-dimensional relationships that exist between three or more variables (Buchanan et al., 2014). EFA was necessary to conduct in this research study in order to establish the natural subsets or dimensions in the questions and answers that are to be present in the instrument. In this research study, the independent variables employee engagement, belief in

mission and values, and employee support were evaluated as predictor variables on the outcome variable, intent to stay.

Measuring employee engagement. Employee engagement is a state of mind and an outcome of the necessary conditions for all employees (Reijseger et al., 2016). Kahn illustrated work engagement as an employee's investment of cognitive, physical, and emotional energy in their jobs (Fragoso et al., 2016). The Advisory Board Company defined employee engagement as the employee's willingness to provide additional effort, feeling of inspiration to do their best work, emotional commitment to the organization, and the desire to remain as an employee in the future (ABC, 2017). As such, the process of employee engagement requires consistent enhancing of employees by promoting optimization of physical, cognitive, and emotional states (Meyer, 2017). Work engagement is not fixed that makes employee experience different, which provides opportunity areas for organizational leaders to improve (Jeve et al., 2015).

The engagement index validated by The Advisory Board Company was comprised of four items and each item was measured using a six-item Likert scale (ABC, 2017). The four items were: (a) This organization inspires me to perform my best, (b) I am willing to put in a great deal of effort to help this organization succeed, (c) I would recommend this organization to my friends as a great place to work, and (d) I am likely to be working for this organization three years from now. Response options for these questions included strongly agree, agree, tend to agree, disagree, and strongly disagree. Respectively, numerical scores were assigned that ranged from 6 as the highest, which corresponds to strongly agree, to 1 as the lowest, which corresponded to strongly disagree. Aggregating the responses required calculation of the mean scores of all the responses. Therefore, the four items mentioned above addressed the state of employee engagement for the selected population in this study.

Measuring belief in mission and values. Organizational mission and values represent the identity of any organization that guide its members in pursuing aligned actions (Dermol & Sirka, 2017). Leaders who emphasize organization vision and focusing on the future mission and the ongoing efforts to sustain performance can move the organization productively (Cheema et al., 2015). Organizations with employees who are committed to the organization's values ignite a higher level of motivation to serve the public as a form of prosocial motivator (Homborg et al., 2015). Motivation is inherent and an internal influencer for an employee to act based on the effects of social interactions and high regard for the workplace (Okello & Gilson, 2015). Therefore, indicators that illustrate an employee's passion, goals, and behaviors must be recognized by organization leaders to guide them in setting action plans to sustain a positive working environment (Conrad et al., 2015).

The items used as engagement drivers by The Advisory Board Company (2017) were utilized for this research to validate employees' belief in organizational mission and values. Belief in mission and values was measured based on seven items (see Appendix C) and each item was measured using a six-item Likert scale under the category of mission and values (ABC, 2017). Response options for these questions included strongly agree, agree, tend to agree, disagree, and strongly disagree. Respectively, numerical scores were assigned that ranged from 6 as the highest, which corresponds to strongly agree, to 1 as the lowest, which corresponds to strongly disagree. Responses were aggregated to calculate the mean scores. The items under belief in mission and values were the following: (a) I believe in my organization's mission, (b) I understand how my daily work contributes to the organization's mission, (c) My organization gives back to the community, (d) My organization provides excellent care to patients, (e) My organization provides excellent customer service to patients, (f) Over the past year, I have never

been asked to do something that compromises my values, and (g) The actions of executives in my organization reflect our mission and values (ABC, 2017).

Measuring employee support. Supportive managerial environments allowed people to be innovative and creative without fear of negative implications (Kahn, 1990). Managerial support to employees, respect, recognition, rewards, appreciation are all linked to employee trust in the organization (Okello & Gilson, 2015). The interpersonal interactions that promote dignity, self-appreciation, sense of value, and inclusion are personal elements that support an employee (Kahn, 1990). Employees feel supported when they achieve a sense trust from managers and leaders that encompasses safety at work, interpersonal connections with co-workers, and experiences and perceptions about organizational leaders and co-workers (Okello & Gilson, 2015). A lack of trust may predispose organizations to higher turnover intentions and declining commitment of the employees (Christie et al., 2015).

In this study, employee support was measured with six items. Each item was measured using a six-item Likert scale. Respectively, numerical scores were assigned that ranged from 6 as the highest, which corresponds to strongly agree, to 1 as the lowest, which corresponds to strongly disagree. Responses were aggregated to calculate the mean scores. The items under employee support were: (a) I have a manageable workload, (b) My manager helps me balance my job and personal life, (c) My organization does a good job of selecting and implementing new technologies to support my work, (d) My organization helps me deal with stress and burnout, (e) My organization supplies me with the equipment I need, and (f) My unit/department has enough staff (ABC, 2017).

Measuring intent to stay. Employees' intent to stay was the dependent or outcome variable in the present study. Intent to stay is described as a conscious and deliberate decision of

an employee to leave a job based on specific variables (Park et al., 2016). Additionally, the interaction between interpersonal respect, diversity, mission fulfillment, and engagement may predict turnover intentions of health care practitioners (Collini et al., 2015). The Advisory Board's survey instrument had a control question that asked if the employee was likely to retire, move out of the current region or go back to school in the next three years (see Appendix C). According to The Advisory Board Company, an employee's intent to remain with the organization is an element of employee engagement (ABC, 2017). The response to this question was either a "Yes, Unsure" or "No." The "Yes or Unsure" responses were aggregated and coded as 1 and the No was coded as 0. In binary logistic regression, data are entered in the analysis as 0 or 1 for dichotomous outcomes (Peng et al., 2002).

Reliability. The Advisory Board Company's survey instrument reliability was determined based on a sample of 6,000 nurses and the instrument has since been administered to over one million respondents (ABC, 2017). The survey instrument was supported by comprehensive research and psychometrics, specifically, a Cronbach's α of .98 for a strong measure of internal consistency and reliability (ABC, 2017). Cronbach's α is written as an intraclass correlation coefficient based on a well-known property that taking the average value of several ratings can increase the reliability of a multi-item measurement instrument (de Vet, Mokkink, Mosmuller, & Terwee, 2017).

In the present research study, Cronbach's α coefficient was conducted separately as part of the EFA. Each set of questions related to the explanatory variables, employee engagement, belief in mission and values, and employee support was measured using six-item Likert-scale responses. The corresponding number of questions per variable were coded ordinally. The data elements were entered in SPSS to run a Cronbach's α test.

Data Collection

Secondary data from the subject organization's clinical care management staff in the inpatient and outpatient settings was collected. Majority of the employees of the organization in this study completed the 2018 employee engagement survey. The organization had approximately 17,000 employees primarily located at the health system hub in the western United States. The questionnaire was considered complete when all the required questions have been validated as answered. Permission to reference the survey instrument from The Advisory Board Company's executive editor as the publisher was obtained. Prior to the commencement of this study, a letter of interest was submitted to the subject organization and this researcher received approval to utilize the data from 2018 employee engagement survey. Subsequently, an official representative from the subject organization was assigned to assist as I procured the de-identified data. Additionally, I obtained institutional review board (IRB) approvals from Concordia University–Portland as well as the IRB of the subject organization. The use of secondary data for this research study was feasible, due to the availability of existing information for analysis.

Additionally, there was neither any reference to specific identities of the respondents nor the specific name of the subject organization to preserve anonymity. Numeric identifiers such as 1 for care managers and 2 for social workers were used to signify job roles. To achieve the validity of self-reports, such as survey questionnaires, keeping total anonymity of the respondents has become a common practice to ensure confidentiality of their responses (Goh, Lee, & Salleh, 2010).

An appointed official representative from the organizational development department of the subject organization assigned the unique identifiers to the data based on the inclusion criteria

that the researcher in the present study provided, which included job titles, professional designation (nurse or social worker), entity affiliation, tenure, and position (staff, lead, supervisor, or manager). Therefore, these demographics were extracted based on the respondents' job code and department codes and were included in the descriptive statistics. The file that contained that data was emailed using spreadsheets consisting of raw responses that incorporated the pre-established unique identifiers.

Operationalization of Variables

Operationalization of variables was an important step in this research study to determine how the constructs can be measured. The constructs of employee engagement, belief in mission and values, and employee support were described based on available literature. These descriptions were later used to define the meanings of these predictor variables.

Employee engagement. Employee engagement pertains to a state of affective and motivational levels of dedication to the job or work, vitality, and immersion (Bakker, 2017). Maloney, Boxall, Parsons, and Cheung (2016) revealed higher engagement results in lower intention to leave the organization and the nursing profession. Collini et al. (2015) examined the qualities of interpersonal respect, diversity climate, mission fulfillment, and engagement in predicting intention to leave by staff.

Belief in mission and values. Employee motivation consists of intrinsic factors such as contentment, results of management efforts to increase morale, and job attitudes that lead to job satisfaction (Landis, Vick, & Novo, 2015). Breugh, Ritz, and Alfes (2017) concluded in their study that intrinsic work motivation has the strongest positive relationship with public service motivation (PSM), among others such as rewards, employee feedback, and recognition. The theory of prosocial motivation, which is a form of altruism, also strongly supports that the

opportunities to serve arising from public institutions and organizational mission contribute to job satisfaction (Homberg, McCarthy, & Tabvuma, 2015).

Employee support. Employees who have a degree of trust in their managers may impact performance, specifically when the employees are treated fairly and honestly (Brown et al., 2015). In a study by Fulmer and Ostroff (2017), results showed that employees' trust in organizational leaders are at an all-time low even though there are many associated benefits of employees' trust in their leaders, especially in employee productivity. Brown et al. (2015) added that the degree of autonomy over their work is closely related to the increased general trust.

Employee job satisfaction with the organization represents the positive reaction of employees in their work, based on a composite consisting of relationship with their managers and co-workers, and compensation (Kumar & Pansari, 2015). The inclusion of employee perception about manager effectiveness has been shown in a study to represent organizational support that can serve as a predictor for job satisfaction of home health personnel (Yoon, Probst, & Di Stefano, 2016). Additionally, supervisor–employee relationship, perceptions about approaches to leadership, and job satisfaction are also shown to influence organizational commitment and positive job performance (Babalola, 2016). Feedback and recognition have also been shown to improve motivation and satisfaction when employees perceived support from managers (Frampton et al., 2017).

Intent to stay. Intent to stay requires a deliberate decision of any employee to not leave a job for specific reasons (park et al., 2016). Among health professionals, there is also an established degree of interaction between employee respect for each other, believing in the fulfillment of a mission, diversity of work conditions, and employee engagement that predict intentions to stay (Collini et al., 2015). Intent to stay is a combination of the association of work

engagement, employee support from managers, professional development at work, and a positive work environment (Eltaybani et al., 2018). Further, job satisfaction as a product of specific work variables has been shown as a predictor for nurses' intent to leave or desire to stay (Han et al., 2015).

Data Analysis and Procedures

The detailed discussion of data analysis and procedures encompassed the statistical methods utilized in this present study. Specifically, the rationale and description for the selection of the binary logistic regression analysis was described as well as the exploratory factor analysis (EFA). Finally, the steps taken in utilizing the statistical package for social sciences (SPSS) was also illustrated.

Binary logistic regression. Through a quantitative causal-comparative design, the independent variables, employee engagement, belief in mission and values, and employee support were examined as predictor variables on intent to stay as the dichotomous outcome variable. Binary logistic regression is often used in predictive analytics and modeling where the dependent variable is finite or categorical such as binary regression or a range of finite options also called a multinomial regression (Bewick et al., 2005). Binary logistic regression equation is used to understand the relationship between the dependent variable and one or more independent variables by estimating possibilities that can help predict the likelihood of an event happening or a choice being made (Peng, Lee, & Ingersoll, 2002).

Bewick et al. (2005) further illustrated that (a) logistic regression does not require a linear relationship between the dependent and independent variables, (b) the error terms do not need to be normally distributed, (c) the dependent variable is not measured on an interval or ratio scale, and (d) homoscedasticity is not required. Homoscedasticity is achieved in multiple distribution

when the variance of one variable is the same for all values of the others (Raafat & Tolba, 2015).

Osborne (2015) enumerated that additional assumptions below can lead to significantly biased parameter estimates and errors for failure to meet these assumptions. These assumptions are:

- observations must be independent of each other and must not originate from repeated measurements or matched data
- binary logistic regression requires the dependent variable to be binary and ordinal logistic regression requires the dependent variable to be ordinal
- little or no inappropriately high collinearity between predictors to avoid extremely large standard errors
- independent variables and log odds are linear
- requires a large sample size to detect small deviations from the logistic model

A practical application of using logistic regression as a predictive model is to make a positive difference in organizational approach to predict outcomes and promote actions that improve decision-making (Bowerman & Murphree, 2014).

SPSS is commonly utilized in data analysis to test the hypotheses using maximum data to draw error-free conclusions (Bala, 2016). The responses in the measurement scale were in Likert-item scale format that ranged from strongly agree, agree, tend to agree, tend to disagree, disagree, to strongly disagree. This ordinal scale was assigned individual scores, ranging from 1 for strongly disagree to 6 for strongly agree. Data analysis of this causal-comparative study was processed from the survey responses using a six-item Likert scale, which is a factor-composite scale score to measure three independent variables and one dependent variable. In surveys using Likert scales, individual items are combined using a summation or an arithmetic mean of the responses to specific items (Harpe, 2015). A bivariate study by Landis et al. (2015) revealed that

the variables, intrinsic motivation, perceived autonomy, and burnout are high predictors of job performance, using the UWES-9 employee engagement scales. Bakker (2017) illustrated the use of a scaled score for work engagement to test job crafting and quality of care, utilizing Cronbach's α as the estimate of reliability related to the expected correlation of two variables being tested.

Procedures. The Advisory Board Company's employee engagement survey instrument were clustered into eight categories, namely: employee support, mission and values, professional growth, teamwork, communication input, feedback and recognition, baseline satisfiers, and manager effectiveness. All employees received an electronic link via email to access the survey. As illustrated above, the respondents answered the available choices using a Likert-scale design, namely: strongly disagree, disagree, neutral, agree, and strongly agree. Raw scores using a six-point Likert scale, ranging from 1 as the lowest and 6 as the highest were used for analysis. Every response to the questions under each category was averaged and a composite score for engagement, motivation, and satisfaction was obtained as well as the Cronbach's α for each of the scores. This researcher also solicited consultation from a professional statistician for guidance on the statistical analysis of the data.

Steps. First, SPSS was utilized to test the hypotheses using maximum data to draw error-free conclusions (Bala, 2016). Second, an exploratory factor analysis (EFA) was conducted to determine the factors that loaded to the constructs of the predictor variables in the present study. Third, based on the factor loadings, the validated predictor variables were used to conduct a binary logistic regression analysis. Binary logistic regression is a methodology for modeling the dependence of a binary response variable with one of more quantitative explanatory variables

(Bewick et al., 2005). Fourth, descriptive statistics were used including tenure, work, unit, position, and specific job classifications of the 160 respondents.

Similarly, the responses from the (a) cluster of four statements under the engagement index with a six-point Likert scale, (b) cluster of seven statements under belief in mission and values with a six-point Likert scale, (c) the cluster of six statements that pertain to communication and input and six statements that correspond to employee support with a six-point Likert scale, and (d) the responses from the control question that asked if the employee was likely to retire, move out of the current region or go back to school in the next three years were collected as either “Yes” or “No” and exported into an Excel file based on the results of EFA to ensure that the specific items loaded for further analysis using SPSS. In presenting the assessment and findings of binary logistic regression, Peng, Lee, and Ingersoll (2002) recommended that researchers include pertinent information illustrated by

- overall evaluation of the logistic model;
- statistical tests of individual predictors;
- goodness of fit statistics; and
- assessment of the predicted probabilities.

Overall evaluation of the modeling for the dependence of a binary response variable on one or more predictor variables assesses the adequacy and usefulness of the model (Bewick et al., 2005). Maximum likelihood estimation (MLE) is finding the value(s) of the parameter(s) that give rise to the maximum likelihood (Bewick et al., 2005).

