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Director of Nursing Role Conflict and Ambiguity, Commitment, and Intent to Stay

Amy Elizabeth Thiesse
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral dissertation by

Amy Thiesse

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Review Committee
Dr. Leslie Hussey, Committee Chairperson, Nursing Faculty
Dr. Janice Long, Committee Member, Nursing Faculty
Dr. Anna Valdez, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
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Abstract

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by

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MSN, Walden University, 2013

BSN, Mount Marty College, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

High rates of turnover and the limited tenure of directors of nursing (DONs) in long-term care creates instability in the nursing workforce and the quality of care provided. Organizations, industry, and stakeholders have made little progress to change this turnover crisis. The purpose of this quantitative study, guided by organizational role and social exchange theories, was to determine if there was a difference in levels of affective organizational commitment and intent to stay mediated by leader-member exchange in long-term care DONs with different levels of role conflict and role ambiguity. The key variables were measured with the Role Questionnaire, Leader-Member Exchange Scale 7, Affective Commitment Questionnaire, and the Intent to Stay Scale. DONs were recruited via e-mail and social media, and 126 participants completed the surveys with 42 experiencing high role conflict and 13 experiencing high role ambiguity. Results revealed no differences in the levels of affective organizational commitment or intent to stay between DONs with high versus low levels of role conflict or role ambiguity. However, role ambiguity and leader-member exchange, but not role conflict, significantly predicted a DON's affective organizational commitment and intent to stay. Future research could consider the levels of role conflict and role ambiguity experienced by the DON and the tenure of the DON and the effect on the quality of resident care provided. The results of this study could impact positive social change by being used to advocate for role clarity and improve relationships with leaders to increase DON tenure, which would improve nurse workforce turnover and the quality provided in long-term care.

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Dedication

I would like to dedicate my dissertation to the directors of nursing whose leadership journeys have guided my inquiry towards positive social change to support the dedicated leaders caring for our aging populations.

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To Dr. Leslie Hussey and Dr. Janice Long, thank you for your words of encouragement during residencies, writing, and reviews. Your constant support and motivation kept me on task along this journey to scholar-practitioner. I am so thankful for your insight and recommendations that led to the completion of this dissertation. I will forever remember the two of you as integral to my leadership practice and my pursuit of reducing director of nursing turnover to improve the lives of those working and living in long term care.

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Chapter 1: Introduction to the Study

Introduction

The staffing crisis in America's nursing homes continues despite calls to action by the Institute of Medicine (IOM; 2011) and long-term care (LTC) advocacy groups over the past decade (American Health Care Association [AHCA], 2014). Instability in leadership, such as turnover of the director of nursing (DON), disrupts nurse staffing and quality of care (Hunt et al., 2014; Krause, 2012). The annual DON turnover rate of 32% and mean tenure of less than 3 years has implications for regulators, consumers, and leaders of the 15,656 nursing homes in the United States (AHCA, 2012; Hunt et al., 2012; Rao & Evans, 2015; Siegel & Sikma, 2015). The positive correlation of DON turnover with front-line staff turnover further emphasizes the consequence to the LTC workforce when rates of turnover for registered nurses (RNs), licensed practical nurses (LPNs), and certified nurse assistants are 50%, 36.4%, and 51.5%, respectively (AHCA, 2014; Castle & Lin, 2010; Centers for Disease Control and Prevention, 2017; Krause, 2012; Trinkoff et al., 2015). Researchers suggest DON turnover and tenure is guided by personal and organizational characteristics, relationship structures, and the values and culture of each DON and LTC facility (Castle & Lin 2010; Graen & Uhl-Bien, 1995; Krause, 2012; Matta, Scott, Koopman, & Conlon, 2015; Rao, 2013; Siegel & Sikma, 2015; Siegel, Young, Leo, & Santillan, 2012; Tremblay, Hill, & Audé, 2017; Trinkoff et al., 2015).

By 2030, it is estimated that there will be 72.7 million people aged 65 years and older, compared to the 43.1 million in 2012 (U. S. Department of Commerce, 2014). In

2012, LTC nursing workforce experienced 70,000 vacant positions (AHCA, 2014). The vacancies by nurse staff role, RNs (i.e., 9,800), LPNs (i.e., 12,900) and certified nurse assistants (i.e., 47,300), coupled with the rates of turnover stated above makes evident the imperative to retain nursing staff in LTC as critical towards meeting the demands of an aging population (AHCA 2014). The results of this study may impact positive social change through an expanded understanding of the complex environment and relationships fundamental towards improving DON retention. The findings of this study may also have an indirect impact on improving nursing home nurse staff retention and the quality of care provided to residents living in LTC.

In Chapter 1, I provide a summary of the problem of DON turnover and limited tenure. In the chapter, I establish the purpose of the study as well as the research questions and hypotheses as derived from the theoretical framework of role theory and social exchange theory. In this chapter, I include a discussion of the research design; a summary and definitions of key variables; and presentation of study assumptions, delimitations, and limitations. Chapter 1 concludes by identifying the significance that DON turnover and limited tenure has for scholars and stakeholders in LTC.

Background

The federal requirement for a DON in LTC is a licensed RN. Nationally, 56% of DONs possess an associate degree (AD) and less than half of all DONs hold a specialty certification, suggestive of a DON workforce that is unprepared for the leadership competency and capacity necessary to lead a nursing workforce (Cramer et al., 2014; Decker & Castle, 2009; Holle, Sundean, Dellefield, Wong, & Lopez, 2019; Rao, 2013;

Rao & Evans, 2015; Siegel et al., 2012; Trinkoff et al., 2015). Unprepared for the accountability of clinical quality and leadership functions, the new DON experiences role conflict and role ambiguity (Rao & Evans, 2015; Siegel & Sikma, 2015; Siegel et al., 2012). Role conflict and role ambiguity have been identified as independent constructs correlating to job satisfaction, organizational commitment, and intent to leave (McGilton, Boscart, Brown, & Bowers, 2014; McGilton, Tourangeau, Kavcic, & Wodchis, 2013; Rizzo, House, & Lirtzman, 1970; Warshawsky & Havens, 2014).

Contrary to the assertion that role conflict and role ambiguity are primary influences of DON turnover, Fleming and Kayser-Jones (2008) and Rao (2013) found that a positive relationship between the nursing home administrator (NHA) and DON showed an inverse relationship on DON turnover. Alternatively, Tremblay et al. (2017) reported that meaningful relationships with peers and residents could reduce a DON's intent to leave despite a negative relationship with the NHA. Diverging from the discussion of DON relationships, Krause (2012) found a DON's organizational tenure was more predictive of the quality in that organization than previous work as a DON in another facility, suggesting organizational influences may affect DON success more than experience as a DON. The results of these studies propose DON relationships and the culture within an organization exert as much an influence on DON intent to turnover as the DON characteristics that impact role conflict and role ambiguity.

Leader-member exchange (LMX), derived from social exchange theory and grounded within role theory (Biddle, 1996), addresses the relational component of the leader-member relationship across the dimensions of mutual respect, reciprocal trust, and

interacting obligation (Graen & Uhl-Bien, 1996). Within the dimensions are the resources exchanged across the relationship: affiliation, status, service, information, goods, and money (Wilson, Sin, & Conlon, 2010). The value each participant places on a resource impacts the receiver's perception of a low- versus high-quality exchange, which may further be used in evaluating the effectiveness of the NHA/DON LMX (Matta et al., 2015). As a DON experiences role conflict and role ambiguity, understanding their perceptions within the framework of the quality of the NHA/DON LMX is essential towards improving DON tenure. The DON's perception of the LMX relationship may influence their sensitivity to high and low levels of role conflict and role ambiguity, whether the level of conflict and ambiguity is mediated by the NHA/DON relationship, and the influence on the outcomes of affective organizational commitment (AOC) and intent to stay (ITS). Conversely, Tremblay et al. (2017) suggested organizational commitment rather than commitment to the supervisor influences intent to leave, which offers another factor in the understanding of DON turnover. The DON's alignment with organizational values and commitment to improve organizational outcomes, such as nurse staffing and resident quality, may outweigh the DON's relationship with the NHA, also influencing their intent to leave.