Statistical tests of individual predictors include (a) Wald statistic that tests the significance of individual coefficients in the model, (b) the likelihood ratio (LR) test for a particular parameter that compares the likelihood of obtaining the data when the parameter is

zero (L_0) with the likelihood (L_1), (c) goodness of fit model or calibration of the model measures how well the model describes the response variable or how close values predicted by the model are to the observed values, (d) the Hosmer-Lemeshow test calculates the goodness of fit model for any number of explanatory variables by dividing the observations into groups of approximately equal size that make them groups with only less observed and expected frequencies, (e) R^2 for logistic regression indicate how useful the explanatory variables are in predicting the outcome variable and can be referenced to as measures of effect size (Bewick et al., 2005).

Limitations and Delimitations of Research Design

A limitation of this study was its cross-sectional approach, which only examined the variables based on responses at one time. Williams, Baath, and Phillip (2017) illustrated how a cross-sectional approach may predispose a study to have different results had the survey been conducted over an extended period or multiple periods. The cross-sectional approach has also been shown to lead to questions of potentially variable results if the respondents answered the survey at a different time (Umukuro & Adejuwon, 2017). By the survey methodology, employees completing the survey self-reported their perceptions. As such, the cross-sectional representation may not fully portray the composite of the employees' perceptions compared to a longitudinal study (Umukuro & Adejuwon, 2017). Additionally, the sample size ($n = 160$) combined with a representative one-organization health system may limit the generalizability of the findings. Further, maximum likelihood estimates are less powerful in small sample sizes, especially when conducting regression analysis (Osborne, 2015). Thus, the logistic regression model requires a large sample size to lower the incidence of bias and potential

volatility of the results (Osborne 2015). Finally, the results were intended to be predictive since there was no intention of establishing the cause and effect between the variables.

The study was only limited to the subject organization's recently concluded 2018 employee survey with no comparative data from the prior years. The respondents represented nurses and social workers who function as clinical care managers in the inpatient and outpatient settings. The inclusion criteria consisted of job title, positions, tenure, and entity affiliation were strictly adhered to by ensuring that the correct job codes were extracted. Consideration was given to ensure that the parameters were set in analyzing the findings. Initially, data elements were extracted based only on pre-established parameters in the present research, namely: job title, professional designation (nurse or social worker), entity affiliation (medical center or physician network), tenure, and position (staff, lead, supervisor, or manager). Secondly, only the predetermined survey questions that related to the variables being examined based on the corresponding responses were categorized to ensure that the significance of the relationships was accurately established. Thirdly, precautions were taken to ensure that only the survey instrument was utilized in data analysis and that the questions pertaining to the variables operationalized were used. Finally, there was consistent record keeping of data to illustrate integrity and adherence to the process of the selected research design.

Internal and External Validity

Threats to internal validity included answering (a) whether a treatment can be the cause of a change in the outcome and (b) whether conclusions can be trusted specific to the study rather than being generalized outside of the population (Green, 2010). This secondary data causal-comparative study did not have any random assignment or manipulation of variables. Additionally, the reliability of The Advisory Board Company (2017) survey instrument was

assessed through researched psychometrics, including Cronbach's α score of .98 and over one million respondents through the years (ABC, 2017).

A separate reliability testing was conducted for the present study based on the variables remaining from the EFA. To further strengthen the justification for the cluster of questions used to validate the variables, available literature was utilized by this researcher to support the appropriateness of those questions in answering the relationships of employee engagement, belief in mission and values, employee support, and intent to stay. Further, the inclusion criteria were strictly followed based on the demographics. The control question that asked employees of their intentions to retire, move out of the region or go back to school in the next three years was used to model the binary response to the outcome variable, intent to stay. As such, the limiting effect was the applicability of the findings to the subject organization only since the study was only conducted in one site using cross-sectional data, and with small sample size.

External validity is the ability of the study results to be generalized (Green, 2010). Due to the small sample size of this study ($n = 160$), generalizability may be limited for application to a larger population outside of the organization since the confidence level will be low. Additionally, the nonprobability sampling that was anticipated in this study did not represent an exhaustive list of the population. Nonprobability sampling does not necessarily mean a limitation in validity, but it may mean that the confidence interval cannot be estimated (El-Masri, 2017). Therefore, the results may only be prudently applied within the organization. Finally, similar institutions may be able to glean from the process, results, lessons learned, and recommendations for future research that may be applicable to their respective operations.

Ethical Issues in the Study

Privacy has been an overarching issue in many social science research studies predominantly because of easy accessibility of data (Hunter et al., 2018). A lack of informed consent is also a major concern in research that may harm the subjects if this duty is not carefully discharged (Montoya, 2008). Since consent was not required to be obtained from respondents pertaining to this secondary data research study, privacy of the respondents' identities was preserved by maintaining total anonymity. This requires removal of any information that might lead to the inadvertent disclosure of the exact identity of the respondents. The removal of identifiable information was performed by the authorized representative of the organization.

Additionally, there was no contact with any respondent throughout the course of this research study. In addition, this researcher adhered to the research plan that data pertaining to personal information were not made available to this researcher, codified data were stored, and password protected. Therefore, by using secondary data in this research study, the subject organization's IRB qualified this study as exempt from obtaining consent from the respondents due to its retrospective nature with de-identified data that contained no personally identifying information from the respondents.

Summary

This research study examined whether employee engagement, belief in mission and values, and employee support predict employees' intent to stay in their current positions as clinical care managers in the inpatient and outpatient settings. For this quantitative causal-comparative study, an exploratory factor analysis (EFA) was conducted. EFA is a method that facilitates the generation of hypotheses or theories that provide an explanation of the patterns of

correlations (Haig, 2018). EFA entails grouping these variables into related categories or factors that represent underlying constructs to the data (Oller, 2014).

Binary logistic regression analysis was conducted to validate the predictor variables, employee engagement, belief in mission and values, and employee support as explanatory variables to intent to stay as the outcome variable. A nonprobability sampling data collection approach utilized the established inclusion criteria in the present study. The present research study's main limitation was the small sample size of only 160 completed surveys. The collateral issues associated with small sample size was a consideration in the discussion of findings to promote transparency and to eliminate study bias. Finally, conducting EFA added to the rigor of the study and contributed new knowledge to existing literature.

Chapter 4: Data Analysis and Results

The present research study examined whether employee engagement, belief in the organization's mission and values, and employee support predict intent to stay among clinical care managers in the inpatient and outpatient settings. Previous research studies identified correlates of intent to stay among nurses, physicians, social workers, and other allied healthcare professionals. These findings were illustrated in studies where motivation, employee engagement, trust, mission, belief, support, and leadership were selected as predictor variables on job retention, intent to stay, or turnover intention (Bailey, 2016; Daugherty Biddison et al., 2016; Dill et al., 2016; Lu et al., 2016; Putra et al., 2015; Read & Laschinger, 2015). As such, with the support of research literature, a strong argument was made on examining the predictive qualities of employee engagement, belief in mission and values, and employee support as predictors on intent to stay in their current positions as clinical care managers especially in the unique inpatient and outpatient healthcare delivery settings.

In the present study, this researcher utilized a quantitative causal-comparative research design. Causal-comparative research design is used to examine possible causes for the observed differences among groups when these causes or differences in the groups already exist with two or more variables (Frey, 2018). The intended population from the subject organization's employee engagement survey consisted of approximately 17,000 clinical, nonclinical, and administrative personnel. However, the selected sample of 160 respondents was based on inclusion criteria with clinical care managers as the target population. The inclusion criteria, which consisted of job title, positions, tenure, and entity affiliation were strictly adhered to by ensuring that the correct job codes were extracted and coded for data exportation.

This researcher also collected secondary data from the completed May 2018 annual employee engagement survey by the subject organization. The subject organization, which was a large healthcare system in the western United States utilized the survey instrument developed by The Advisory Board Company (ABC). Use of secondary data is described as extracting existing raw information to test new hypotheses or to answer new research questions (Dunn et al., 2015). Additionally, the collection of secondary data for the present study was only limited to the subject organization's recently concluded 2018 employee survey and no comparative data from the prior years was collected. To obtain a representative sample in this study, a nonprobability sampling was used to accommodate this research study's inclusion criteria for the target population. An authorized representative of the subject organization coded the demographics for inclusion and this researcher received raw numbers to account for the number of nurse and social worker respondents (see Table 1).

Exploratory factor analysis (EFA) was conducted since there was no available published literature on the validity of the survey instrument developed by The Advisory Board Company. The process of EFA identifies factors that account for the specific correlations within a set of observed variables (Buchanan et al., 2014). As such, only the factors that loaded in their specific categories were included. Finally, to test the hypotheses and answer the research questions, a binary logistic regression analysis was utilized, and statistically significant findings were summarized.

The target population for this study consisted of clinical care managers who work collaboratively with physicians, clinical, nonclinical personnel, external partners in care, and other third-party care providers who coordinate the care of patients in the inpatient and outpatient

care settings in a large health system in the Western United States. The health care system was comprised of a medical center and a physician network entity that employ licensed nurses (Registered Nurses and Licensed Vocational Nurses) and clinical social workers who function as clinical care managers in the inpatient and outpatient settings.

Table 1

Demographics

Characteristic	Count	Percentage
Job Category		
Care Manager	86	54%
Social Worker	74	56%
Entity		
Medical Center	110	68.75%
Physician Network	50	31.25%
Tenure (Years)		
< 1 year	11	6.878%
1-3	57	35.62%
4-6	32	20%
7-15	37	23.12%
> 15	23	14.38%
Intent to stay in the next three years		
Yes	27	16.88%
No	97	60.62%
Unsure	36	22.5%

It was initially approximated that 165 respondents were included in the sample. This approximated number was based on the total number of employees with job codes who fall under

the categories in the inclusion criteria. However, the actual sample size was 160 respondents. It must be noted that the variation was the result of utilizing current year or 2019 staffing roster that was presumptively different from the 2018 roster.

Table 1 illustrates the demographics of the population sample for this research study. The number of care managers ($n = 86$) and social workers ($n = 74$) was almost equal, which offered the best opportunity for a representative sample. The total number of respondents from the medical center was disproportionately higher ($n = 110$) representing 69% of the respondents, which was expected since the medical center was larger in size and employee volume than the physician network. The median number of years employed in the organization ranged from four to six years ($n = 32$) representing 20% of the respondents.

Summary of the Results

The analysis of data collected in this research study began with external factor analysis (EFA). An EFA was necessary due to lack of published research on the validity of the survey instrument developed by The Advisory Board Company. EFA identifies smaller factors that were purported to support such bigger constructs (Frey, 2018). As illustrated in Table 2, EFA revealed that six items (Q1, 11, 12, 13, 14, and 15) loaded highly to support factor 1 that represents independent variable, belief in mission and values. In addition, there were five items (Q5, 6, 8, 10, and 16) that loaded highly on factor 2 supporting the predictor variable, employee support. However, six items loaded on both factors that resulted in the removal of the independent variable, employee engagement. As a result, employee engagement as an individual variable was eliminated that made research question one obsolete.

The Advisory Board Company purported through its reliability document (see Appendix B) that the survey instrument has been used by over one million respondents and validated by

psychometrics including Cronbach's α of .98, which is a high score for reliability (ABC, 2017). For this study, internal reliability was conducted separately for mission and values, and employee support as the remaining predictor variables after conducting the EFA. The Cronbach's α score for belief mission and values was .912 and .828 for employee support and both values illustrated high internal reliability and consistency (see Table 2).

One of the distinguishing findings in this research study was the elimination of employee engagement as a predictor variable after the EFA was conducted. As a result, the remaining two hypotheses that belief mission and values, and employee support respectively predict intent to stay among clinical care managers in the inpatient and outpatient settings needed to be tested. A two-predictor binary logistic model was initially selected due to the dichotomous nature of the outcome variable. Entering into the binary logistic regression analysis for this research study, the small sample size and lack of variability in the measures for the dependent variable, intent to stay were potential limitations. Small or sparse data are known to pose problems when applying the binary regression technique (van Smeden et al., 2018). The results of the binary logistic regression failed to reject both null hypotheses that belief in mission and vision and employee support did not predict intent to stay among clinical care managers.

In reviewing results and reflecting on available data, the binary logistic regression results showed a clear relationship between belief in mission and values, and employee support although as predictor variables, they did not have any predictive probability on intent to stay. However, limiting the measure of the outcome variable to one distinct question with a binary response proved to be a critical flaw. Based on the initial results, a post hoc analysis was conducted. As a result, survey item Q4 "I am likely to be working for this organization three years from now" that was eliminated through EFA and which was measured in Likert-scale responses was

combined with the dichotomous dependent variable measure “Are you likely to retire, move out of your current region, or go back to school full time in the next three years?” to provide variability of items to measure the dependent variable, intent to stay. Based on these considerations, it was deemed appropriate to conduct post hoc selection of a more appropriate statistical model using multiple linear regression.

The stepwise linear regression was conducted and predictor variables, belief in mission and values, and employee support in combination accounted for 32.2% of the variability in the dependent variable, intent to stay at each step of entry, which was statistically significant at p -value $< .05$. However, the linear regression results showed that all the assumptions were met except for homoscedasticity. Despite a showing of non-normal distribution of the variables under investigation on a scatterplot, also known as heteroscedasticity, the histogram of unstandardized residuals showed normal distribution based on the kurtosis and tails of the distribution. In order to overcome this question in confidence interval, a bootstrap regression analysis was conducted to provide further validation of results in response to the issue of heteroscedasticity but with normal distribution of the variables. Since SPSS did not permit bootstrap sampling with stepwise regression models, a forced entry method was specified using $n = 1000$ at 95% confidence interval level. The results showed more robust confidence intervals illustrated by an increase in the beta for belief in mission and values, and employee support at 95% confidence interval compared to stepwise coefficients. Additionally, the p -values were also statistically significant at $< .05$ for both belief in mission and values employee support.

The linear regression model validated the predictive probability of belief in mission and values and employee support on intent to stay among clinical care managers in the inpatient and outpatient settings. The post hoc analysis offered insight for future research of potential

predictors of intent to stay of clinical care managers. The limitations in sample size, validity of survey instrument, and variability in the features of measuring the dependent variable warranted careful consideration in future research.

Detailed Analysis

Exploratory factor analysis (EFA) was a major procedure conducted in this present study. The steps and validations were described in detail as well as the emerging themes from factor loadings. The results of the binary logistic regression also created a pathway to conduct additional statistical analysis in search for the most appropriate statistical model.

Exploratory factor analysis. For this research study, an EFA was necessary because there was no published research about the validity of the items in the survey instrument developed by ABC (ABC, 2017). Factor analysis is a process where underlying variables emerge that illustrates a theme in the correlations within a set of observed variables (Buchanan et al., 2014). The basic assumption of factor analysis is that for a collection of observed variables there are factors that are smaller than the observed variables (Haig, 2018). These smaller variables can explain the interrelationships among those variables (Sidanius, 2016). For purposes of data reduction, factor analysis identifies a small number of factors that explain most of the variances observed in a much larger set of variables (Haig, 2018).

Another use of factor analysis is to generate hypotheses regarding causal mechanisms (Sidanius, 2016). Exploratory factor analysis (EFA) follows certain procedures. These procedures must be satisfied to validate the appropriateness of using EFA and to decide on the number of factors to use, including the appropriate extraction method, and a rotation method to ensure that all variables load highly on only one factor (Preacher & MacCallum, 2003).

Kaiser-Meyer-Olkin measure. In conducting exploratory factor analysis (EFA), specific steps needed to be followed. First, the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy was conducted (see Appendix E). KMO is a statistical method that indicates the proportion of variance in the variables that might be caused by underlying factors or factorability (Kim et al., 2016). Acceptable KMO values indicate that factor analysis was appropriate for each domain of the constructs examined (Williams et al., 2014). For this research study, the KMO revealed a value of .912, which validated the necessity of an EFA as illustrated in Appendix D. Typically, high values that are close to 1.0 are generally indicative that factor analysis might be useful or appropriate with the data (Williams et al., 2016).

Bartlett's test of sphericity. Second, the Bartlett's Test of Sphericity investigates the suitability of the correlation matrix to the EFA, which provides the hypothesis that the variables are unrelated and are unsuitable for structure detection (McElligott, 2018). Homogeneity of the variances is important to determine equality across all samples and thus, their factorability (Kim et al., 2016). Small values less than .05 of the significance levels indicate that a factor analysis is useful for the data collected (McElligott, 2018). As shown in Appendix D, analysis of the variables in this study revealed a *p*-value of $< .001$ indicating that use factoring was appropriate.

Factor communalities. Communality is the degree to which a proportion of the variance of a variable or item can be explained by the factors (Sidanius, 2016). As such, the higher the value of communalities, the better the correlation. Initial communalities for correlational analyses are the proportion of variance that is accounted for in each of the variable by the remainder of the variables (Sidanius, 2016). In this research study, the extraction method was the maximum likelihood method. Using maximum likelihood method allowed for testing the significance of factor loadings, calculate correlations among factors, and compute the confidence

intervals for the parameters (de Winter & Dodou, 2011). Every accounted variable represents the variance in the factor solution known as extraction communalities. Higher communalities contribute to the emerging variable with the most attributable variance and small values represent loosely fitting variables in the factor solution that should be considered for removal from the analysis (Frey, 2018). For principal components, this extraction is always equal to 1.0 for correlational analyses. Principal components analysis (PCA) was used to identify and compute composite scores of the factor loadings. The logic is that only factors that explain at least the same amount of variance as a single variable should be retained (Frey, 2018). PCA assumes the correlation of the variables and the absence of outliers while EFA estimates factors which influence responses on observed variables (Frey, 2018). In the present research study, the correlations of the factors needed to be determined. Thus, the EFA was a more appropriate approach. On the other hand, extraction communalities (see Appendix D) are estimates of the variance in each variable accounted for by the factors in the factor solution and should be 0.4 or greater (Frey, 2018). The extracted communalities for the retained variables, belief in mission and values, and employee support are illustrated in Table 2 while the full table of initial and extracted communality scores are illustrated in Appendix D.

Eigenvalues and scree plot. Eigenvalues represent the cumulative variance that is attributed to a given principal component that can either be positive or negative conceptually but is positive for the purpose of explaining the variance (Frey, 2018). Eigenvalues are produced by a process called principal components analysis (PCA), which extracts the variance for each factor represented by numeric scores representing the number of items. In this research study, the first two factors that account for the most variation represented by 9.106 or 53.564% for Factor 1 and 1.522 or 8.955% for Factor 2 and cumulatively accounted for 62.519% of the

variation as illustrated in Appendix F. Eigenvalues were arranged using a scree plot in descending order and the plot below illustrates the number of factors to be retained.

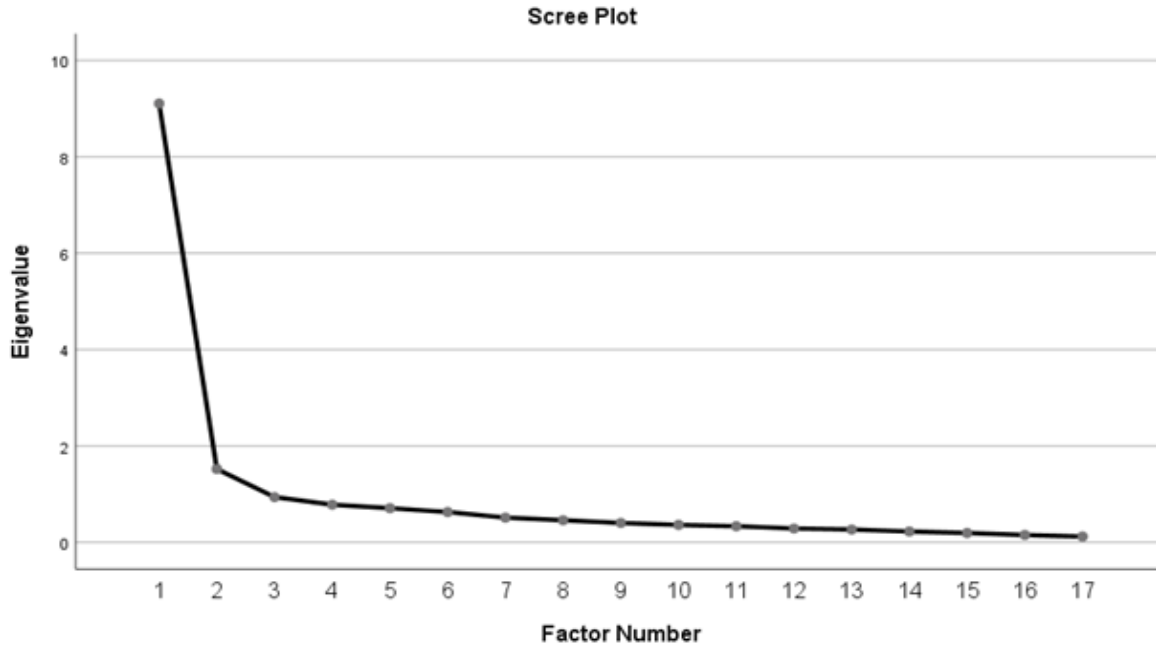


Figure 3. Scree plot.

The scree plot is a means to remove the variables that are least likely to influence the factor loading (Cattell, 1966). As a result, an optimization of the number of factors occurs to achieve factor validity (Cattell, 1966). The scree plot in the present study as illustrated in Figure 3 revealed that from the third factor on, the line becomes straight indicating that Factors 1 and 2 were the underlying factors and the remaining 15 factors represent error variation.

Goodness-of-fit test. Chi-square goodness-of-fit test measures the frequencies with which each of a single discrete variable's categories occurs (Stuart-Hamilton, 2017). The goodness-of-fit index illustrates how well the model or observed value of a given phenomenon is significantly different from the observed value or how the model fits the extracted factor solution (Paoella, 2018). If the calculated value of Chi-squared test is less than the table or p -value which is $> .05$, there is an assumption that there is no significant difference between the observed

and expected value and a value $> .05$ indicates a good-fitting model (Paoletta, 2018). As shown in Table 2, the p -value in this research study was $< .001$. As such, the null hypothesis that the two-factor solution contained evenly distributed data was rejected.

Table 2

Goodness-of-Fit

Goodness-of-fit Test		
Chi-Square	df	Sig.
293.877	103	.000

Maximum likelihood factoring. Maximum likelihood factor analysis (MLFA) is an EFA technique to maximize multivariate likelihood function as well as the function to summarize similarly observed model-implied variances through estimates of optimal factor loadings and measures of unique variances (Preacher & MacCallum, 2003). In this research study, maximum likelihood factor analysis using Varimax with rotation and Kaiser normalization (see Appendix E) illustrated the unrotated factor matrix that was multiplied to obtain the rotated factor matrix. As shown in Table 4, items Q1, 11, 12, 13, 14, and 15 loaded on factor # 1, belief in mission and values. Items Q5, 6, 8, 10, and 16 loaded on factor # 2, employee support. Items Q2, 3, 4, 7, 9, and 17 cross-loaded on factors # 1 and # 2.

The factor plot in the rotated factor space as illustrated in Appendix F, illustrates all the factors in the rotated factor space. The survey items that were used to measure the construct of employee engagement were deemed not valid due to cross-loadings in both belief in mission and values, and employee support. As such, employee engagement as a predictor variable was eliminated. Therefore, further analysis using binomial logistic regression proceeded with two predictor variables, belief in mission and values, and employee support.

Table 3

Exploratory Factor Analysis Table

Derived Variables	Observed Variables	Factor Loadings	Extracted Communalities	Percent Variance	Reliability Coefficients
Mission and Values	Q1	.753	.673	53.56	.912
	Q11	.773	.709		
	Q12	.739	.632		
	Q13	.655	.509		
	Q14	.735	.600		
	Q15	.790	.680		
Employee Support	Q5	.627	.421	8.96	.828
	Q6	.715	.568		
	Q8	.782	.734		
	Q10	.589	.377		
	Q16	.497	.369		

Internal reliability. The validity of the survey instrument created by The Advisory Board Company. The survey has been used by over one million respondents for many years and it includes validation through psychometrics, including Cronbach's α score of .98 (ABC, 2017). Cronbach's α is written as an intraclass correlation coefficient based on a well-known property that taking the average value of several ratings can increase the reliability of a multi-item measurement instrument (de Vet et al., 2017).

In this present study, internal reliability testing was conducted for the two remaining independent variables, belief in mission and values, and employee support while employee engagement was eliminated. As shown in Table 3, the Cronbach's α score for belief in mission and values was .912 and the score for employee support was .828. Both scores showed high internal reliability.

Table 4

Factor Matrix

Question	Construct	
	1	2
	MV	ES
Q1 ^a I am willing to put a great deal of effort in order to help this organization succeed.	EE	MV
Q2 ^c This organization inspires me to perform my best.	MV	ES
Q3 ^c I would recommend this organization to my friends as a great place to work.	EE	MV ES
Q4 ^c I am likely to be working for this organization three years from now.	EE	MV ES
Q5 ^b I have a manageable workload.	ES	ES
Q6 ^b My manager helps me balance my job and personal life.	ES	ES
Q7 ^c My organization does a good job of selecting and implementing new technologies to support my work.	ES	MV ES
Q8 ^b My organization helps me deal with stress and burnout.	ES	ES
Q9 ^c My organization supplies me with the equipment I need.	ES	MV ES
Q10 ^b My unit/department has enough staff.	ES	
Q11 ^a I believe in my organization's mission.	MV	MV
Q12 ^a I understand how my daily work contributes to the organization's mission.	MV	MV
Q13 ^a My organization gives back to the community.	MV	MV
Q14 ^a My organization provides excellent care to patients.	MV	MV
Q15 ^a My organization provides excellent customer service to patients.	MV	
Q16 ^b Over the past year, I have never been asked to do something that compromises my values.	MV	ES
Q17 ^c The actions of executives in my organization reflect our mission and values	MV	ES

Note. MV-Mission and Values. ES-Employee Support. ^aItems loaded on Factor 1 (Mission & Values). ^bItems loaded on Factor 2 (Employee Support). ^cItems loaded on both factors and excluded.

Summary of exploratory factor analysis. Utilizing the EFA illustrates whether the independent variables are strongly influenced by a set of common factors (Frey, 2018). The EFA was appropriately utilized in the present study to test whether the predictor variables, employee engagement, belief in mission and values, and employee support were adequately represented by factors that were designed to support such constructs. The EFA showed that the factors with the highest factor loadings were Q 15 = .790 under mission and values and Q 8 = .782 under employee support. There were six items (Q 1, 11, 12, 13, 14, and 15) that loaded highly to support factor 1, belief in mission and values. Additionally, five items (Q 5, 6, 8, 10, and 16) loaded highly on factor 2, employee support. There were six items (Q 2, 3, 4, 7, 9, and 17) that loaded on both factors resulting in the removal of the predictor variable, employee engagement and the elimination of research question 1 that pertains to this variable.

Binary logistic regression. Binary logistic regression was employed to determine if belief in mission and values, and employee support could predict intent to stay among clinical care managers in the inpatient and outpatient settings. Logistic regression is often used in predictive analytics and modeling where the dependent variable is finite or categorical such as binary regression or a range of finite options also called a multinomial regression (Bewick et al., 2005). The researcher in the present study utilized binary logistic regression to understand how changes in the predictor variables, belief in mission and values, and employee support were related to the changes in the probability of an outcome occurring, which was intent to stay. Additionally, the use of a binary response to measure the outcome variable, intent to stay with a “Yes/Unsure” or “No” response was a required element in binary logistic regression. Binary logistic regression equation is important when examining the relationship between the dependent

variable and one or more independent variables by estimating possibilities that can help predict the likelihood of an event happening or a choice being made (Peng, Lee, & Ingersoll, 2002).

Table 5

Dependent Variable Encoding

Original Value	Internal Value
No	0
Yes/Unsure	1

In this study, a two-predictor logistic model was fitted into the data to test the hypotheses. Logit analysis was employed since all the predictors, belief in mission and values, and employee support were categorical instead of continuous with no assumptions regarding the distributions of the predictor variables. The predicted dependent variable was a function of the probability that a respondent will choose either “Yes/Unsure” or “No” for intending to retire, move out of state or go back to school in the next three years. The original value “Yes/Unsure” was combined and

Table 6

Case Processing Summary

Unweighted Cases		N	Percentage
Selected Cases	Included in Analysis	159	99.4
	Missing Cases	1	.6
	Total	160	100
Unselected Cases		0	

The purpose of beginning block classification is to contrast with after block classification table to determine the predictive efficiency of the model and an improvement over this baseline

is examined by three inferential statistics: the likelihood ratio, score, and Wald tests (Peng et al., 2002). As illustrated in Table 7 classification table, the largest outcome category was “no” ($n = 96$) or those respondents who have no intentions of retiring, moving out or returning to school in the next three years and $n = 63$ for those who were. This number represents one of the base rates of the two decision points and represents 60.4% ($96/159$) indicating intention to stay and the observed odds of 63/96. The maximum likelihood estimation is applied in logistic regression after the dependent variable is transformed into a logit variable, which is the natural log of the odds of the outcome occurring or not as an estimation of probability (White, 2012). Thus, with no additional information, the strategy for every case was that predicting intent to stay would be correct 60.4% of the time.

Table 7

Classification Table

			Predicted ^{a,b}		
			Outcome2		Percentage Correct
Observed			No	Yes/Unsure	
Step 0	Outcome2	No	96	0	100.0
		Yes/Unsure	63	0	.0
Overall Percentage					60.4

Note. ^aConstant is included in the model. ^bThe cut value is .500.

Variables in equation. The variables in equation represent the intercept-only model, which in (odds) = -.421. In a logistic model, odds ratios are normally taken from the regression

coefficient (Peng et al., 2002). Odds ratios that are greater than 1 suggest that event is more likely to occur as the predictor increases. Conversely, odds ratios less than 1 indicate that the event is less likely to occur as the predictor increases. Both sides of the expression were exponentiated and showed predicted odds of intending to stay was $[\text{Exp}(\beta)] = .656$. The likelihood ratio test assists in choosing the best model that maximizes data between two nested models with one model having more variables that include the variables contained in the nest (Peng et al., 2002).

The Wald statistic is the omnibus test of statistical significance in logistic regression and it is calculated as the squared ratio of the logistic regression to the standard error $(\beta k/S.E.)^2$ to find out if the explanatory variables in the model are significant (White, 2012). If β represents the regression coefficient then exponentiating β produces the odds ratio. The results shown in Table 8 illustrates whether the respondents intended to retire, move out of the region or go back to school in the next three years. The odds ratio showed that for every unit of increase in the respondents the likelihood of respondents with intent to stay in their current position or within the organization was .656.

Table 8

Variables in Equation

	β	SE	Wald	df	Sig.	$\text{Exp}(\beta)$
Step 0 Constant	-.421	.162	6.749	1	.009	.656

Since 63 of the respondents chose “No,” the observed odds of predicting intent to stay were 63/96 for each one unit of change in the predictor variable. However, the variables not in the equation as shown in Table 9 illustrates the adding the predictors to the model did not

significantly increase the ability to predict intent to stay. Therefore, the hypothesized predictor variables, belief in mission and values, and employee support were not statistically significant.

Table 9

Variables not in the Equation

		Score	df	Sig.
Step 0 Variables	Mission & Values	3.094	1	.079
	Employee Support	.119	1	.730
Overall Statistics		3.845	2	.146

Table 10

Correlations

Mission & Values	Pearson Correlation	1	** .593
	Sig. (2-tailed)		.000
	N		160
Employee Support	Pearson Correlation	1	.593
	Sig. (2-tailed)		.000
	N		159

Note. **Correlation is significant at the 0.01 level (2-tailed)

No multicollinearity of the independent variables. One of the assumptions in logistic regression is that there must not be collinearity between the independent variables (Peng et al. 2002). Multicollinearity is a phenomenon in which one predictor variable can be highly

correlated with other predictor variables other than the dependent variable making it a challenge to distinguish the effects of an independent variable on the dependent variable (White, 2012).