Role preparedness, relationship with leaders, and organizational commitment have each been identified in the literature as contributing to turnover; however, I found no extant studies that assessed all of these variables in understanding the complex role of the DON in LTC. There is a gap in the literature in understanding the DON's perception of the level of role conflict and role ambiguity and LMX on AOC and ITS. Through this

study, I sought to extend knowledge regarding DON characteristics, leadership practices, and organizational culture in the LTC environment to improve DON tenure.

Problem Statement

The role of the DON is to be the visionary leader of and ensure the quality of care to those served by the LTC organization (Siegel & Sikma, 2015). The new DON perceives their role as the leader of the nursing workforce with a high level of nursing jurisdiction but soon finds 75% of their time involved in human resource functions, staffing, finance, and day-to-day operations to improve quality of care, often in an unsupportive work environment (see Kash, Naufal, Dagher, & Johnson, 2010; Rao & Evans, 2015; Siegel et al., 2012). The accountability-preparation gap (see Rao & Evans, 2015) suggests DONs are unprepared to comprehend the full scope of their role and do not have the leadership capacity due to a lack of educational preparation, certification, or industry standards for leadership development to adequately assess or respond to their situation, limiting their leadership effectiveness (Kash et al., 2010; Krause, 2012; Rao & Evans, 2015; Siegel & Sikma, 2015; Trinkoff et al., 2015). The problem is that limited leadership preparation and autonomy creates an incongruence between role expectations and actual role responsibilities, contributing to high levels of role conflict and role ambiguity, decreased job satisfaction, and increased intent to turnover (Rao & Evans, 2015; Siegel, Mueller, Anderson, & Dellefield, 2010; Siegel & Sikma, 2015).

However, supportive environments have been shown to reduce the level of DON role conflict and ambiguity (Fleming & Kayser-Jones, 2008) and DON turnover (Rao, 2013). LMX, predicated on the dimensions of respect, trust, and obligation across the

working relationship between a leader and member, is important to the discussion of role conflict and role ambiguity of the DON. The construct of LMX provides researchers with a measurement of the quality of the NHA/DON relationship in supporting the development of the DON, building leadership competency and capacity, and reducing the DON's intent to leave (Cowden & Cummings, 2012; Graen & Uhl-Bin, 1996; Mayfield & Mayfield, 2007; Rao, 2013). This conceptual link was supported by the following studies that demonstrated that DONs receive varying levels of support from organizational constituents, including the NHA, regional consultants, peers, and other management partners. Mayfield and Mayfield (2007) discovered a 10% increase in a leader's use of motivational language increased front-line nurse's ITS by 5%. Whereas, Rao (2013) found the support of the DON by the NHA through the provision of even 1 of 4 distinct components of task support was shown to reduce turnover by as much as 38%.

Conversely, the literature on organizational commitment suggested a DON's alignment with the values of the organization will reduce turnover intentions despite a negative relationship with leaders in the organization (Matta et al., 2015). Researchers have explored the complexity of the DON role and the factors contributing to turnover. There was a gap in the literature regarding the DON's perceptions of different levels of role conflict and role ambiguity as well as how LMX contributed to the DON's AOC and ITS (Gaudet & Tremblay, 2017; Siegel et al., 2012; Sin, Nahrgang, & Morgeson, 2009; Tremblay et al. 2017; Warshawsky & Havens, 2014; Wilson et al., 2010).

Purpose of the Study

The purpose of this quantitative, descriptive, comparative study was to determine if there is a difference between the levels of AOC and ITS in DONs with high versus low levels of role conflict and role ambiguity. I analyzed the mediating influence of the LMX relationship across the independent variables (i.e., role conflict and role ambiguity) and the dependent variables (i.e., AOC and ITS). I also considered additional mediating, moderating, and control variables that may also influence DON turnover.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study:

Research Question 1: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict?

$H_0$1: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

$H_1$1: There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

Research Question 2: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity?

> $H_0$2: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.
>
> $H_1$2 There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.

I measured the variables by the following instruments:

- Role Questionnaire: The Role Conflict subscale (RCS; i.e., eight items) was used to measure the DON's agreement or disagreement with statements describing the incongruence of expectations by self and others, as developed by Rizzo, Lirtzman, and House (1970).
- Role Questionnaire: Role Ambiguity subscale (RAS; i.e., six items) was used to measure the DON's agreement or disagreement with statements describing the clarity of role expectations, as developed by Rizzo et al. (1970).
- Leader-Member Exchange Scale, 7-Item Version (LMX-7; i.e., seven items) was used to measure member (i.e., the DON) agreement or disagreement of

the index of quality for the dimensions of mutual respect, trust, and reciprocal obligation of the leader-member relationship (see Graen, Novak, & Sommerkamp, 1982).

- Affective Commitment Questionnaire (ACQ; i.e., five items) was used to measure the DON's socioemotional attachment to the organization (see Allen & Meyer, 1990; Postmes, Tanis, & de Wit, 2001)
- Intentions to Stay Scale (ISS; i.e., seven items) was used to measure an employee's positive and negative attitude of expected continuance with the organization (see Mayfield & Mayfield, 2007).

Theoretical Framework for the Study

I utilized role theory and social exchange theory as described by Rizzo et al. (1970) and Biddle (1996), respectively, as the theoretical framework of this study, guiding my understanding of leadership in complex organizations. Role theorists have described that as the DON enters the role, their expectations of self and others as well as the outcomes of actions and behaviors influence the DON's leadership effectiveness and job satisfaction (see Rizzo et al., 1970). Rizzo et al. identified, through factor analysis, that role conflict and role ambiguity were independent constructs, which I also kept as separate constructs in my study.

LMX, a component of social exchange theory, established that relationship building and resource exchanges influence the quality of the relationship among supervisors and subordinates (see Graen & Uhl-Bien, 1995). In the LTC environment, the NHA/DON relationship has been identified as a significant positive predictor of DON

turnover (Fleming & Kayser-Jones, 2008; Rao, 2013). In this study, I used LMX to assess a DON's perception of the quality of the NHA/DON relationship in the dimensions of mutual respect, reciprocal trust, and interacting obligation in order to understand the implications on a DON's turnover intentions. Turnover and tenure of the DON are predicated on DON role expectations, perceptions, and support of self and those within the nursing home environment (Fleming & Kayser-Jones, 2008; Graen & Uhl-Bin, 1995; Rao, 2013). Role theory and LMX offered paths with which to describe a DON's decision-making in the intent to turnover or ITS in an organization. Role theory and LMX will be described in greater detail in Chapter 2.

Nature of the Study

In this study, I used a quantitative, descriptive, comparative single-stage survey design to examine the DONs' perceptions of levels of role conflict, role ambiguity, and LMX on AOC and ITS (see Creswell & Creswell, 2018; Mayfield & Mayfield, 2007; Siegel et al., 2012; Wilson et al., 2010). Quantitative research is consistent with understanding the relationship of variables using a theoretical framework to ground the study (see Creswell & Creswell, 2018). The methodology of convenience sampling was enlisted by inviting participation from all DONs in Centers for Medicare and Medicaid Services (CMS) Region 8 (see Fowler, 2014). In this quantitative, descriptive, comparative study, I used role theory and social exchange theory to understand the DONs' perceptions of their levels of role conflict and role ambiguity as well as the influence of LMX on a DON's AOC and ITS.