In the present study, the correlation matrix of the independent variables as illustrated in Table 10 shows that the strength of association between the predictor variables, belief in mission and values, and employee support was indicative of a statistically significant linear correlations with a p -value of .000. When this occurrence is shown, the linear predictor variables are removed from the model and the log odds ratio that estimates probability of an event occurring.

Summary of binary logistic regression analysis. The result of the binary logistic regression conducted showed that the predictor variables, belief in mission and values, and employee support possessed multicollinearity. Although logistic regression is a common approach in developing prediction models, it is also known to possess problems when applying the technique with small or sparse data (van Smeden et al., 2018). As such, the small sample size and the lack of multiple measures for the dependent variable were the limiting factors in the outcomes. Additionally, the independent variables did not offer any predictive capability and as a result, the removal of the only two remaining predictive variables did not allow for testing the linearity of the independent variables with the log odds ratio with the presence of only the constant. Therefore, the logistic regression analysis could not proceed. As a result, this researcher failed to reach a conclusion to reject both null hypotheses that belief in mission and values, and employee support does not predict intent to stay among clinical care managers in the inpatient and outpatient settings. However, when reviewing and reflecting on the results, it was noted that there was another survey item that was not used originally but could have possibly provided additional variance to the dependent variable. Thus, a post hoc linear regression model was then conducted using those two measures contained in the original survey discussed below.

Multiple linear regression analysis. In this study, a post hoc multiple linear regression analysis was conducted based on the results of the binary logistic regression. In multiple linear regression, the relationship between an outcome variable and one or more predictors is examined (Muijs, 2011). For the present study, the results of the two-predictor binary regression did not show predictive qualities of belief in mission and values, and employee support on intent to stay among clinical care managers in their current positions in the inpatient and outpatient settings.

The limitations including small sample size, lack of multiple measures to describe the dependent variable, and the lack of construct validity of some of the items in the survey contributed to the non-significant results. The results of the incomplete binary logistic regression were further analyzed post hoc to assess the selection of a more appropriate statistical model that led to conducting a multiple linear regression. Post hoc analysis is normally done when the study results do not show what was originally anticipated in the research plan that can subject the results to question (Curran-Everett & Milgrom, 2013).

For the present research study, the sole purpose of conducting a post hoc analysis was to maximize available data for this population. In addition, in using the appropriate statistical analysis, the findings may provide direction for future research in the predictive variables for intent to stay specific to the special population of clinical care managers. Therefore, this researcher followed specific procedures that addressed the limitations observed from the results of executing the initial research plan.

Modified measure of dependent variable. The findings from the logistic regression showed that limiting the measure of the outcome variable to one distinct question with a binary response was limiting. In proceeding with the linear regression analysis, two similar questions

Table 11

Modified Measures for Intent to Stay

Item	Question	Value
Q4	I am likely to be working for this organization three years from now	1-6
DV	I am likely to move, retire or go back to school in the next three years	Yes/Unsure No
		1 0

from the survey instrument were used as illustrated in Table 11. In linear regression, variability of items to measure the dependent variable is important to illustrate the extent to which the values differ from the mean (Kader, 2007). The responses for the item represented by Q4 utilized Likert-scale ordinal responses. The dichotomous outcome variable was labeled DV and coded as 1 for “Yes” and 0 for “No.” The ordinal scale responses for Q4 were coded 1 for strongly disagree, 2 for disagree, 3 for tend to disagree, 4 for tend to agree, 5 for agree, and 6 for strongly agree. The mean scores of Q4 were calculated and added with the mean score of DV to complete the sum.

Multiple linear regression results. A post hoc multiple linear regression analysis was conducted. The purpose was to test if the belief in mission and values, and employee support predict the intent of stay among clinical care managers in the inpatient and outpatient settings. In order for data to be analyzed using multiple linear regression certain assumptions must be met that include (a) linear relationship, (b) multivariate normality, (c) little to no multicollinearity, (d) no autocorrelation, and (e) homoscedasticity (Berger, 2018).

Linearity of variables. Linearity of the variables means that the effects of the different independent variables are additive on the expected values of the dependent variable (Faul, 2009). There is an assumption in linear regression that may be represented by scatterplots to visually inspect the scatterplot for linearity (Berger, 2018). The scatterplot that showed no pattern in the residual plot indicating linearity between predictors and outcome variables (see Figure 4).

Multivariate normality. The overall test of significance was conducted using analysis of variance or ANOVA to determine whether the results of the testing were significant. ANOVA validated both null hypotheses that the independent variables, belief in mission and values, and employee support did not predict intent to stay can be rejected. As illustrated in Table 12, the *p*-values at step 1 and step 2 were both < .05, indicating that the regression model statistically

Table 12

ANOVA

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.934	1	96.934	57.135	.000 ^b
	Residual	266.361	157	1.697		
	Total	363.296	158			
2	Regression	116.804	2	58.402	36.961	.000 ^c
	Residual	246.492	156	1.580		
	Total	363.296	158			

Note. ^a Dependent Variable: Sum of Q4 & DV, ^b Predictors: (Constant), Mission & Values, ^c Predictors: (Constant), Mission & Values, Employee Support

predicted the outcome variable and the model was a good fit for the data. Therefore, the null hypotheses that belief in mission and values, and employee support respectively did not predict intent to stay were rejected since the two predictor variables added significantly more variance in predicting intent to stay than by chance.

Independence of observations or no autocorrelation of residual variables. This assumption indicates that autocorrelation occurs when the residuals are not independent of each other (Fay, 2010). To test the assumption of independence of observations, the Durbin-Watson statistic was conducted (see Table 13). The Durbin-Watson statistic produced a value of 2.073, which indicates little to no autocorrelation in the data. A Durbin-Watson value of 2 shows little to no autocorrelation in the data in the regression model (Draper & Smith, 1998).

Table 13

Durbin-Watson

Model Summary ^c	
Model	Durbin-Watson
1	
2	2.073

Note. ^a. Predictors: (Constant), Mission & Values, ^b. Predictors: (Constant), Mission & Values, Employee Support, ^c. Dependent Variable: Sum of Q4 & DV

Minimal to no multicollinearity. Multicollinearity is identified when the correlation is significantly high between two or more predictor variables since the predictor variables should be independent that can cause problems when fitting results with the regression model (Wheeler, 2016). The coefficients table illustrated in Table 14 below shows that the data met the assumption of no multicollinearity. For model 1, belief in mission and values Tolerance was 1.0 and for model 2, Tolerance for belief in mission and values, and employee support was .648.

Table 14

Coefficients Table

Model	Coefficients ^a	Collinearity Statistics (VIF)
1	(Constant)	
	Mission & Values	1.000
2	(Constant)	
	Mission & Values	1.543
	Employee Support	1.543

Note. ^aDependent Variable: Sum of Q4 & DV

A Tolerance value of < 0.1 provides an assumption of multicollinearity (Wheeler, 2016). Additionally, the variance inflation factor (VIF) of the linear regression is defined as $VIF = 1/T$ and a result closer to 1 indicates that there is no multicollinearity (Wheeler, 2016). As noted in the Table 14, the VIF for Model 1 belief in mission and values = 1.000 and the VIF for Model 2 belief in mission and values, and employee support was 1.543. Therefore, results indicate that multicollinearity was not a concern.

Homoscedasticity. Another critical assumption in linear regression is homoscedasticity, which is the degree of similarity in the variances of two or more variables (Fay, 2010). This assumption is violated when several variables under examination are not normally distributed (Fay, 2010). Figure 4 illustrates a scatterplot that demonstrates a violation of the assumption of homoscedasticity. The scatterplot or residual plot did not show a constant spread among the residuals across all values of X, which did not illustrate a pattern of homoscedasticity.

As such, the pattern of residual values that increased as the values of X increased illustrate heteroscedasticity. Therefore, to overcome biased results, it was important to rerun the model to check against confidence intervals using bootstrap regression to achieve more robust estimates.

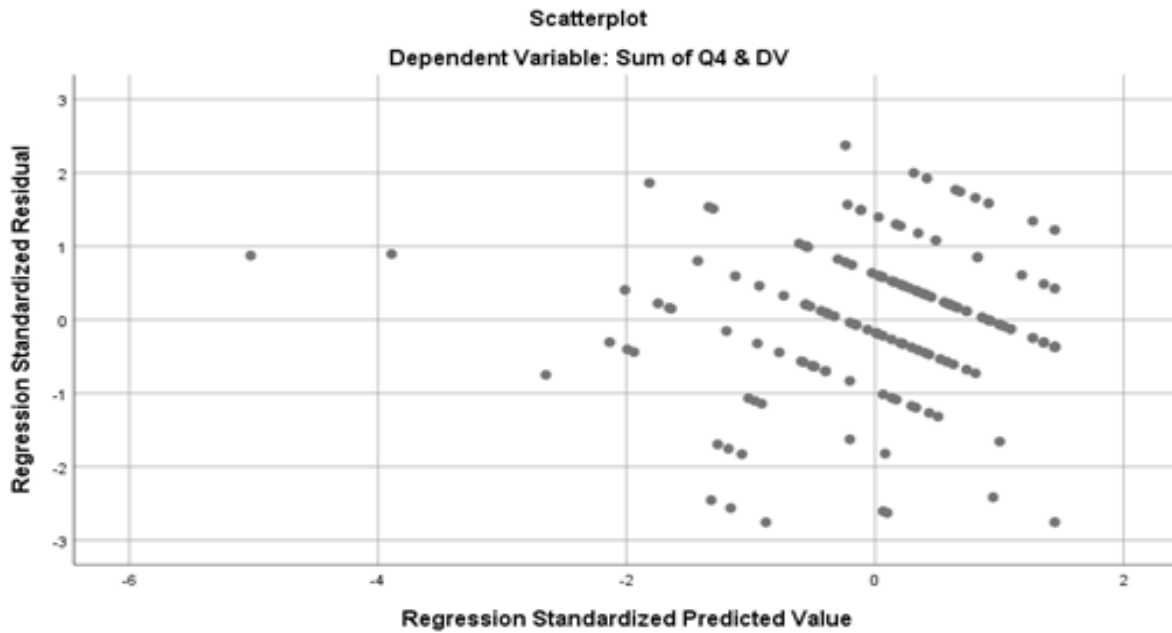


Figure 4. Scatterplot that illustrates distribution of predicted value and standardized residual.

Table 15

Residuals Statistics

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.9011	6.4639	5.2201	.85980	159
Residual	-3.46500	2.98472	.00000	1.24903	159
Std. Predicted Value	-5.023	1.447	.000	1.000	159
Std. Residual	-2.757	2.374	.000	.994	159

Note. ^a. Dependent Variable: Sum of Q4 & DV

Normality of residuals. Residuals in regression analysis are supposed to show that they are independent of each other (Fay, 2010). Figure 5 illustrates a histogram, which shows the unstandardized residual errors were approximately normally distributed. The present study showed the residuals represent the difference between what regression models predict (mean = 5.2201) and what the data showed (mean = .000) as illustrated in Table 15. The mean scores represent normal distribution of the kurtosis and tails (Std. Dev. = 1.24903).

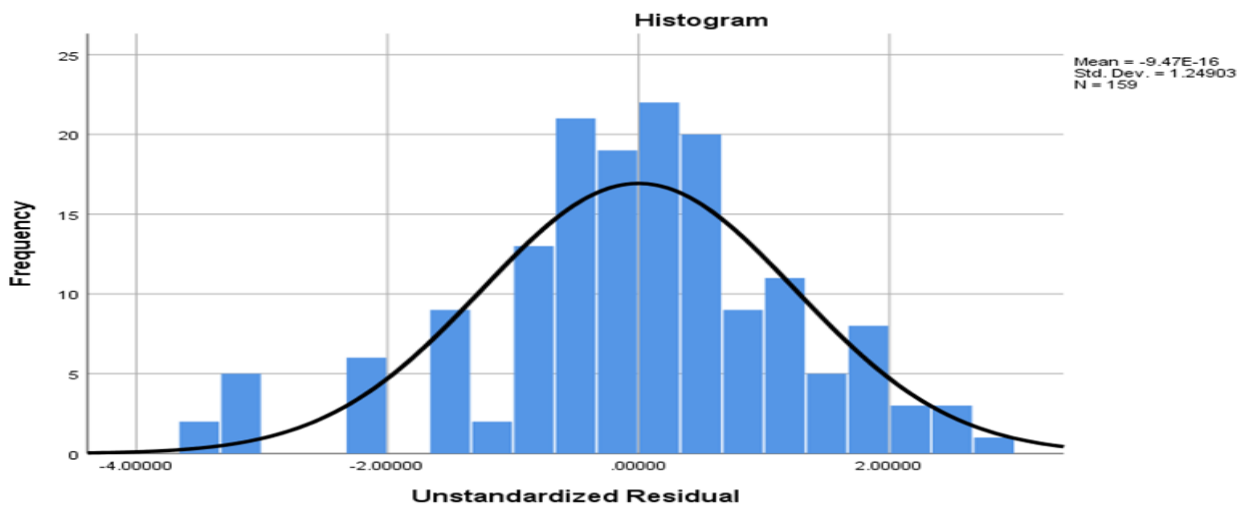


Figure 5. Histogram of unstandardized residuals.

Stepwise linear regression analysis and results. A stepwise regression method was used in order to select the best multiple regression model so that the weakest correlated variables are removed, and the only variables left are those that explain the distribution best, which depends on their association with the outcome (Berger, 2018). As illustrated in the model summary table (Table 16), at step 1 of the analysis using Stepwise logistic regression, belief in mission and values were entered in the regression equation and results were significantly related to intent to stay $F(1, 157) = 57.135, p < .05$. The adjusted R^2 produced a .262 variability

Table 16

Model Summary

Model Summary ^c									
Model	R	R ²	Adjusted R ²	Std. Error of The Estimate	R ² Change	F	df1	df2	Sig. F
1	.517 ^a	.267	.262	1.30252	.267	57.135	1	157	.000
2	.567 ^b	.322	.313	1.25701	.055	12.575	1	156	.001

Note. ^aPredictors: (Constant), Mission & Values, ^b Predictors: (Constant), Mission & Values, Employee Support, ^c Dependent Variable: Sum of Q4 and DV

for belief in mission and values. This indicates that as predictor variables in this study, both belief in mission and values explained 26% of the variance in the dependent variable, intent to stay.

Similarly, for step 2 of the Stepwise logistic regression, belief in mission and values, and employee support were entered in the equation. The results showed that the predictors were significantly related to intent to stay $F(2, 156) = 58.402, p < .05$. The R^2 produced a .313 variability and this value accounted for 31% of the variance of the clinical care managers' intent to stay by the predictor variables, belief in mission and values, and employee support, which was statistically significant.

Table 17 provides the linear regression equation ($Y = a + bx$) for model 1 and 2. The results revealed that at 95% confidence interval, the β for belief in mission and values was .731 between the range of .387 and 1.075. Similarly, the β for employee support was .382 between the range of .169 and .594. However, to remedy potential confidence interval issues brought

about by a showing of heteroscedasticity with normal distribution on histogram, a bootstrap regression analysis was conducted to find the most robust regression equation.

Table 17

Stepwise Coefficients Table

Model	Coefficients ^a							
	Unstandardized Coefficients		Standardized Coefficients		Sig.	95% Confidence Interval for B		Collinearity Statistics
	β	Std. Error	Beta	t		Lower Bound	Upper Bound	Tolerance
1 (Constant)	-.614	.779		-.788	.432	-2.152	.924	
Mission & Values	1.097	.145	.517	7.559	.000	.810	1.384	1.000
2 (Constant)	-.211	.760		-.278	.781	-1.713	1.290	
Mission & Values	.731	.174	.344	4.202	.000	.387	1.075	.648
Employee Support	.382	.108	.290	3.546	.001	.169	.594	.648

Note. ^aPredictors: (Constant), Mission & Values, ^b Predictors: (Constant), Mission & Values, Employee Support, ^c Dependent Variable: Sum of Q4 and DV

Bootstrap regression analysis and results. The bootstrap is an alternative approach for computing standard errors, confidence intervals, and tests based on intensive computation when either the assumptions required for standard methods are in question (Weisberg, 2014). In this study, the assumption of homoscedasticity was not shown. However, the resulting histogram of residuals showed normal distribution. As such, further guidance regarding the heteroscedasticity of data was needed through bootstrapping.

In bootstrapping, the data is re-run to make the confidence interval more robust based on 1000 permutations to recreate the regression model (Weisberg, 2014). Since SPSS does not permit bootstrap sampling with stepwise regression models, a forced entry method was specified using $n = 1000$ at 95% confidence interval level. Table 18 shows both employee support and belief in mission and values were entered as variables and showed $R^2 = .322$ as the amount of variability in the dependent variable that was accounted for by both predictor variables.

Table 18

Bootstrap Model Summary

Model Summary ^a				
Model	<i>R</i>	<i>R</i> ²	<i>Adjusted R</i> ²	Std. Error of The Estimate
1	.567	.322	.313	1.25701

Note. ^aPredictors: (Constant), Mission & Values, ^b Predictors: (Constant), Mission & Values, Employee Support, ^c Dependent Variable: Sum of Q4 and DV

Table 19

ANOVA Table and Coefficients

ANOVA ^a						
Model		Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	116.804	2	58.402	36.961	.000 ^b
	Residual	246.492	156	1.580		
	Total	363.296	158			

Note. ^aDependent Variable: Sum of Q4 and DV. ^b Predictors: (Constant), Mission & Values, Employee Support

The ANOVA table (see Table 19) indicates that both independent variables were significant predictors at significant level $p < .05$. The linear regression equation was identical in Model 2 using the stepwise approach. The bootstrap results were similar indicating that for every 1 unit of change, there was a .731 increase in intent to stay using belief in mission and values as predictor with a significance level of $< .05$ and a .382 increase in intent to stay using employee support as predictor with a significance level of $< .05$ (see Table 20).

Table 20

Coefficients Table

Model	Coefficients ^a				
	Unstandardized		Standardized		Sig.
	Coefficients	Std. Error	Beta	t	
1 (Constant)	-.614	.779		-.278	.781
Mission & Values	.731	.174	.344	4.202	.000
Employee Support	.382	.108	.290	3.546	.001

Note. ^aDependent Variable: Sum of Q4 and DV. ^b Predictors: (Constant), Mission & Values, Employee Support

The bootstrap method using the same linear regression equation produced a new and more robust confidence intervals from the bootstrap sampling. Table 21 shows that at 95% confidence interval, beta for belief in mission and values was .731, which was between the range of .318 and 1.202 compared to previous range of .387 and 1.075. Beta for employee support was .382, which was between the range of .135 and .615. This more robust compared to previous range of .169 and .594. The p -values were statistically significant for belief in mission and values, and employee support respectively at $< .05$.

Table 21

Bootstrap for Coefficients

Bootstrap for Coefficients						
Model	β	Bias	Std. Error	Sig. (2-tailed)	BCa 95% Confidence Interval	
					Lower	Upper
1 (Constant)	-2.11	-.080	.822	.781	-2.073	1.178
Mission & Values	.731	.020	.205	.002	.318	1.202
Employee Support	.382	-.005	.130	.010	.135	.615

Note^aUnless otherwise noted, bootstrap results are based on 1000 bootstrap samples

Table 22

Bootstrap for Coefficients-Stepwise

Stepwise Coefficients ^a									
Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	95% Confidence Interval for B		Collinearity Statistics	
	β	Std. Error	Beta	t		Lower Bound	Upper Bound	Tolerance	
1 (Constant)	-.211	.760		-.278	.781	-1.713	1.290		
Mission & Values	.731	.174	.344	4.202	.000	.387	1.075		.648
Employee Support	.382	.108	.290	3.546	.001	.169	.594		.648

Note. ^aDependent Variable: Sum of Q4 & DV

The linear regression model showed statistically significant results in validating the predictive nature of belief in mission and values, and employee support on intent to stay among

clinical care managers in the inpatient and outpatient settings. As a result, this post hoc analysis may provide insight for future research when employing variables to predict intent to stay among clinical care managers in the inpatient and outpatient settings. This is especially true when considering the limitations discovered in this research study using binary logistic regression such as sample size and lack of variability of the dichotomous responses to measure the dependent variable.

Summary

The statistical analyses utilized in this study produced expected and unexpected results. The lack of published validity of survey instrument used in this study required conducting a procedurally sound validation approach. The explanatory factor analysis (EFA) showed that out of the 17 items that were designed to correspond to the constructs of employee engagement, belief in mission and values, and employee support, six items cross-loaded into both belief in mission and values, and employee support. This resulted in the elimination of three out of four items for employee engagement. As such, with only one factor remaining, employee engagement was removed as a predictor variable.

Another challenge was the inability of the binary logistic regression analysis to show any predictive probability for belief in mission and values on intent to stay. The lack of variability of the dichotomous outcome variable proved to be a limitation. However, a significant finding in the correlation of both predictor variables and after careful review, Q4 from the survey instrument was utilized. The combined original binary question and the ordinal scale of Q4 created a more meaningful composite for the outcome responses to measure intent to stay.

Finally, the multiple linear regression model stepwise approach showed that mission and values, and employee support explain 32.2% of the variance in the dependent variable, intent to

stay. The question of heteroscedasticity but with normally distributed data on histogram was addressed using bootstrap regression to address issues related to confidence intervals. The corresponding results illustrated a new and more robust confidence intervals from the bootstrap sampling with statistically significant p -values $< .05$ for both belief in mission and values, and employee support. Therefore, this researcher rejected the null hypotheses that belief in mission and values, and employee support respectively did not predict intent to stay among clinical care managers.

Chapter 5: Discussion and Conclusion

The purpose of the final chapter of this dissertation is to discuss the summary and results of the study. The study's causal-comparative design allowed for the examination of predictive probability of the independent variables, employee engagement, belief in mission and values, and employee support on intent to stay of clinical care managers in their positions in the inpatient and outpatient care settings. The challenging cost of healthcare continues to increase, and many private and government payers have required healthcare delivery organizations to decrease healthcare utilization while maintaining quality of care (Skillman et al., 2017). A vast majority of healthcare expenditure is in human resources to sustain organizational operations and deliver patient care (Shantz et al., 2015). This has placed pressures on enterprise leaders to sustain its workforce in order to retain staff through professional development and retention programs that add value and innovation (Shantz et al., 2015). As an example, hospital expenditures directly related to staff turnover may be double or triple a nurse's annual salary, which includes recruitment costs, job orientation, and employee benefits (Reina et al., 2018).

In the present research study, the focus was on a unique population of healthcare providers who work as clinical care managers. These clinical care managers were composed of nurses and social workers who provided coordination of care and care management of patients in the inpatient and outpatient care settings. Thus, this section synthesized empirical findings to answer the study's three research questions:

RQ 1. Does employee engagement predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

RQ 2. Does an employee's belief in the organization's mission and values predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

RQ 3. Does employee support predict intent to stay among clinical care managers in the inpatient and outpatient care settings?

The emerging themes related to the previously identified predictors paved the way for the selection of a conceptual model. The researcher adapted a conceptual model by Boyle et al. (1999) to guide in answering the research questions for this study and the adapted conceptual model was used as the lens in research planning. Boyle's model of intent to stay was grounded heavily in literature asserting that critical nurses' intent to stay at their jobs is related to four characteristic variables, which are manager characteristics, organizational characteristics, nurse characteristics, and work characteristics (Boyle et al., 1999). Each characteristic is represented by factors as descriptors. The adapted conceptual model of intent to stay of clinical care managers utilized job stress as the model for employee support, job satisfaction as the model for employee engagement, and commitment as the model for belief in mission and values. This chapter synthesizes the process, execution of the research plan, research analysis and methodology, research findings, and answers to the research hypotheses. Discussions about the initial exploratory factor analysis (EFA), the binomial logistic regression, and the decision to conduct post hoc analysis using multiple linear regression are included.

Summary of the Results

In the present study, the analysis began with EFA, which was used as part of the validation process for the selected constructs included in the survey instrument. The results of the EFA showed that out of the 17 items, which were designed to correspond to the constructs of employee engagement, belief in mission and values, and employee support, six items cross-loaded into both belief in mission and values, and employee support. These meaningful findings on the lack of validity of the factors in measuring constructs on employee engagement led to the

elimination of employee engagement as a predictor variable and retention of the two other remaining predictor variables, belief in mission and values, and employee support. The subsequent results of the binary logistic regression showed no statistical significance ($p > .05$) in the predictive qualities of belief in mission and values, and employee support on intent to stay. However, the results also showed evidence of a strong correlation between belief in mission and values, and employee support as independent variables with p -values of $< .001$ respectively, which led to the elimination of these two remaining independent variables. As such, in order to maximize available data, a post hoc analysis utilizing a more feasible regression model was conducted.

Considering the correlation of the two predictor variables, the post hoc analysis proceeded, and a multiple linear regression analysis was conducted. The first step was to provide variability on how the dependent variable, intent to stay was measured. This was accomplished by combining the original binary response of the outcome variable (Yes/Unsure and No) with the results of a categorical survey item question (Q4 was previously excluded from the EFA) with Likert-scale responses from 1–6 and mean scores were calculated that added variability in measuring the dependent variable, intent to stay. The post hoc results showed belief in mission and values, and employee support in combination accounted for 32.2% of the variability based on the R^2 change at each step of the entry in the Stepwise linear regression model. The 32.2% variability in the dependent variable was evidence of variability that were accounted for by the predictor variables. With the elimination of employee engagement as a predictor variable, the results were consistent with the two remaining hypotheses related to belief in mission and values, and employee support. The findings were discussed in detail in the following sections.

Discussion of the Results

The present research study validated the initial concerns that the researcher illustrated during the initial research planning. These concerns were related to the validity of the constructs to support employee engagement, belief in mission and values, and employee support.

Therefore, the results of factor analysis led to the modification of the research plans as illustrated in the post hoc analysis.

Does employee engagement predict intent to stay among clinical care managers in the inpatient and outpatient care settings? Employee engagement is the sum of intrinsic and extrinsic factors in the form of workplace trust, job control satisfaction, as well as a sense of meaning, feeling of safety, and readiness to continue performing a duty (Okello & Gilson, 2015; Kahn, 1990). In this study, the Kaiser-Meyer-Olkin's (KMO) instrument revealed a score of .912 that led to the determination of the appropriateness of proceeding with the EFA due to the lack of available published literature on the validity of the survey instrument. KMO values closer to 1 are indicative of the appropriateness of the EFA (Kim et al., 2016). Additionally, the Bartlett's Test of Sphericity revealed a p -value of $< .001$. Bartlett's test was critical in determining the homogeneity and thus, the factorability of the variables to account for each construct being measured, and p -values of $< .05$ were indicative that factor analysis was useful for the data collected (McElligott, 2018). A test of communality of the variance of the variables was also needed to determine the significance of their correlations such that the higher the value of the communalities, the better the correlations (Sidanius, 2016). The communalities are normally determined by using the maximum likelihood method to test significance of factor loadings, calculating correlations among factors, and computing for confidence intervals for the parameters (deWinter & Dodou, 2011). In this study, the extracted communalities for the

retained variables revealed a value of 53.56% for belief in mission and values, and 8.96% for employee support, which led to their retention as the predictor variables. The Cronbach's α score for belief in mission and values was .912 and .828 for employee support. These values showed a strong measure of internal consistency and reliability.

This researcher utilized EFA to determine if the independent variables, employee engagement, belief in mission and values, and employee support loaded on the factors that were supposed to support each of the predictor variables as constructs. In this research study, the EFA showed six items (Q2, 3, 4, 7, 9, and 17) that cross-loaded in both belief in mission and values, and employee support. Thus, leaving only one factor for employee engagement. This resulted in the elimination of employee engagement as a predictor variable. Therefore, failure of the factors under employee engagement to support its validity did not allow for this research question to be further explored. Since the items on the survey that were intended to measure employee engagement were not proven through EFA to measure this construct, no further examination of data related to employee engagement was conducted.

Do employees' beliefs in mission and values and employee support predict intent to stay among clinical care managers in the inpatient and outpatient care settings? The results of the EFA showed that belief in mission and values accounted for 53.56% of the variability in the responses with a .912 reliability coefficient and employee support accounted for 8.96% of the variance with a .828 reliability coefficient. The two variables combined accounted for 62.52% of the variances in responses. This means that belief in mission and values, and employee support were the validated constructs based on the survey questions. With two remaining predictor variables, belief in mission and values, and employee support, a binary logistic regression was utilized to understand how changes in these two predictor variables were related

with the changes in the probability of the outcome, intent to stay occurring. In this study, the predicted outcome variable, intent to stay was the probability that a respondent will choose either “Yes/Unsure” or “No” for intending to retire, move out of state or go back to school in the next three years. The values for “Yes/Unsure” were combined and coded as 1 and the value “No” was coded as 0.

Binary logistic regression discussion. The results of the binary logistic regression showed that the predictor variables, belief in mission and values, and employee support possessed multicollinearity. Multicollinearity occurs when one predictor variable can be highly correlated with other predictor variables aside from the dependent variable (White, 2012). In the present study, the association between belief in mission and values, and employee support had a statistically significant linear correlation with a p -value of $< .001$. However, when entered in the logistic regression model to examine these two predictor variables, belief in mission and values, and employee support did not predict intent to stay among clinical care managers in the inpatient and outpatient settings.

Since the independent variables did not offer any predictive capability, the removal of the only two predictive variables did not provide an opportunity to test the linearity of the independent variables. Logistic regression is common to possess problems when applying the technique with small or sparse data (van Smeden et al., 2018). Adequate to large sample size is critical to lower incidence of bias and potential volatility of the results (Osborne, 2015). Based on this, it was determined that the small sample size and the lack of multiple measures for intent to stay as a dependent variable were limiting factors that contributed to the failure in producing significant outcomes in the binary logistic regression models.

One of the distinctive processes that this research study produced was the post hoc analysis of available data that was not fully analyzed after the initially planned binary logistic regression approach failed to produce significant results. Post hoc analysis is employed when study results do not show what was originally anticipated based on the research plan that may subject the results to further questions (Curran-Everett & Milgrom, 2013). As noted previously, the failure of the binary logistic regression to show predictive qualities of belief in mission and values, and employee support on intent to stay led to the post hoc analysis and selection of a more appropriate statistical model. The post hoc analysis showed that conducting a multiple linear regression was feasible. The sole intention of conducting post hoc analysis in this research study was to maximize available data for this unique population of clinical care managers.

Multiple linear regression discussion. Prior to commencing the multiple regression model analysis, a modified measure of the dependent variable, intent to stay was completed. This process needed to be done based on the lesson learned from the binary logistic regression analysis in which the measure of the outcome variable with one distinct question with a binary response was limiting. Variability of items to measure the dependent variable in linear regression analysis is important to illustrate the extent to which the values differ from the mean (Kader, 2007). Modifying the measure of the dependent variable was accomplished by calculating the mean scores of the Likert-scale ordinal responses for Q4 “I am likely to be working for this organization three years from now” (1 for strongly disagree, 2 for disagree, 3 for tend to disagree, 4 for tend to agree, 5 for agree, and 6 for strongly agree). The mean score was added to the mean score of the original DV binary response to the question “Are you likely to retire, move out of your current region, or go back to school full time in the next three years?”

(Yes/Unsure = 1; No = 0) to complete the sum. The result was a measure of the dependent variable, intent to stay, that had higher variability.