The key study variables included the predictor variables of role conflict and role ambiguity to predict the outcome variables of AOC and ITS for LTC DONs in the CMS Region 8 in the United States. LMX was a mediating variable proposed to reduce role conflict and role ambiguity, thereby increasing AOC and increasing ITS (see Cowden & Cummings, 2012; Fleming & Kayser-Jones, 2008; Han, Han, An, & Lim, 2015; Mayfield & Mayfield, 2007; Rao, 2013). The covariates included demographic and environmental variables. The demographic variables were DON (a) gender, (b) age, (c) highest level of education attained, (d) years of employment as RN, (e) years of employment as DON, (f) years in current DON role, (g) previous employment as DON in other facility, (h) internal hire from current facility directly into DON role, (h) specialty certification, (i) professional organization membership, and (j) the state where respondent is employed. The environmental variables were (a) geographic area, (b) facility ownership, and (c) facility size.

I collected the research data through a cross-sectional, anonymous, online survey consisting of a demographic and environmental questionnaire and four validated and reliable survey instruments (see Creswell & Creswell, 2018). The instruments were the Role Questionnaire with the subscales of RCS and RAS, LMX-7, ACQ, and ISS. Descriptive and inferential data analysis were conducted using Statistical Package for the Social Sciences (SPSS), V. 25. The statistical tests used were Pearson correlation, one-way MANCOVA, and multivariate linear regression.

Definitions

The following terms are defined for their use in this study. A full explanation and meaning are discussed in greater depth in Chapter 2.

Affective organizational commitment (AOC): The DON's socio-emotional connection to the organization, desire to go above expectations, and contribute beyond expectations to support the organization (see Allen & Meyer, 1990).

Director of nursing (DON): A RN designated by the facility to serve in the role full time or shared among two individuals where roles and responsibilities are clearly defined (Centers for Medicare and Medicaid Services, 2018).

Intent to leave: A DON's voluntary intention to leave an organization; the negative behavioral intentions to ITS (see Mayfield & Mayfield, 2007, Rao, 2013).

Intention to stay (ITS): The DON's positive affective (i.e., feeling) state of continuance with the organization (see Mayfield & Mayfield, 2007).

Leader-member exchange (LMX): The relationship between a leader (i.e., supervisor) and member (i.e., subordinate) establishing mutual respect, reciprocal trust, and interacting obligation within frequency of the exchange, the length of the relationship, and the quality of the exchange of resources (see Graen & Uhl-Bien, 1995; Wilson et al., 2010).

Nursing jurisdiction: The decision-making authority and autonomy in leading the nursing workforce for LTC (see Rao & Evans, 2015).

Role ambiguity: The lack of clarity of role expectations with an understanding of ramifications when expectations are not met (see Rizzo et al., 1970).

Role conflict: The incongruence of expectations of self and others based on standards of role performance, especially when multiple roles are expected from multiple constituents (see Rizzo et al., 1970).

Role enactment: The undertaking of the DON role by a nurse new to the environment based upon previous understandings of role needs and expectations (see Biddle, 1986; Rizzo et al., 1970).

Task support: "Assistance accomplishing a task, exchange of ideas, positive feedback and evaluation, and joint work on projects" (see Rao, 2013, p. 111).

Assumptions

I made three assumptions concerning this study. The first assumption was that DONs' desire an understanding of role conflict and ambiguity in their role transition. As time progresses, so does the desire to control the effect that unending conflict or ambiguity brings so that DONs can be successful in their position (see Fleming & Kayser-Jones, 2008; Kath, Stichler, Ehrhart, & Sievers, 2013; Siegel & Sikma, 2015; Siegel et al., 2012). I also assumed that the DON desires to be supported by the NHA but may not understand how to advocate for professional development strategies and opportunities (see Rao, 2013; Rao & Evans, 2015; Siegel et al., 2015). My final assumption was that nurses seek a DON role because they desire to make a difference in the lives of others through leadership, identifying with a specific organizational or job role in which there are shared values and goals (see Gaudet & Tremblay, 2017; Krause, 2012; Siegel & Sikma, 2015; Tremblay et al., 2017).

I derived these assumptions from the literature in the review of DON characteristics and the routes with which a DON enters the role. Additionally, researchers demonstrated the context where relationships and resource exchange supported or limited a member's role effectiveness, influencing job satisfaction and turnover intentions (see Matta et al., 2015; McGilton et al., 2013; Rao, 2013; Sin et al., 2009). The literature supported that an institution's hiring practices for the DON role can enhance or inhibit a nurse's successful transition in a single organization or across organizations (see Fleming & Kayser-Jones 2008; Siegel & Sikma, 2015). The assumptions made were imperative in establishing the new knowledge that could be gained through my study in understanding a DON's perception of levels of high and low role conflict, role ambiguity, and LMX on AOC and ITS.

Scope and Delimitations

I chose a quantitative, descriptive, comparative design over a qualitative or quasi-experimental design to align with the research questions and hypotheses as well as in consideration of costs associated with data collection and sampling (see Creswell & Creswell, 2018). Creswell and Creswell (2018) instruct that the survey design is appropriate when the researcher is interested in understanding the attitudes and perceptions of a study population. Additionally, as guided by Creswell and Creswell, survey research, while not able to be defined as causal relationships, allows researchers to infer findings to other populations. A qualitative design would have been cost prohibitive to achieve a substantial sample size. This study was developed to examine the findings from past qualitative researchers (i.e., Fleming & Kayser-Jones, 2008; Siegel et al., 2012,

Siegel et al., 2015). Finally, this study was not conducive to a quasi-experimental approach because this study did not include an intervention and, therefore, did not require control and intervention groups.

The scope of the study was to examine personal, environmental, and organizational characteristics on the outcome of DON ITS. I sought to gain the perspectives of a DON's experience of high versus low levels of role conflict, role ambiguity, and LMX on AOC and ITS. The study population was nurses employed in the DON role in CMS Region 8 (i.e., Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming). Informational and consent materials instructed participants on inclusion and exclusion criteria for the study and the time frame for online survey completion.

Theorists have defined organizational role theory and social exchange theory using a variety of constructs. My selection of the instruments to study DON role conflict, role ambiguity, and LMX was influenced by the research literature. As described by Biddle (1986), role theory is framed through five distinct perspectives: (a) functional, (b) symbolic, (c) structural, (d) cognitive, and (e) organizational. In the functional perspective, Biddle maintained that all constituents understand and expect a similar goal within the defined social system. The literature on DON turnover suggest role conflict and role ambiguity arose from a limited understanding of role requirements and expectations of self and others (Rao, 2013; Siegel et al., 2010); therefore, the definition did not align with the intent of this study. Biddle further described the symbolic interactionist perspective in which each participant occupied a role within a system, the role occupant developed self-identify from role enactment and the outcomes of behavior.

I did not design this study to address the DON perceptions of leadership effectiveness; therefore, this perspective did not align with the study design. Biddle's definition of structural perspective asserted roles is a set of social structures with minimal variation where participants interact and determine environment and relational connections. The design of this study was centered on the DON's interaction with the NHA and the organization, not the structure of the system itself; therefore, this perspective was not considered as a theoretical framework for the current study. The cognitive perspective, discussed by Biddle, asserted that the learning by the role occupant of an association between expectations and behavioral actions that change over time. Similar to emotional intelligence concepts, cognitive role theory considers the role occupants' perception of self in shaping future behaviors and actions in relation to the perceptions of others (Biddle, 1986). My study was not designed to address DON self-awareness or emotional intelligence; therefore, cognitive role theory was not a suitable fit for this study. I selected organizational role theory as the perspective guiding this study because it addresses the role occupant's behaviors and outcomes in determining how to identify and achieve the expectations from multiple constituents: self, supervisor, and subordinates (see Biddle, 1986). The DON functions in an interacting relationship with persons above, parallel, and below them in the hierarchical environment. Role conflict and role ambiguity, the key variables for the current study, result from the incongruence of these expectations, a central component to this study.