The assumptions of multiple linear regression had to be overcome in order to complete an analysis and report significant findings. The results of the scatterplot showed no pattern in the residual plot, which gave the assumption of linearity between predictors and outcome variable (see Figure 4). The histogram also illustrated normal distribution of the kurtosis and tails (see Figure 5) indicating multivariate normality. Independence of observations or the non-existence of autocorrelation of residual variables was also a critical assumption to overcome. The Durbin-Watson statistic showed a result of 2.073, evidencing little to no autocorrelation in the data. According to Draper and Smith (1998), a value of 2 shows little to no autocorrelation. The assumption of multicollinearity was met evidenced by a 1.0 Tolerance for belief in mission and values for model 1 and a .648 Tolerance value for belief in mission and values, and employee support for model 2. Variance inflation factor (VIF) result that is closer to 1 indicates that there is no multicollinearity (Wheeler, 2016). Additionally, the VIF for model 1, belief in mission and values were 1.000 and VIF for model 2, mission and values, and employee support was 1.543.

The assumption of homoscedasticity was critical to overcome because it shows the degree of similarity of two or more variables and can be evidenced by nonnormal distribution of one or more variables under investigation (Fay, 2010). However, the histogram in this study showed that the unstandardized residual errors were still approximately distributed. As such, to overcome potentially biased results, the model was re-run to check against confidence intervals using bootstrap sampling to achieve robust estimates. This means that the residuals in this study illustrated the difference between what the regression model predicts (M) = 5.2201 and the actual data results (M) = .000. Therefore, even though the residuals showed heteroscedasticity, the

mean scores showed normal distribution of the kurtosis and tails evidenced by $SD = 1.24903$.

Finally, the selection of the most robust multiple regression model was required using only the most statistically significant predictors from a larger set of potential predictive variables based on a series of steps. The results in this study showed the adjusted R^2 produced a .267 variability for belief in mission and values, and this predictor variable had the strongest contribution and a .055 variability for employee support. This showed that both predictor variables accounted for 32.2% of the variance in the dependent variable, intent to stay with $p < .05$ indicating the statistical significance as predictors.

In summary, there was a significant linear regression model by taking the two measures, Q4 and DV and computing the third outcome, which was the sum of Q4 and the DV. The predictive variables, mission and values, and employee support accounted for 32.2% of the variability on the dependent variable, intent to stay with statistically significant p -value $< .05$. altogether provided variability and they correlate at .517 significance level. Although the normality of the variables showed heteroscedasticity, the bell curve was normally distributed and the Durbin-Watson value of 2.073 provided evidence of no autocorrelation of residual variables.

Bootstrap regression. The post hoc analysis was conducted using multiple linear regression model stepwise approach. The results revealed belief in mission and values, and employee support explained 32.2% of the variance in the dependent variable, intent to stay. The issue of heteroscedasticity of the data emerged, which was in violation of the assumptions of multiple regression analysis. However, there was evidence of normal distribution on histogram. In order to remedy this, a bootstrap regression analysis was conducted that addressed issues with confidence intervals. The results of the bootstrap regression showed beta for belief in mission and values was .731, between the range of .318 and 1.202 compared to previous values of .387

and 1.075 at 95% confidence interval. Additionally, beta for employee support was .382, which was between the range of .135 and .615. This was an illustration of more robust values compared to the previous range of .169 and .594. The *p*-values were also statistically significant at $< .05$ for belief in mission and values employee support. Therefore, the two predictor variables, belief in mission and values, and employee support produced predictive capability on intent to stay.

The failure of the binary logistic regression as a model to produce statistically significant results led to insightful observations about ensuring that the dependent variable, intent to stay should have multiple measures instead of one dichotomous response. Although the binary logistic regression analysis did not show predictive qualities, a clear relationship of the two remaining predictive variables with a *p*-value > 0.05 emerged. By constructing a discrete variable based on one interval and one dichotomous measure and combining both resulted in a new dependent variable measure that allowed for conducting a linear regression model. The significant results provided confidence in accepting the alternative hypotheses that belief in mission and values, and employee support predicted intent to stay among clinical care managers in the inpatient and outpatient settings.

Discussion of the Results in Relation to Literature

The concept of employee engagement appeared substantially in literature. Collini et al. (2015) found in their study that engagement mediated workplace respect, mission and values, and employee support on intent to stay among clinical care managers are consistent with current literature. Although the predictive variable, employee engagement was eliminated due to lack of construct validity, the concept of employee engagement emerged substantially in literature. Conrad and Ghosh (2015) illustrated in their study that different groups of professionals have

different perceptions about engagement while Daugherty Biddison et al. (2015) concluded that a supportive culture of safety in the workplace contributed to a positive correlation with employee engagement.

From a theoretical perspective, employee engagement was illustrated as a state of mind that is the product of the appropriate conditions for organizational members (Reijseger et al., 2016). This was validated by Kahn (1990) in his study “Psychological Conditions of Personal Engagement and Disengagement at Work,” which illustrated work engagement as encompassing the cognitive, physical, and emotional energy expenditure in any work role. Engagement represents intrinsic and extrinsic factors, which include job control, trust, respect, and passion (Okello & Gilson, 2015). As such, employee engagement is achieving psychological meaningfulness, safety at work, and availability (Kahn, 1990). In the present research study, Table 3 illustrated that the four factors used in the survey instrument that were assumed to support the construct of employee engagement loaded under both belief in mission and values, and employee support. As such, the concept of employee engagement for future research was discussed to understand from an operational level its predictive qualities on intent to stay when using a validated instrument with the appropriate measurement scale.

In the area of belief in mission and values, Collini et al. (2015) showed the institutional mission of altruism had a positive impact on retention. As noted in Table 4, six items in the survey instrument represented 53.56% of the variance and loaded heavily to support the construct of belief in mission and values:

- Q1. I am willing to put a great deal of effort in order to help this organization succeed.
- Q11. I believe in my organization’s mission.

Q12. I understand how my daily work contributes to the organization's mission.

Q13. My organization gives back to the community.

Q14. My organization provides excellent care to patients.

Q15. My organization provides excellent customer service to patients.

Organizational mission and values represent the identity of any organization and in order to move organizations positively, leaders should align efforts with the mission and vision to sustain positive performance (Cheema et al., 2015; Dermal & Sirka, 2017). Therefore, organizations that have a mission for public service inspires motivation and motivational properties of mission-driven organizations provide insight to employees' intent to stay or leave their jobs (Caillier, 2016; Roh et al., 2016).

Employee support is the outcome of social exchange between employees and the organization that impacts intent to stay through supportive managerial environments inspire creativity and innovation among employees (Kalidass & Bahron, 2015; Kahn, 1990). As noted in Table 4, there were five items in the survey that represented 8.96% of the variance and loaded heavily to support the construct of employee support:

Q5. I have a manageable workload.

Q6. My manager helps me balance my job and personal life.

Q8. My organization helps me deal with stress and burnout.

Q10. My unit/department has enough staff.

Q16. Over the past year, I have never been asked to do something that compromises my values.

Congruent with current literature, employees who feel supported achieve a level of trust, positive connections, and positive perceptions about organizational leaders and co-workers and a

lack of trust may predispose organizations to higher attrition, lower commitment, and lower intent to stay of employees (Christie et al., 2015; Okello & Gilson, 2015). As such, the predictive qualities of employee support on intent to stay is critical in today's healthcare workforce.

The final construct and the outcome variable in the present study was intent to stay. Intent to stay is characterized as the deliberate decision of an employee to not leave a job based on specific factors and it is closely-linked to work engagement, support from managers, work opportunities, work environments, job satisfaction, and organizational mission (Collini et al., 2015; Eltaybani et al., 2018; Han et al., 2015; Park et al., 2016). The present study originally measured intent to stay using the binary response "Yes/Unsure" or "No" based on the question in the survey, "Are you likely to retire, move out of your current region, or go back to school full time in the next three years?" As noted previously, the results of the logistic regression analysis produced non-statistically significant results. The post hoc analysis concluded that limiting the measure of the outcome variable to one distinct question with a binary response was insufficient. Therefore, the ordinal scale responses represented by 1 = strongly disagree, 2 = disagree, 3 = tend to disagree, 4 = tend to agree, 5 = agree, 6 = strongly agree in Q4 "I am likely to be working for this organization three years from now" were combined with the mean of the dichotomous outcome variable represented by Yes/Unsure = 1 and No = 0 completed the sum. This resulted in more variability in measuring the dependent variable.

The subsequent result of the multiple regression analysis showed that belief in mission and values, and employee support possessed predictive qualities on intent to stay of clinical care managers in the inpatient and outpatient setting. As such, the role of effective leadership practices in contributing to engagement, providing positive staff support, and contributing to the

overall mission of the organization must be cultivated (Eltaybani et al., 2018). As the outcome variable in this study, the constructs of employee engagement, belief in mission and values, and employee support were examined to answer the question of predictive probability.

In summary, currently available literature has ample evidence to support the assertion that employee engagement, belief in mission and values, and employee support predicted intent to stay. The present study explored the question further by focusing on a unique population of clinical care managers in the inpatient and outpatient settings. In this research study, the step taken to eliminate the construct of employee engagement due to errors in construct validity have no bearing on current empirical evidence and future potential to explore its impact on many other possible viable outcome variables. The results of the present research study contributed to current body of knowledge related to clinical care managers' and other healthcare professionals' predictors of intent to stay in their current jobs or with their current organization. The distinct challenges this population aggregate is currently facing will continue to escalate if enterprise leaders do not prioritize organizational efforts to bolster clinical care managers' intent to stay in their current positions or with the organization.

Limitations

The present research study revealed limitations in sample size, lack of construct validity of some of the items in the survey instrument, and lack of variability in the features of the dependent variable contributed to the nonsignificant results of the initial binary logistic regression analysis. Logistic regression models require a larger sample size to decrease the chances of bias and foreseeable volatility of results (Osborne, 2015). As such, the sample size ($n = 160$) of the present research study proved to be a major issue when combined with the issue of variability of the questions used to measure the dependent variable. Van Smeden et al. (2018)

noted that sparse data have been observed to cause problems when applying the binary regression technique due to the required number of responses per factor.

Another limitation was constraining the outcome variable, intent to stay to one distinct question with a binary response. Other research studies have shown that variability of items that measure the dependent variable is critical to show the parameters to which the values differ from the mean (Kader, 2007). However, the post hoc analysis illustrated that since there was a clear correlation of the two remaining predictor variables, belief in mission and values, and employee support, remedying the variability issue of measuring the dependent variable was logical. Therefore, survey item Q4 “I am likely to be working for this organization three years from now,” which was measured in Likert-scale responses but was removed based on the EFA was later combined with the dichotomous dependent variable question, “Are you likely to retire, move out of your current region, or go back to school full time in the next three years?” to provide variability of the items to measure intent to stay. As shown in Table 4, the mean scores of Q4 were calculated and added with the mean score of the DV to complete the sum. These values were used as the multiple regression analysis was conducted.

Additionally, a critical limitation was although the present study showed high internal reliability with a Cronbach’s α for belief in mission and values at .912 and .828 for employee support, the survey instrument may not have been the most appropriate to measure the constructs of employee engagement, belief in mission and values, and employee support that were originally planned for examination. In the absence of published peer-reviewed and validated survey instrument, a researcher may predispose a study to foreseeable challenges in data analysis. As noted previously, the results of the EFA led to the retention of belief in mission and values, and employee support as the two remaining constructs for examination. The elimination

of employee engagement as a predictor variable limited further examination of its predictive probability on intent to stay.

Another limitation was the cross-sectional approach, which restricts collection of data only to a specific time period. Current literature suggests that a cross-sectional design predisposes a study to limitation for changes in perceptions of respondents compared to longitudinal studies (Han et al., 2015; Karanika-Murray et al., 2016). Thus, different results may have been observed if the survey was conducted more than once during a specified time period with the same or similar population aggregate.

Finally, this study was conducted only at one site and limited to internal employees of the subject organization. As such, the results may not be generalized to a larger population of similarly situated clinical care managers. The small sample size also limited its generalizability even to similarly structured organizations.

Implication of Results for Practice, Policy, and Theory

The results of the present research study added knowledge to existing literature pertaining to practices of healthcare organizations to bolster clinical care managers' intent to stay in the current positions in the inpatient and outpatient care settings by healthcare enterprise leaders. Additionally, the constructs of belief in mission and values, and employee support, which comprised 32.2% of the variability in responses offer pertinent information to support their qualities as predictor variables on intent to stay. Based on the results of this research study, clinical care managers who believe in the mission and values of the organization and who experience specific attributes of employee support were likely to intend to stay in their jobs or within the organization. The impetus for this research study was the concern for rising healthcare costs in today's value-based health care reimbursement models and the financial

impact of unsuccessful strategies of healthcare enterprise leaders to strengthen efforts to retain clinical care managers. As such, enterprise leaders of healthcare organizations cannot undermine proactive efforts in sustaining an organizational culture where employees are clear about their understanding of the organizational mission and values. The present research study provided new evidence-based knowledge by achieving results to validate the statistically significant predictive values of belief in mission in values, and employee support on intent to stay of clinical care managers. This new evidence-based knowledge may be used as a lens by organizational leaders in policymaking and in developing, sustaining, and promoting workplace strategies and initiatives using predictors of intent to stay among clinical care managers in the inpatient and outpatient settings.

From a theoretical perspective, the adapted conceptual model used in the present research study based on the conceptual model of intent to stay by Boyle et al. (1999) illustrated congruence with empirical research about predictors of intent to stay. The three intervening variables from Boyle's conceptual model were substituted with employee engagement, belief in mission and values, and employee support as predictor variables in the present research study. Each of these predictor variables was represented by constructs from literature review.

The adapted conceptual model that emerged from this research study on clinical care managers' intent to stay added to the current body of knowledge, including the new findings related to the constructs and the factors that support them. Specifically, the findings related to the predictive qualities of belief in mission and vision and employee support that were dismissed using binary logistic regression but were confirmed post hoc through multiple linear regression analysis may help guide future research. Additionally, the validation of the factors that were assumed to support the constructs of employee engagement, belief in mission and values, and

employee support through exploratory factor analysis (EFA) led to the elimination of employee engagement as a predictor variable and the confirmation of the two remaining variables. Finally, the potential to develop a more robust survey instrument based on the lessons learned from this research study using variability in the questions to measure the dependent variable provides additional insight. These findings will provide a direct pathway to the most appropriate statistical analysis to measure intent to stay among clinical care managers in the inpatient and outpatient settings.

Recommendations for Further Research

The reliable results of the present research study showed 32.2 % variability on intent to stay from belief in mission and values, and employee support. However, 68.8% of the variation remained unexplained. As such, adding other independent variables could improve the fit of the model in future studies related to the examination of predictors of intent to stay.

Employee engagement and disengagement as constructs. The elimination of employee engagement based on the EFA did not allow for further discussion of the rich literature to support this construct. As such, recommendation for further research merits the discussion of employee engagement and disengagement as constructs. In the present study, the illustration of employee engagement and work disengagement constructs through Kahn's theory of "Psychological Conditions of Personal Engagement and Disengagement at Work" (PCED) as a seminal source was extensively reviewed. The theoretical framework may provide a better validation of factors that measure engagement and disengagement especially when selecting or crafting future survey instruments. The PCED theory illustrates that employees can harness their "full self" by achieving three psychological conditions (Kahn, 1990). The theory of work engagement was first described as the totality of a person's physical, emotional, and cognitive

states (Kahn, 1990). The theory was further described as having the ability to incorporate these states of being by employees into their jobs and roles (Kahn, 1990).

Conditions of engagement at work is a psychological state that is influenced by an employees' internal work motivation, manifested by a sense of meaning, feeling of safety, and perceptions of readiness to continue performing a duty (Kahn, 1990). On the other hand, personal disengagement is the simultaneous withdrawal of an employee's full self in behaviors that are not conducive to positive connections and performance (Kahn, 1990). Disengaged employees have bad states of health, depressive symptoms, and poor work abilities (Fragoso et al., 2016). Kahn recognized that there are moments in which people are able to bring themselves in or take themselves away from tasks or behaviors at work; but by focusing on these moments of performing tasks, the PCED identified variables that employees use to adjust their psychological states in their individual roles to remain engaged (Kahn, 1990).

Meaningfulness. Psychological meaningfulness is a feeling that an employee is receiving in return for the investment he or she has placed in the physical, cognitive or emotional energy at work (Kahn, 1990). Engagement, belief in mission, and employee support as independent variables may be the outcome of finding meaning in employee work input. Putra, Cho, and Liu (2015) asserted that achieving meaningfulness at work can also stimulate extrinsic and intrinsic motivators that contribute to higher work engagement. Kahn (1990) concluded that personal engagement was connected to higher levels of psychological meaningfulness. Further, employees who achieved this level often demonstrated and described their work as challenging, clearly delineated, and varied. Finally, the rewarding impact of interpersonal interactions, creativity, and a level of autonomy affect psychological meaningfulness warrant additional highlighting (Kahn, 1990).

Safety. The psychological condition under this construct refers to the employees' ability to bring their full self to work without risk of negative consequences to self-image, status or career (Kahn, 1990). Engagement requires employees to assess their feelings about specific aspects of their work (Mayo, 2016). These aspects or characteristics include factors such as control, trust, passion, and the achievement of goals and performance standards (Okello & Gilson, 2015). Shantz, Alfes, and Arevshatian (2016) concluded that there is a positive relationship between supportive management practices and safety. Generally, people feel safe when they trust that possessing some degree of control at work when they try to be creative as part of personal engagement regardless of outcomes would not have personal ramifications (Kahn, 1990).

Availability. Kahn described psychological availability as an employee's feeling of having the physical, emotional or psychological resources to personally be engaged resulting in a person's readiness to engage even with the distractions (Kahn, 1990). Kahn added that these elements may encompass physical energy, emotional energy, level of insecurity about the people and work systems, and outside life that may take people away psychologically from their work performances (Kahn, 1990). Moloney et al. (2016) addressed the issue of nurses' aging population and retention rates and found that personal demands and personal resources affected the nurses' engagement resulting in escalation of their intentions to leave their jobs. Therefore, since people's outside lives could increase or decrease their availability at work, the human and personal perspectives on engagement warrant highlighting, especially in setting boundaries that separate work and nonwork elements (Kahn, 1990).

The sense of meaningfulness, safety, and availability as the pivotal elements in Kahn's theory of psychological conditions of engagement and disengagement at work are closely aligned

with the variables in this present study. The survey on safety attitudes showed a strong positive correlation between employee engagement and unit-level indices of safety attitudes (Daugherty Biddison, 2016). Value-driven organizations derive a sense of altruism from employees that ignites a higher level of motivation to serve the public as a form of prosocial motivator (Homberg et al., 2015).

In organizations, the individual roles and relations are defined through which participants perform a collective function to perform some good or service (Fragoso et al., 2016). Clinical care managers as the sample population for this study possessed independent skillsets and decision-making to deliver care. However, the most important aspect of a successful care delivery is the ability to coordinate care through efficient communication processes as the outcome of all collaborative efforts. Therefore, modeling research on work engagement or disengagement through the lens of PCED may provide a comprehensive insight that can be used in a variety of employee populations.

Other lessons. Other lessons learned from the results of the present study include a critical consideration of sample size to avoid type I errors of incorrectly rejecting the null hypothesis and type II errors of failing to reject the null hypothesis by ensuring adequate representative sample. Further, crafting or selecting a survey instrument using employee engagement, belief in mission and values, and employee support using validated constructs learned from this study or as recommended for the future will allow a researcher to tailor research design precisely. Another consideration is utilizing a longitudinal versus cross-sectional study design. Since the construct of intent to stay possess both intrinsic and extrinsic factors that may have a different impact on employees across time, a longitudinal study may provide a better picture of the true state of an employee's engagement, belief in mission and values, and the

experience of employee support. Finally, utilizing the adapted conceptual model that was developed in this study based on Boyle's conceptual model of intent to stay can serve as a guide in literature review and research planning.

Conclusion

The main purpose of this quantitative research study was to examine whether employee engagement, belief in the organization's mission and values, and employee support predict intent to stay in their positions as clinical care managers in the inpatient and outpatient settings. The challenging costs of health care resulting in value-based models of healthcare reimbursement are now focused on outcomes of care as the index for reimbursement (Dale, 2016). Enterprise leaders of healthcare organizations must think of ways to address the impact of adding costs in healthcare due to failure to retain employees and lack of understanding of the possible determinants of employees' intentions to stay in their jobs (Skillman et al., 2017). Specifically, there have been published estimates of hospital expenditures suggesting total costs that are directly related to staff turnover may be double or triple a nurse's annual salary, which encompass costs for recruitment, job orientation, and employee benefits (Reina et al., 2018). Thus, staffing retention of nurses remains a global issue and organizational leaders must understand the factors leading to an employee's decision to remain or leave their positions (Rodwell et al., 2017).

The conceptual model of intent to stay developed by Boyle et al. (1999) guided literature review and research design. The model relies on the premise that nurses' intent to stay in their jobs as directly linked to four predictor variables and three intervening variables that lead to intent to stay (Boyle et al., 1999). The present research study adapted this conceptual framework and modeled the intervening variables to fit the predictor variables, employee engagement, belief

in mission and values, and employee support. Thus, the findings of the present research study may contribute to the understanding in the field of human resource management to address whether employee engagement, belief in mission and values, and employee support are strong predictors of intent to stay among clinical care managers in the inpatient and outpatient settings. The findings as applied to the unique population of clinical care managers in this study may also assist healthcare organizations in deploying strategies to address staffing challenges in recruitment and retention in this distinct group of professionals. The review of literature review provided rich data to support the strategies related to continuous organizational movement to sustain employee retention.

The causal-comparative research design of this study examined the three predictor variables and one dependent variable using constructs from a survey questionnaire. Secondary data was taken from the employee engagement survey in 2018 of a large health in the western United States. The health system was comprised of a large quaternary medical center and a vast physician network entity. The population consisted of 160 clinical care managers who were either licensed nurses or clinical social workers in the inpatient and outpatient care settings.

The research study began using a survey instrument developed by a private company that was assumed to have been validated. However, other than the reliability documentation, no other was made available by the company representative to support the instrument's construct validity. As a result, an exploratory factor analysis (EFA) was conducted to validate the four factors that were assumed to support the constructs of employee engagement, six factors that support belief in mission and values, and six factors for employee support. The EFA in this study showed lack of construct validity of employee engagement as a predictor variable leading to its elimination as a predictor variable and the removal of five factors that double-loaded into

other constructs. Belief in mission and values showed 53.56% of the common variance (6 factors) with high internal reliability of .912 and employee support showed 8.96 of the common variances (5 factors) with internal reliability of .828.

The analysis proceeded with binary logistic regression that did not show any predictive probability for belief in mission and values, and employee support on intent to stay. The non-significant results can be attributed to the small sample size and lack of variability of the dichotomous response to measure the outcome variable. On the other hand, a significant finding was the correlation of both predictor variables with a p -value of $< .001$. With this strong correlation, the binary logistic regression analysis cannot proceed because the only two remaining predictive variables had to be removed. Therefore, the binary logistic regression analysis employed in this study failed to reject the null hypothesis that belief in mission and values, and employee support did not predict intent to stay among clinical care managers in the inpatient and outpatient settings. However, post hoc analysis was conducted based on the significant finding in the correlation of the two remaining predictor variables. After careful review, the eliminated item in the survey as a result of the EFA labeled as Q4 that asked “I am likely to be working for this organization three years from now” using an ordinal scale was combined with the binary response of the dependent variable that created a more meaningful composite for the outcome responses to measure intent to stay.

The post hoc analysis continued, and a multiple linear regression model was conducted using the stepwise approach and it showed that belief in mission and values, and employee support explained 32.2% of the variance in the dependent variable, intent to stay. Although there was a challenge in the heteroscedasticity of the data, there was evidence of normal distribution on histogram. As a result, a bootstrap regression analysis was performed to address the issues

related to confidence intervals. The bootstrap analysis showed values that illustrate at 95% confidence interval, beta for belief in mission and values was .731, between the range of .318 and 1.202 compared to previous values of .387 and 1.075. Similarly, beta for employee support was .382 between the range of .135 and .615, which was more robust compared to the previous range of .169 and .594 and 95% confidence interval. The *p*-values showed significant results for both belief in mission and values at $< .05$. Therefore, the null hypothesis that belief in mission and values, and employee support did not predict intent to stay among clinical care managers in the inpatient and outpatient settings were rejected.

In conclusion, the main purpose for the present research study, which was to examine the predictive qualities of the variables selected and to add knowledge to existing literature was fulfilled. Although literature review for the present study showed available literature in employee engagement, mission, values, motivation, support, among many others, there was a need for more focused studies on the impact of these predictor variables on intent to stay for the unique population of clinical care managers. The lessons learned from the initial research design and the actual outcomes of the analyses conducted provided a meaningful baseline for further examination of these constructs. Additionally, although the sample for the present research study was limited to one healthcare facility, the similarities in intervening variables that may commonly occur in other healthcare organizations as illustrated by literature were congruent with the results of this study. Further, the creation of an adapted conceptual model for clinical care managers' intent to stay, the validation of a survey instrument, and a statistical model that can be replicated by future researchers on this topic are important contributions to the current body of knowledge. Finally, the hope is for healthcare organizations that employ clinical care managers in the inpatient and outpatient settings to leverage new or existing that focus on bolstering

employee beliefs in organizational mission and values. Further, organizational practices that strengthen the promotion of employee support by staff and leadership to achieve positive impact on intent to stay in their current positions need to be sustained. As value-based purchasing models for healthcare reimbursement become more stringent in demanding quality outcomes at a lower cost of delivery, sustaining the healthcare workforce through innovative strategies will need to be at the forefront of organizational workforce planning.

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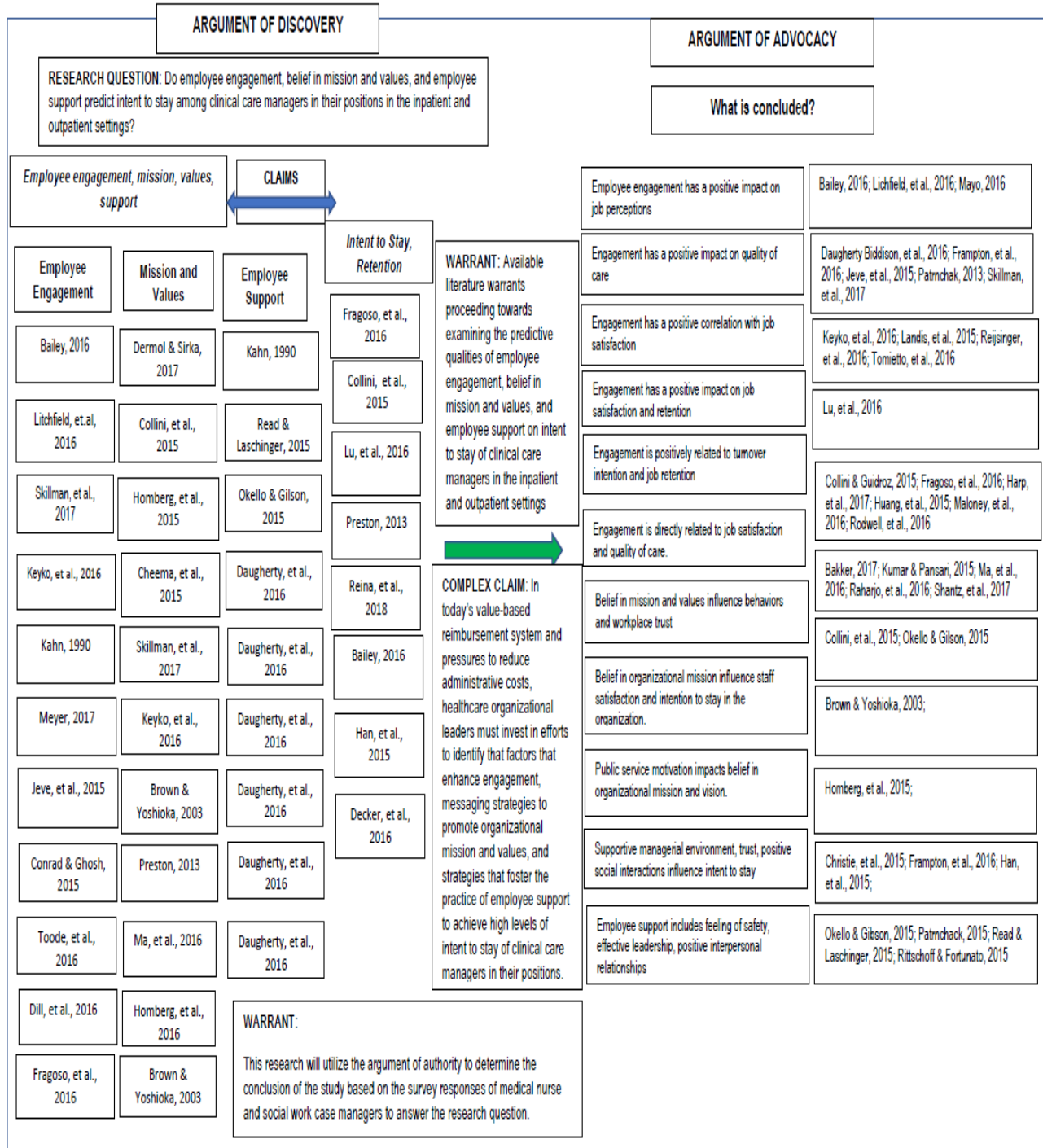
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Appendix A: Diagram of the Argument of Discovery and Advocacy



Appendix B: Permission to Use Conceptual Model of Intent to Stay Illustration

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Apr 26, 2019

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Portion	chart/graph/table/figure
Number of charts/graphs/tables/figures	1
The requesting person/organization is:	Carlo Carado
Title or numeric reference of the portion(s)	Conceptual Model of Intent to Stay Page 363, Figure 1
Title of the article or chapter the portion is from	Managers' Leadership and Critical Care Nurses' Intent to Stay
Editor of portion(s)	N/A
Author of portion(s)	N/A
Volume of serial or monograph.	N/A
Page range of the portion	363
Publication date of portion	November 1999
Rights for	Main product
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Appendix C: The Advisory Board Company: Employee Engagement Survey Question Set

Engagement Index Methodology and Validation

Overview of Research Background and Survey Testing

Research Methodology

In order to produce a robust measure of engagement, it is first necessary to recognize the particular characteristics of an engaged employee. While a survey respondent can reliably self-report on satisfaction, it is more difficult to self-report on something as encompassing as “engagement”. This is not only because engagement is a broadly-defined term, but also because engagement is dependent upon an employee’s relationship to his/her employer. To that end, it is helpful to determine a measure of engagement based on responses to multiple questions that are themselves related to a respondent’s underlying level of engagement.

It is important to avoid conflating *characteristics* of an engaged employee with actual *drivers* of employee engagement. Given that, the Advisory Board research aimed to first determine the characteristics of engagement, and then to identify the organizational attributes that contribute to an employee’s likelihood to embody those characteristics. Those characteristics were revealed through a qualitative meta-analysis of organizational psychology literature, consistently touted as being indicative of engaged employees. Ultimately, the Advisory Board uses four questions to measure engaged based on these characteristics.



Characteristics of Engaged Employees

- Willingness to provide additional discretionary effort
- Feeling of inspiration to do their best work
- Emotional commitment to the organization (typically measured by “willingness to recommend”)
- Plans to remain as an employee of the organization in the future

Survey Validation

First validated against a sample of 6,000 nurses, the Advisory Board employee engagement survey has since been administered to over a million respondents. The set of survey questions that comprise the engagement index is backed by extensive research and supported by various psychometrics, including a Cronbach’s alpha of .98 as a measure of internal consistency and reliability. For reference, a Cronbach’s alpha above .8 is considered a strong score.

In practice, the calculated engagement index measure is positively correlated with a variety of critical business outcomes including employee performance, patient turnover, and perceptions of safety culture.