Graen and Uhl-Bien (1995) described the dimensions of LMX differently than that of Sin et al. (2009). Sin et al. defined the dimensions of LMX as contribution,

loyalty, affect, and professional respect. These constructs address the building of a mutually satisfying relationship over time within LMX, whereas Graen and Uhl-Bien and Matta et al. (2015) contended the LMX working relationship is fundamental in understanding the member's perspective of quality and agreement. In consideration of the high rates of DON turnover and tenure, for the study purpose and design, I utilized the dimensions of respect, trust, and obligation within the working relationship (see Graen & Uhl-Bin, 1995; Matta et al., 2015) rather than the evolution of friendship described by Sin et al..

I surveyed the DONs' perceptions for the LMX construct. LMX-7 was designed to evaluate the congruence of the leader and members' ratings of quality of the relationship (see Graen et al., 1982); however, for this study, the considerations of cost, feasibility, as well as findings from Matta et al. (2015) suggested the member's perception of quality is the primary predictor of satisfaction and intent to leave. Issues with this decision are addressed in Chapters 4 and 5 of this study.

The defined population was all DONs in CMS Region 8, a participant pool of 640 that accounted for one DON employed per nursing facility having 24/7 primary responsibility. I did not survey any participants outside of CMS Region 8. The self-administered survey requested that the nurse employed as the organization's primary DON respond to survey questions. The anonymity of the online survey method cannot control for those who answered the survey inappropriately. Generalizability to other regions was limited due to the rural expanse and low nurse population for several states comprising CMS Region 8. However, the findings of this study may allow inferences to

be made to inform leaders and stakeholders of the relational and organizational implications for improving DON turnover in other regions of the United States.

Limitations

Addressing limitations within a research method and design are essential to ensuring the validity of the results of the study. Limitations arising from the quantitative, descriptive design, included the regression of outliers with extreme ratings, such as the extended professional experience of the DON, and instrumentation (see Creswell & Creswell, 2018). There was an opportunity for participants to misinterpret survey questions and respond in manners not expected. I addressed the evaluation of extreme outliers during data analysis and report on this topic in Chapter 4. Finally, internal validity was addressed by selecting instruments that had been previously assessed for construct and content validity, aligning with study variables and the research questions and hypotheses (see Frankfort-Nachmias, Nachmias, & DeWaard, 2015). External validity was addressed using statistical parameters establishing study data collection, analysis, and interpretation to uphold scientific credibility. I employed effect size and power analysis to calculate the sample size needed for data analysis. The survey was routed via individual e-mails to 640 DONs or alternatively to the NHA requesting to be forwarded to the DON, recognizing not all e-mail addresses can be assured to be accurate or guaranteed an adequate response rate from those receiving the survey. A final limitation of this study was that of generalizability. As a result of using a convenience, sampling method, participation in the survey was self-reported and voluntary, limiting the

ability to state with confidence the study findings are representative of other populations (see Fowler, 2014).

Researcher bias must be explicitly described then minimized through the statistical procedures of the study design (see Frankfort-Nachmias et al., 2015). My interest in understanding the relationships across demographic and environmental variables along with the predictor variables (i.e., role conflict and role ambiguity), the mediating variable (i.e., LMX), and the outcome variables (i.e., AOC and ITS) grew over the past several years of reviewing the literature and synthesizing previous research on DON turnover and tenure. To employ the quantitative, cross-sectional, survey research design in this study, I used self-reported psychometric instrumentation and data analysis of inferential and statistical procedures with a priori measurements, which had been determined to be the most appropriate to reduce bias and to answer the research questions (see Frankfort-Nachmias et al., 2015).

Significance

DON turnover in LTC organizations has been shown to increase nurse staff turnover and decrease the quality of care (see Castle & Lin, 2010; Trinkoff et al., 2015). DON and nursing staff turnover also correlates with increased costs from the associated increase in staffing agency utilization to fill open positions (Cramer et al., 2014). In a study evaluating RN retention, Hunt et al. (2012) identified the correlation of DON tenure across low-medium-high RN retention homes. The researchers found that the mean DON tenure across all homes was 35.8 months. However, homes with high RN

retention observed a 3 times greater DON tenure (i.e., 54.3 months) compared to low RN retention homes (i.e., 17.3 months).

Similarly, in a study evaluating DON current job tenure compared to DON role experience, Krause (2012) found DON current tenure was predictive of the nursing home's quality measure rating. Further, Siegel et al. (2012) and Fleming and Kayser-Jones (2008) reported the role and tenure of the DON were primarily determined by and through the NHA/DON job expectations and relationship. A negative NHA/DON relationship would supersede the inherent success of a new DON following a successful DON (Fleming & Kayser-Jones, 2008). The efforts highlighted in the IOM's (2011) *Future of Nursing: Leading Change, Advancing Health* is undisputed in the argument for advancing educational levels to improve quality and leadership in the healthcare environment. However, DONs educated at the associate, bachelor, or higher degrees are equally effected in their leadership performance, and those with a bachelor's degree or greater have higher rates of turnover than their AD peers (see Decker & Castle, 2009; Kash et al., 2010; Siegel et al., 2012). Therefore, advancing DON educational and professional preparation cannot be the sole factor in analyzing DON tenure.

An analysis of organizational elements is also needed to understand this complex and multifaceted DON role (see Siegel & Sikma, 2015). Understanding the complexity of LMX relationships to the DON role that may contribute to turnover is imperative for organizations, industry leaders, and policymakers to impact positive social change. Researchers have asserted that a DON's length of time in an organization, along with relationships within the organization, impact RN nurse retention, quality of care, and the

DON's intent to turnover (see Fleming & Kayser-Jones, 2008; Krause, 2012; Siegel & Sikma, 2015). There was a critical need to understand DONs' perceptions of levels of role conflict, role ambiguity, and LMX on AOC and ITS to strengthen role congruency and leadership effectiveness. If stakeholders are able to impact DON tenure, there is the potential to improve nurse staffing and poor quality associated with the high rates of DON turnover.

The results of this study contributed to positive social change through the examination of the DON's level of role conflict and role ambiguity as mediated by LMX on AOC and ITS. Krause (2012) and Siegel et al. (2012) argued that improving DON tenure has a reciprocal correlation to staff nurse tenure and quality, which are components essential in caring for an aging population. The LTC industry cannot continue to ignore the statistics indicating one third of the DON workforce turns over annually (Holle et al., 2019; Siegel & Sikma, 2015) and that DONs, on average, remain in an organization for less than 3 years (Hunt et al., 2012). Through the results of this study, the LTC industry and stakeholders may finally be able to impact positive social change by understanding the DON's complex environment and relationships fundamental to improving DON tenure, thereby improving nurse staffing and the quality provided to the residents living in LTC.

Summary

The DON in LTC is the nurse leader responsible for the vision and quality in the nursing home. High rates of turnover and limited tenure of the DON create an unstable environment that results in reduced consistency of nursing staff and quality of care for

those using LTC services (see Castle & Lin, 2010; Trinkoff et al., 2015). Determining the characteristics of the DON that may contribute to a DON's perceptions of role conflict and role ambiguity are essential in understanding the role of the DON. Still, the levels of role conflict and ambiguity alone do not fully describe why a DON leaves an organization. Relationships between the NHA and the DON as well as the DON's connection to the organization may provide additional insight in understanding a DON's perception of support, growth, and leadership effectiveness impacting organizational commitment and ITS (Fleming & Kayser-Jones, 2008; Rao & Evans, 2015; Siegel & Sikma, 2015; Siegel et al., 2012; Tremblay et al., 2017). The study variables, grounded in organizational role theory and social exchange theory, provided routes for me to examine DONs' interactions in the environment and their expectations of self and others, influencing the DON's ITS.

In this chapter, I provided the background of DON turnover, the problems arising from DON turnover, the study purpose, research questions, hypotheses, and the theoretical frameworks of organizational role theory and social exchange theory. This chapter also included a discussion of the nature of the study, a brief summary of the quantitative descriptive approach along with key variables, definitions, assumptions, scope and delimitations, limitations, and significance of the study. In this study, I sought to describe the influence of DON characteristics, the relationships within the LTC facility, and the organizational characteristics impacting the DON's intention to stay.

In Chapter 2, I will explain the theoretical frameworks for the study. I will also provide an analysis of the key variables of role conflict, role ambiguity, LMX, AOC, and

ITS. Chapter 2 includes with a discussion of the significance of the study on positive social change towards understanding the complex role of the DON, thereby reducing DON turnover and improving DON tenure.

Chapter 2: Literature Review

Introduction

Each year, one third of all DONs in the United States will leave their role, and for the majority of those who stay, their tenure will be less than 3 years (Hunt et al., 2012; Siegel & Sikma, 2015). The high rates of turnover create instability within each nursing home. Direct correlations have been found among DON tenure and RN tenure, the use of temporary agency staffing for licensed and nursing assistant positions, and the quality of care provided in nursing homes (Hunt et al., 2012; Krause, 2012; Trinkoff et al., 2015). The purpose of this study was to understand the difference between LMX, AOC, and ITS in DONs with high versus low levels of role conflict and role ambiguity.

Turnover of the DON workforce continues to occur despite the call to action to increase the number of nurses educated at the baccalaureate level and to improve the competency of nurses in leadership positions (Fox, 2013; IOM, 2011; Siegel & Sikma, 2015; Siegel et al., 2012). Researchers have argued DON characteristics, such as an AD education, lack of specialty certification, and limited experience in nursing homes, is restricting leadership competency and capacity central to the high rates of turnover (Kash et al., 2010; Krause, 2012; Rao & Evans, 2015; Siegel & Sikma, 2015; Trinkoff et al., 2015). Others have contended the nursing home culture and the nursing home industry's focus on meeting regulatory requirements is impeding the improvements of advancing education, lifelong learning, and professional organization participation, resources necessary to support those in the DON role (Han et al., 2015; Hunt et al., 2012; Siegel et al., 2012). Still, others have proposed the DON's relationship with the NHA is the most

significant predictor of DON intent to leave (Decker & Castle, 2009; Rao, 2013). The link between role preparedness, relationships within the organization, and the congruence of values between the employee and organization were factors discussed in the turnover literature and exhibit potential in understanding the decision-making processes of the DON on their ITS in an organization.

In Chapter 2, I describe the literature search strategies and the utilization of role theory to address DON turnover and limited tenure. Chapter 2 also contains an analysis of the key variables of the study, which include DON characteristics contributing to role conflict and role ambiguity, LMX, AOC, and ITS. The chapter concludes with a summary of the significance this study and what the findings may contribute towards improving the conditions of the DON, the staff of the LTC organization, and the residents and families impacted by the negative outcomes created when DON turnover and limited tenure continue at these high rates.

Literature Search Strategy

I searched the following databases for information related to this dissertation: CINAHL and Medline Combined search, ProQuest Central, Dissertations & Theses @ Walden University, Thoreau Multi-Databased Search, and PsycTESTS. Key words searched in the databases include *director of nursing*, *DON, administration, nursing home*, *long-term care, turnover, intent to leave*, *intent to stay*, *role theory, role conflict, role ambiguity, role stress, role strain, retention, affective organizational commitment, organizational commitment, leader-member exchange, job satisfaction, education,* and

certification. Articles were also identified during the review of the literature and accessed via Google Scholar and the databases referenced above.

I employed limitations for publication date ranges to evaluate the literature published between 2014 and 2019 for the study variables. Additional literature was located outside the date range as identified from within the current literature for frequently cited authors, articles on theory development, and studies specific to LTC nurse turnover, the DON position, and the variables of AOC and intent to leave. Seminal works from the IOM (2011) and American Nurses Foundation (1985), as cited in Siegel et al. (2010), existing before the date search parameters were included to provide substantive background to the complex and unresolved issue of DON turnover. Articles were evaluated for relevance and quality contributing to the development of the study.

Theoretical Foundation

The use of theory guides researchers and readers toward a shared understanding of the foundation with which a study is contrived (Gaudet & Tremblay, 2017). Without such foundations, the consistency of the research design and methodology become encumbered with aberrant and incongruent constructs, limiting the significance of the study and the validity of the data. Theory generated through the review of literature of the DON role provided the background to understand the relationships across studies in advocating for the dedicated leaders caring for our aging population.

Role Theory

Role theory is grounded in social sciences and describes the social interactions of individuals and subordinate's role expectations (Martin & Wilson, 2005). Role theory

posits that expectations of the role occupant are established through behaviors and outcomes deemed appropriate by organizational and personal beliefs (Biddle, 1986). Whereas, organizational role theory, attributed to Park, Kahn, and Linton, further distinguishes role enactment and behaviors as guided by the role occupant's perceived expectations of constituents within the social structures of the organization (Biddle, 1986; Brookes, Davidson, Daly, & Halcomb, 2007; Martin & Wilson, 2005; Rizzo et al., 1970). Another conceptual link of organizational role theory is that as the role occupant engages in interaction with others, behaviors are learned as a result of congruency with organization/constituent values, the role occupant's knowledge and skills, and the consequences of the actions of the role occupant (Martin & Wilson, 2005; Rizzo et al., 1970). Researchers of organizational role theory have contended that complex organizations, such as those in healthcare, espouse multiple levels in the chain of command, contributing to high levels of role conflict and role ambiguity (Rizzo et al., 1970). Healthcare organizations, such as LTC in which the DON reports to the local NHA, however, is responsible to front-line nurses, creates an opportunity for incongruent role tasks and demands, causing the DON to compete between differentiating expectations of behaviors and actions.

As nurses enter the DON role, they are challenged by their own perceptions of role expectations based upon previous experience with leadership, perceptions of the nursing home industry, previous experience as a DON, and the understanding of the role within the organization's culture (Hunt et al., 2012; Kash et al., 2010; Krause, 2012; Siegel & Sikma, 2015; Siegel et al., 2012; Tremblay et al., 2017; Tummers, Groeneveld,

& Lankhaar, 2013). As the DON engages in role enactment, the incongruent expectations of self and others (i.e., role conflict) along with the lack of clarity of role expectation and the ramifications when these expectations are not met (i.e., role ambiguity) lead to job dissatisfaction. Limited leadership competency and capacity prevents the DON from initiating nursing jurisdiction to improve the role leading to the significant rates of turnover and short tenures (Hunt et al., 2012; Siegel & Sikma, 2015; Siegel et al., 2010).

Previous researchers have utilized role theory to study specific nursing populations (Brookes et al., 2007) as well as the constructs within role theory, such as workplace stress (March, 2011) and role stress (Han et al., 2015). These studies provided insight into the complex nature of role expectations that may be experienced by a DON. Brookes et al. (2007) discussed the implications of role conflict and role ambiguity in the changing healthcare roles and responsibilities of community nurses, finding that the interprofessional collaboration with physicians along with the expanding scope of nursing roles led to confusion and uncertainty in the nursing staff resulting in role stress and role strain. For the current study, I posited that as the LTC DON is challenged to meet the demands of increased acuity and care needs of an aging population, the unprepared DON is likely also to exhibit high levels of role conflict and role ambiguity in the effort to support quality and cost efficiency within existing resources (Siegel et al., 2015). March (2011) conducted a study to understand the relationship between workplace stress and intent to leave for DONs in Tennessee and determined that among the variables of workplace stress, job satisfaction, organizational support, and personal characteristics, only general job satisfaction was a significant predictor of the DON's intent to leave. The

results of March's study suggest other factors within the DON role and the nursing home environment may have an impact on the DON's intent to leave the organization.