Employee Engagement Survey Question Set (continued)

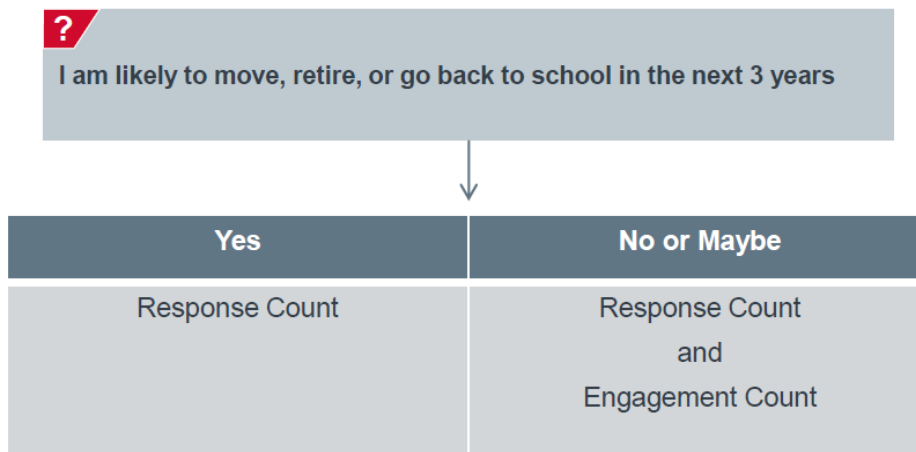
Who is Included in the Engagement Count?

The engagement count includes individuals who indicated that they do not intend to move out of the region or retire in the next three years, and therefore have a valid engagement score calculated. By contrast, all survey respondents, including those planning to leave the organization, are included in the total response count.

The Advisory Board makes a distinction between these two counts because of the use of loyalty as a measure of engagement. Academic and professional literature on engagement consistently suggests that loyalty is an important component of engagement. For this reason, one of the Advisory Board's questions for measuring engagement is, "I am likely to be practicing at this organization three years from now."

Of course, there are external reasons an individual may choose to leave the organization within three years – primarily, retirement or relocation outside of the region. The Advisory Board asks a control question at the beginning of its engagement surveys to assess whether individuals are planning to do either of those things in the next three years. If they respond with a "yes", their responses to the four engagement questions are not counted, and they are not included in the engagement count.

National-level analyses show that keeping these responses tends to artificially deflate engagement scores. However, driver question scores are retained for these individuals so their perspectives are factored into prioritizing which issues should be addressed to drive engagement. If respondents indicate "maybe" or "no" to the control question, they do receive an engagement score.



Source: "Employee Engagement Higher at Double-Digit Growth Companies," *Hewitt Research Brief*, 2004; "Working Today: Understanding What Drives Employee Engagement," *Towers Perrin Talent Report*, 2003; Wellins RS, et al., "Employee Engagement: The Key to Realizing Competitive Business Outcomes: A Meta-Analysis," *Journal of Applied Psychology*, 2002, 87(2): 268-279; Harter, JK, et al., "Well-Being in the Workplace and its Relationship to Business Outcomes: A Review of Gallup Studies," *American Psychological Association Press*, 2003; "Driving Performance and Retention Through Employee Engagement," *Corporate Executive Leadership Council*, 2004; Laschinger HK, et al., "Organizational Trust and Empowerment in Restructured Healthcare Settings: Effects on Staff Nurse Commitment," *Journal of Nursing Administration*, 2000, 30(9): 413-425; Kahn, WA, "Psychological Conditions of Personal Engagement and Disengagement at Work," *The Academy of Management Journal*, 1990, 33(4): 692-724; May EL, "Are People Your Priority?" *The Great Place to Work Institute, Healthcare Executive*, 2004; HR Investment Center analysis.

Employee Engagement Survey Question Set (continued)

Engagement Index Versus Engagement Drivers

Engagement Index



- 4 questions
- Measures attributes of an engaged employee
- Serves as dependent variable

Engagement Drivers



- 42 questions
- Measures employee perceptions of items that impact engagement
- Serves as independent variable

Employee Engagement Survey Question Set (continued)

Survey Methodology

Engagement Index and Categories

Engagement Index

Asked on 6-Point Likert Scale¹

- This organization inspires me to perform my best
- I am willing to put in a great deal of effort in order to help this organization succeed
- I would recommend this organization to my friends as a great place to work
- I am likely to be working for this organization three years from now²

Engagement Profile

By Category and Index Score Range

Category	Range	Definition
Engaged³	5.5 - 6	<ul style="list-style-type: none"> • Go above and beyond to see the organization succeed, tying personal success directly to that of organization • Highly loyal and emotionally committed to the organization
Content	4.5 - 5.49	<ul style="list-style-type: none"> • Solid contributors, satisfied with their jobs and the organization • Lacking emotional commitment to organization
Ambivalent	3.5 - 4.49	<ul style="list-style-type: none"> • Would leave if presented with a better offer • See job as paycheck more than anything else
Disengaged	< 3.5	<ul style="list-style-type: none"> • Least satisfied with their job and organization • Tend to be most vocal, actively detracting from quality of workplace for peers

- 1) Response options are strongly agree, agree, tend to agree, tend to disagree, disagree, strongly disagree
- 2) In order to ensure that employees who plan to leave within three years for reasons outside of their level of engagement do not confound the engagement score, all respondents are asked the following question at the beginning of the survey: "Are you likely to retire, move out of your current region, or go back to school full time in the next three years?" If a respondent answers "yes," his/her response is removed from the engagement calculation but retained for driver questions. If the respondent answers "no" or "unsure," his/her response is included in the engagement calculation.
- 3) To be considered "engaged," or "aligned," respondents must answer "Strongly Agree" to at least two of the index questions and no less than "Agree" to any item.

Employee Engagement Survey Question Set (continued)

Employee Engagement Survey Question Set

Advisory Board's 42 Engagement Drivers

COMMUNICATION AND INPUT

I am kept informed of the organization's future plans and direction
My ideas and suggestions are valued by my organization
My manager communicates messages that my coworkers need to hear, even when the information is unpleasant
My manager is open and responsive to staff input
My manager stands up for the interests of my unit

EMPLOYEE SUPPORT

I have a manageable workload
My manager helps me balance my job and personal life
My organization does a good job of selecting and implementing new technologies to support my work
My organization helps me deal with stress and burnout
My organization supplies me with the equipment I need
My unit/department has enough staff

FEEDBACK AND RECOGNITION

Executives at my organization respect the contributions of my unit
I have helpful discussions with my manager about my career
I know what is required to perform well in my job
I receive regular feedback from my manager on my performance
My organization recognizes employees for excellent work

BASELINE SATISFIERS

I have job security
My organization pays me fairly for my job
My organization supports employee safety
My organization understands and respects differences among employees
The benefits provided by my organization meet my needs

MISSION AND VALUES

I believe in my organization's mission
I understand how my daily work contributes to the organization's mission
My organization gives back to the community
My organization provides excellent care to patients
My organization provides excellent customer service to patients
Over the past year I have never been asked to do something that compromises my values
The actions of executives in my organization reflect our mission and values

TEAMWORK

Abusive behavior is not tolerated at my organization
Conflicts are resolved fairly in my unit/department
I have good personal relationships with coworkers in my unit
I receive the necessary support from employees in my unit to help me succeed in my work
I receive the necessary support from employees in other units to help me succeed in my work
My coworkers do a good job

PROFESSIONAL GROWTH

I am interested in promotion opportunities in my unit
I have the right amount of independence in my work
I receive effective on the job training
If I wanted to explore other jobs within the organization, my manager would help me do that
My current job is a good match for my skills
My manager helps me learn new skills
My most recent performance review helped me to improve
Training and development opportunities within my organization have helped me to improve

Employee Engagement Survey Question Set (continued)

Employee Engagement Survey Question Set

Advisory Board's Engagement Index

* Required	Strongly Disagree	Disagree	Tend To Disagree	Tend To Agree	Agree	Strongly Agree
* I am willing to put in a great deal of effort in order to help this organization succeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* This organization inspires me to perform my best.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* I would recommend this organization to my friends as a great place to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* I am likely to be working for this organization three years from now.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Are you likely to retire, move out of your current region, or go back to school full time in the next three years?
 Yes No Unsure

Setting a High Bar
 To be considered "engaged," respondents must answer "Strongly Agree" to at least two of the four items listed above, and no less than "Agree" to any item.

Defining Engagement Categories

Category	Index Score Range	Definition
Engaged	5.5 - 6	<ul style="list-style-type: none"> Go above and beyond to see the organization succeed, tying personal success directly to that of organization Highly loyal and emotionally committed to the organization
Content	4.5 - 5.49	<ul style="list-style-type: none"> Solid contributors, satisfied with their jobs and the organization Lacking emotional commitment to organization
Ambivalent	3.5 - 4.49	<ul style="list-style-type: none"> Would leave if presented with a better offer See job as paycheck more than anything else
Disengaged	< 3.49	<ul style="list-style-type: none"> Least satisfied with their job and organization Tend to be most vocal, actively detracting from quality of workplace for peers

Appendix D: Kaiser-Meyer-Olkin Measure of Sample Adequacy and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.912
Bartlett's Test of Sphericity	Approx. Chi-Square	1880.514
	df	136
	Sig.	.000

Communalities		
	Initial	Extraction
I am willing to put in a great deal of effort in order to help this organization succeed.	.666	.673
This organization inspires me to perform my best.	.779	.719
I would recommend this organization to my friends as a great place to work.	.749	.680
I am likely to be working for this organization three years from now.	.521	.427
I have a manageable workload	.543	.421
My manager helps me balance my job and personal life	.593	.568
My organization does a good job of selecting and implementing new technologies to support my work	.677	.552
My organization helps me deal with stress and burnout	.712	.734
My organization supplies me with the equipment I need	.626	.414
My unit/department has enough staff	.547	.377
I believe in my organization's mission	.727	.709
I understand how my daily work contributes to the organization's mission	.639	.632
My organization gives back to the community	.605	.509
My organization provides excellent care to patients	.702	.600
My organization provides excellent customer service to patients	.720	.680
Over the past year I have never been asked to do something that compromises my values	.401	.369
The actions of executives in my organization reflect our mission and values	.662	.669

Appendix E: Total Variance

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.106	53.564	53.564	8.696	51.154	51.154
2	1.522	8.955	62.519	1.036	6.096	57.250
3	.939	5.521	68.040			
4	.781	4.595	72.635			
5	.709	4.172	76.807			
6	.629	3.697	80.504			
7	.513	3.015	83.520			
8	.460	2.704	86.224			
9	.401	2.361	88.585			
10	.362	2.128	90.713			
11	.334	1.967	92.680			
12	.287	1.687	94.367			
13	.266	1.563	95.931			
14	.226	1.327	97.257			
15	.194	1.139	98.396			
16	.152	.894	99.290			
17	.121	.710	100.000			

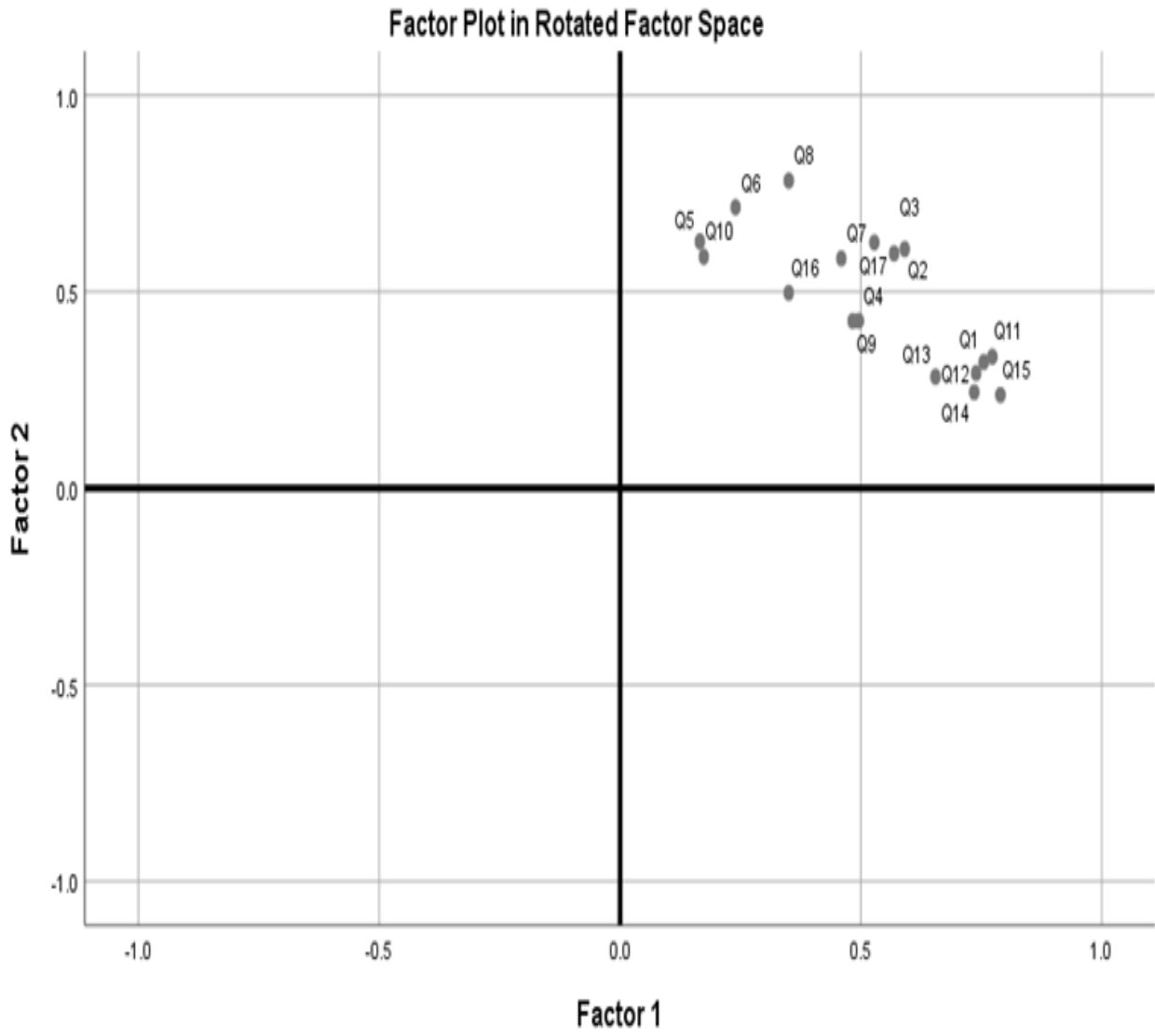
Factor Transformation Matrix Varimax With Kaiser Normalization

Factor Transformation Matrix		
Factor	1	2
1	.759	.651
2	-.651	.759

Appendix F: Related Factor Matrix

Rotated Factor Matrix^a		
	Factor	
	1	2
Q1: I am willing to put in a great deal of effort in order to help this organization succeed.	.755	.321
Q2: This organization inspires me to perform my best.	.591	.608
Q3: I would recommend this organization to my friends as a great place to work.	.569	.597
Q4: I am likely to be working for this organization three years from now.	.496	.426
Q5: I have a manageable workload	.166	.627
Q6: My manager helps me balance my job and personal life	.240	.715
Q7: My organization does a good job of selecting and implementing new technologies to support my work	.459	.584
Q8: My organization helps me deal with stress and burnout	.350	.782
Q9: My organization supplies me with the equipment I need	.483	.425
Q10: My unit/department has enough staff	.174	.589
Q11: I believe in my organization's mission	.773	.334
Q12: I understand how my daily work contributes to the organization's mission	.739	.293
Q13: My organization gives back to the community	.655	.284
Q14: My organization provides excellent care to patients	.735	.244
Q15: My organization provides excellent customer service to patients	.790	.237
Q16: Over the past year I have never been asked to do something that compromises my values	.350	.497
Q17: The actions of executives in my organization reflect our mission and values	.528	.625

Appendix G: Rotated Factor Space Plot



Appendix H: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*



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July 11, 2019

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