Kath et al. (2013) evaluated workplace stress in nurse managers in 36 southwest U.S. hospitals. The researchers identified role overload, organizational constraints, and role conflict as the top three predicators of hospital nurse manager stress. The researchers described the role of the hospital nurse manager similar to the role expectations of the DON, which is as an advocate for the nursing staff to positively impact the work environment and support the provision quality care for those requiring services from the organization.

Finally, in a study evaluating burnout and organizational commitment on the turnover intentions of nurses in Korea, Han et al. (2015) utilized role theory to distinguish the independent constructs of role conflict and role ambiguity. Their findings showed role conflict and role ambiguity each had a positive correlation to burnout, and burnout had a positive correlation to turnover. Whereas, role ambiguity reduced organizational commitment, organizational commitment was found to negatively affect turnover (Han et al., 2015). The authors also found role conflict showed no effect on organizational commitment. Han et al.'s overall finding that organizational commitment mediates role conflict and role ambiguity and negatively influences turnover intentions provided a foundation with which to study similar variables in the DON population.

In addition to traditional role theory where *position* defines expectations, the DON also functions through relationships within an organization. Derived from

traditional role theory, LMX provided the second construct of the theoretical framework I used to understand the complex role of the DON in the LTC environment.

Leader-Member Exchange

LMX was derived from the theoretical foundations of social exchange theory within traditional role theory (Sin et al., 2009). Graen and Uhl-Bien (1995) departed from the ascribed roles that the leader and member perform in Park, Kahn, and Linton's traditional role theory and moved towards the formation of LMX partnerships quintessential in social exchange theory. Graen and Uhl-Bien suggested leadership-making is built upon the foundation of relationships where time and leader-member characteristics influence the development of the relationship, not merely role status or position. Graen and Uhl-Bien posited that, as time passes, the leader-member relationship transforms from strangers to acquaintances. As the relationship progresses further across time, it advances into mature working relationships that stabilize into routine expectations of each other's role (Graen & Uhl-Bin, 1995). The NHA/DON relationship has been identified in the literature as a critical factor in DON turnover (Fleming & Kayser-Jones, 2008; Krause, 2012; Rao, 2013). These researchers indicated the DON's perception of the LMX relationship, current knowledge of organizational culture, and active support from the NHA all contribute to a DON's decision to leave or remain in an organization. For the NHA/DON relationship to progress, several characteristics of the relationship must exist and are discussed in the key variables section of this paper. The theoretical framework illustrating the relationship of the predictor variables of role conflict and role

ambiguity on the outcome variables of AOC and ITS and the mediating effect of LMX are presented in Figure 1.

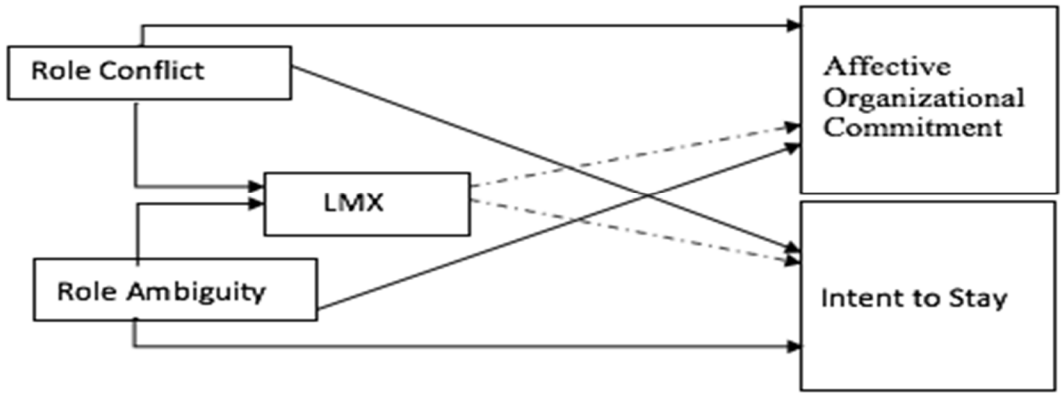

Figure 1. Theoretical framework diagram depicting relationships among study variables.

Choice of Theory

I selected role theory and social exchange theory as the theoretical foundations for this study because researchers have emphasized the DON role responsibilities and preparedness are limited by regulatory and industry complacency regarding the DON's educational and leadership preparation (see Kash et al., 2010; Rao & Evans, 2015; Siegel & Sikma, 2015). Rao and Evans (2015) referred to the accountability-preparation gap in which the DON is unaware of and unprepared to improve professional nursing jurisdiction within their role of DON. Others have suggested the LMX relationship is pivotal to the success of the DON (Decker & Castle; 2009; Rao: 2013) I sought to understand the difference between LMX, AOC, and ITS in DONs with high versus low levels of role conflict and role ambiguity.

Previous researchers have produced results that evaluated the DON role, DON nursing jurisdiction, DON turnover, and the quality in nursing homes resulting from DON tenure. However, I found no studies that had examined DON perceptions of their levels of role conflict and role ambiguity and the variables of AOC and intent to leave mediated by the LMX relationship of the DON with the NHA. As indicated above, researchers have identified a direct influence of the NHA/DON relationship on DON turnover; however, these studies were unable to provide representative research correlating the variables in this study with DON turnover. The results of this study add to the literature by extending research on the individual variables of role conflict, role ambiguity, LMX, AOC, and ITS for the role of the DON in LTC.

Literature Review Related to Key Variables

Role Conflict and Role Ambiguity

The DON role is enacted when the nurse enters the position (see Rizzo et al., 1970). For the unprepared DON, this transition is often an overwhelming time, where high levels of role conflict and role ambiguity are not recognizable during day-to-day activities, and is perceived as failing leadership performance in an unsupportive environment (see Hunt, Corazzini, & Anderson, 2014; Rao & Evans, 2015; Siegel et al., 2012; Siegel et al., 2015). *Role conflict* was defined as the incongruence of role expectations by self and others based on standards of role performance especially when multiple roles are expected from multiple constituents (see Rizzo et al., 1990). *Role ambiguity* was defined as the lack of clarity of role expectations with an understanding of ramification by others when expectations are not met (see Rizzo et al., 1970). The

literature pointing to regulatory and industry requirements of the DON role, the characteristics of the DON, and organizational attributes which generate role conflict and role ambiguity for the DON are discussed in the following sections.

Director of nursing role requirements and characteristics. The role of the DON is to be a visionary leader in the LTC organization to guide the nursing workforce in the provision of quality care for the residents requiring LTC services. The requirement for the DON position is a licensed nurse, otherwise known as an RN (Centers for Medicare & Medicaid Services (CMS; 2018). The minimum requirement of RN is an AD, a clinical based degree with limited exposure to leadership domains or population-specific clinical experience, such as geriatric competencies (see Siegel et al., 2012; Rao & Evans, 2015). Researchers and those in academia contend the AD does not adequately prepare nor provide tools for the DON to succeed in the LTC industry (see Kash et al., 2010; Rao, 2013; Rao & Evans, 2015; Siegel, Bettega, Bakerjian, & Sikma, 2018; Siegel & Sikma, 2015; Trinkoff et al., 2015). Despite the assertion that an AD is not sufficient for a leadership role, nationally more than half (i.e., 56%) of LTC DONs hold an AD (see Holle et al., 2019; Rao & Evans, 2015). Several qualitative studies were conducted addressing a DON's role preparedness. Siegel and Sikma (2015) indicated that AD DONs do not fully understand the complex role they are undertaking, resulting in not knowing what questions to ask or what resources to request to improve their role understanding and performance. While, Siegel et al. (2012) described the effect of role conflict and role ambiguity in the DON's transition into role enactment. These researchers indicated that the industry standards of the DON role comprised clinical expertise and knowledge,

administrative functions, management of the nursing workforce, and leadership. In their analysis of responses from 29 current and former DONs, the actual day-to-day functions of these nurse leaders primarily encompassed finance, human resources, clinical needs, development of staff, and DON professional development along with regulatory compliance (see Siegel et al., 2012). The researchers found that DONs responded to the needs of the facility, the preferences of the nursing home administrator, and the needs of DON themselves as the primary factors in how the DONs spent their time versus what others in the role may expect of them. This incongruence of role expectation and role enactment is conveyed by Rizzo et al. (1970) who recognized the role occupant can be compromised by moral or value laden contradictions between the individual and the organization. Therefore, while the DON perceived the new role as autonomous decision-maker and the advocate of nursing staff and the quality of care provided in the organization, in reality the DON often found an unsupportive work environment in which leadership effectiveness is not able to be achieved or worsened over time culminating in turnover of the DON position (Rizzo et al., 1970). Similarly, Rao and Evans (2015) found upon role enactment, DONs found 75% of their time was spent on human resource functions (i.e., filling vacant shifts, addressing staffing issues and managing the day-to-day operations of quality and nursing skill) leaving little time for the development of nursing leadership and jurisdiction over nursing practice. Further, Siegel et al. (2015) found a DON with 5 years of experience verbalized developing tactics throughout their years of tenure in which to transition from the day-to-day operations towards the strategic

development for advocacy and problem-solving to attain resources necessary for the provision of quality care.

Role preparedness is significant for the DON who is unable to realize their role as the visionary leader and quickly becomes disillusioned because of high levels of role conflict and role ambiguity, decreased job satisfaction, and ineffective leadership performance (see Siegel et al., 2010). DON hiring practices that focus on clinical expertise, rather than leadership competency; as well as the limited role preparedness, contributed to poor performance and dissatisfaction early in the DON's role transition (Siegel & Sikma, 2015). Education, certification, and experience are all characteristics of the DON role that have been debated in the literature (Rao, 2013; Siegel et al., 2010, Siegel et al., 2012). The next section discusses each of these characteristics and their impact on the DON's role preparedness.

Education. Educational preparation of the DON has been at the forefront of advocacy groups since Lodge's seminal work with the American Nurses Foundation in 1985 (as cited in Siegel et al., 2010). Since that time, the IOM along with numerous researchers have supported advanced education to improve the quality of care in health care settings (see Aiken, Clarke, Cheung, Sloane, & Silber, 2003; Fox, 2013; Holle et al., 2019; IOM, 2011; Kash et al. 2010). Nevertheless, the LTC industry and regulators continue to uphold the AD as an adequate degree for the DON role (CMS, 2018).

The lack of a mandate for a bachelor of science in nursing (BSN) educational preparation of a DON demonstrates the lack of consensus among stakeholders (i.e., academia, regulators, and organizations) on hiring practices for the DON role (see Siegel

& Sikma, 2015). The literature pointed to a variety of factors that impact the lack of progress in the educational mandate discussion. Organizational leaders argued the BSN requirement would limit the pool of applicants in an already sparse field (see Fox, 2013; Siegel & Sikma, 2015). Fox (2013) found few BSN students showed interest in LTC due to limited positive clinical experiences in the LTC environment. Fox also asserted that unless nursing instructors provided meaningful clinical rotations and role-modeled the importance for the care of the aging population, few students would perceive the nursing home as a preferred work environment. Fox also indicated that only approximately 50% of BSN programs focused on geriatric clinical competency, leadership competency, and development skills. Therefore, whether the BSN or AD DON succeeded in these skills was dependent upon the internal resources and support provided at the individual LTC organization, as well as the DON's own intrinsic motivation for professional development; and not as a result of educational attainment (see Hunt et al., 2014; Krause, 2012; Rao, 2103; Rao & Evans, 2015; Siegel & Sikma, 2015; Siegel et al., 2012). When the DON was unprepared to lead the nursing workforce or provide clinical oversight, role stress impeded the DONs job performance (see Krause, 2012; Rao, 2013; Siegel et al., 2012. While the BSN curriculum provides the beginning foundation of leadership education, there was limited opportunity for the BSN student to apply the leadership principles (see Fox, 2013). As a result, Fox asserted that leadership competency was not demonstrated within the clinical experience. Therefore, while BSN students may have an understanding of leadership principles, the BSN DON is no more competent than an AD; instead learning this capacity through on the job application (see Siegel et al., 2018;

Siegel et al., 2012; Trinkoff et al., 2015). Siegel et al. supported the finding through the qualitative statements from the BSN and master of science in nursing (MSN) DONs from the study. The researchers indicated that despite the DONs in the study being more highly educated than the nationally representative group, they were equally vulnerable to the negative impact of role preparedness as an AD DON.

Evidence across industry and academia supported the contention that a BSN improved the quality of care and the tenure of front-line nursing staff, while others found the increased rates of turnover of the BSN DON limited organizational change in hiring practices (see Aiken et al., 2003; Fox, 2013; Trinkoff et al., 2015). These researchers also found a correlation across DON tenure, RN tenure, and quality of care impacting an organization's decision-making. Aiken et al. (2003) demonstrated the impact a BSN degree had for improving the quality of care at the bedside in the acute care setting. Recognizing the impact improvements in quality of care could bring to the LTC industry was important. However, generalizing quality of care at the bedside, to a BSN in order to produce leadership competency and capacity, has not been demonstrated in the literature (see Aiken et al., 2003; Trinkoff et al., 2015). In contrast, Holle et al. (2019) investigated the perceptions of advancing education on quality in an organization of DONs from Connecticut. Holle et al. found, that while advancing education was commonplace in acute care settings, most DONs in nursing facilities did not see the value to self or their organization, in the education-quality debate. In Holle et al., study of the DON's who indicated they would pursue advancing their education, the primary reason was personal satisfaction. The DONs in the study averaged current role tenure of 5.6 years and an

overall DON experience of 12.5 years; suggesting experience in the role was perceived by the DON as adequate for improving quality; versus educational advancement. Strengthening this assumption, was the study of DON educational preparation by Kash et al. (2010), where the researchers did not find the DON prepared at a BSN or higher educational level, displayed improved leadership competency or capacity over the AD DON. While Decker and Castle (2009) found the turnover rates of DONs with a BSN or higher left their organizations 7 months sooner than their AD peers. The results of these two studies suggested education alone would not resolve the DON turnover crisis.

Certification. Certification has been addressed in the literature as a mechanism to improve skill competency and capacity, yet for the DON in LTC; there is no mandate for certification. Despite the lack of a mandate, nursing professional organizations offer multiple certification opportunities. Nonetheless, researchers found less than 70% of DONs have certification recognized by professional nursing organizations (Rao & Evans, 2015). Siegel et al. (2010) and Rao (2013) discussed the routes of nurse certification in LTC as (a) nurse administrator (i.e. National Association of Directors of Nursing Administration/Long Term Care; NADONA), (b) nurse resident assessment coordinator (i.e., American Association of Nurse Assessment Coordinators; AANAC), (c) infection control (Association for Professionals in Infection Prevention and Epidemiology; APIC), (d) geriatrics (i.e., gerontological nursing certification; RN-BC), and (e) leadership (i.e., Nurse Executive Certification; NE-BC), . Although clinical competency was significant to the quality of care in organizations, most of the certifications in LTC provided limited leadership development and capacity to nurses in the DON role (Rao, 2013).

The influence of certification in the LTC environment has received modest attention in the literature. Cramer et al. (2014) evaluated the effect of geriatric nurse certification (GNC) on a front-line RN intent to turnover as an outcome of job satisfaction, clinical competency, and nurse empowerment. The researchers evaluated the perception of GNC from the RN and the supervisor. GNC RNs demonstrated improvement for clinical competency and job satisfaction. However, GNC offered a limited impact on the RN intent to leave. Although this study was limited to 100 RNs from a single LTC chain-organization in a Midwestern state, the impact of certification on quality of care can also be demonstrated through additional research. Corazzini, Anderson, Mueller, Thorpe, and McConnell (2012) conducted a secondary analysis of the 2004 National Nursing Home Survey data to identify DON and RN education and certification on the probability that a LTC organization would display low, mixed, or high levels of professional nursing jurisdiction (i.e., decision-making authority and autonomy). Corazzini et al.'s study evaluated the impact of education and certification of the DON and RN staff, the use of advanced practice nurses, and total RN staffing levels to predict the likeliness of an organization demonstrating professional nursing jurisdiction. The researchers found that organizations with a BSN DON and certified RN staff had a higher probability of increased nursing jurisdiction than organizations with AD DON and AD RN staff who also had high levels of RN staffing (i.e., meaning high RN staffing did not compensate for the decreased levels of education and certification of the DON and front-line RN staff roles; see Corazzini et al., 2012). The researchers also asserted professional certification provided access to knowledge and skills not otherwise

provided to DONs within their organizations. Although a study limitation was the inability to describe the relationship of professional nursing jurisdiction to the quality of care within the organizations in the study, the finding that education and certification improved decision making for practice-based care is important to the quality of care discussion (see Corazzini, 2012).

The impact of education and certification of the DON on of the quality of care within the organization was studied by Trinkoff et al. (2015). The researchers utilized the 2004 National Nursing Home Survey data base and merged the data with the 2004 Nursing Home Quality Indicator fourth quarter data from CMS. The purpose of the study was to test the relationship between DON education, certification, and quality indicator scores for: *high risk pressure ulcers*; *low risk pressure ulcers*; pain; catheter use; and *urinary tract infections*. In the study, 43% of DONs were educated at a BSN or higher degree and 43% of DONs held certification; rates higher than those studied by Rao and Evans (2015). Trinkoff et al. (2015) found that organizations with a BSN DON showed improved quality indicator scores in all measures except pain. Organizations where the DON had certification showed a significant reduction in high risk pressure ulcers and catheters. The organizations where the DON had both a BSN or greater and certification demonstrated significantly higher reductions in pain and catheter use (see Trinkoff et al., 2015). However, Trinkoff et al.'s findings did not substantiate education and certification alone as predicting quality in an organization. Rather, Trinkoff et al. suggested the argument for educational preparation may not extend into leadership roles. Instead, the DON's experience in the LTC industry or in an individual organization had implications

on how the DON could lead teams, align with organizational values, and impact the quality of care in reducing negative outcomes, such as those evaluated here (Trinkoff et al., 2015.

Experience and tenure. Studies provided contradictory results on the importance of experience (a) as a nurse, (b) experience in the organization, or (c) experience as a DON influenced the quality and tenure within an organization. Although several studies indicated tenure as a DON showed a positive correlation with nurse staff retention and the quality of care; other studies revealed experience within an organization, not experience as a DON, leads to improved quality (see Castle & Lin, 2010; Decker & Castle, 2009; Holle et al., 2019; Hunt et al., 2014; Kash et al., 2010; Krause, 2012). Krause (2012) examined nursing home staffing and quality data from 2004 to understand the association of DON tenure and quality measure ratings. Krause found current job tenure rather than past experience as a DON influenced improvement in the quality measure ratings.

Additionally, as the DON's tenure increased so did the quality measure ratings; suggesting organizational support of the DON during role enactment is vital not only to the quality of care provided in the organization but the impact on the tenure (see Hunt et al., 2014; Krause, 2012). Castle and Lin (2010) identified the relationships between DON turnover, RN and nursing assistant turnover, and the use of contract agency staff that also led to decreased quality of care in nursing homes in the United States. Unexpectedly, DON turnover improved quality care measures in depression and delirium and pain for short stay residents (Castle & Lin, 2010). The researchers suggested this contradiction

may result from the clinical expertise of new DONs and the focus on day-to-day operations rather than leadership practices (Castle & Lin, 2010; Siegel et al., 2012).

Finally, a longitudinal case analysis by Hunt et al. (2014) examined the relationship of NHA and DON turnover on the quality of care over a 9-month period using observation and interviews for one organization in the United States. The qualitative study found a 300% NHA and a 400% DON turnover rate during the study period. The high rate of leadership turnover resulted in the new NHA and DON experiencing profound struggles to align values, establish standard practices, or achieve role enactment. The leaders displayed short-term problem-solving techniques limiting long-term strategies aimed at improving the quality in the organization (Hunt et al., 2014). Disillusioned and unsupported, the DONs in Hunt et al.'s study experienced role conflict and ambiguity in the leadership role. Some front-line staff were found to follow exiting NHA and DONs whereas other front-line staff persevered to ensure what quality they could to the residents in their care. The extreme nature of this study demonstrates the significant influence ineffective leadership support creates on the quality provided by and to those within an organization: NHAs, DONs, front-line staff, residents, and family members.

Leader Member Exchange

Relationships within individual LTC organizations are relatively flat (Rao, 2013). The DON reports to the NHA, who is accountable for the overall organizational performance and finances (Rao, 2013). While the DON is responsible for nursing, in many organizations, the DON also serves as acting administrator in the NHA's absence

(Siegel et al., 2012). Rao (2013) suggested the DON's effectiveness in establishing and maintaining internal relationships within the flat, yet hierarchical structure with few true peers may affect decision-making capacity across the organization. The LMX relationship between the NHA and DON is crucial to the DON's success (Fleming & Kayser-Jones, 2008; Rao, 2013).

The characteristics of the leadership-making process within the LMX included relationship building, reciprocity, the LMX, influence, and the type of leadership exhibited; transactional or transformational (Graen & Uhl-Bien, 1995). The development of the LMX relationship between the leader and the member establishes the dimensions of (a) *mutual respect* of each other's ability, (b) reciprocal *trust* within the relationship that builds over time, and (c) interacting *obligation,* which is the expectation that each share in the relationship culminating into partnership (Graen & Uhl-Bien, 1995). To build into mature partnerships, the *dyadic* interaction (i.e., the NHA/DON relationship) exchanges resources reciprocally not unilaterally. Therefore, allowing each (i.e., the leader and member) to effectively perform their roles (Mayfield & Mayfield, 2007; Wilson et al., 2010). The characteristics and dimensions of LMX discussed by Graen and Uhl-Bin (1995) are essential towards understanding the perceptions of the DON as an outcome of the NHA/DON relationship.

Resource exchanges encompass the leader-member perspective of value attributed to the resource provided or received from the other (Graen & Uhl-Bin, 1995). Wilson et al. describe the resource categories in LMX: (a) money, (b) goods, (c) services, (d) status, (e) information, and (f) affiliation. The resource categories can be described as concrete-

abstract and universal–particular (Wilson et al., 2010). Universal resources are resources in which the individual leader-member is providing the resource is unimportant. However, in the instance of a particularistic resource, the individual leader-member granting the resource was essential to the value place upon that resource. Wilson et al. asserted the resources exchanged transitioned from concrete and universal to increasingly more abstract and particularistic as the LMX relationship matured. Over time, the LMX exchange progressed from material resources (i.e., money or services that can be given by anyone in the organization: universal), towards resource exchanges of information and affiliation specific to the leader-member dyad (i.e., particularistic), where mutual liking or effective working relationships were displayed (see Graen & Uhl-Bin, 1995; Wilson et al., 2010). The resources exchanged revealed the anticipated hierarchical development of the LMX relationship (i.e., from transactional to transformational) signifying the dimensions of respect, trust, and obligation. The dimensions also transcend in the leadership-making *stranger to maturity* construct (see Wilson et a., 2010). For example, upon entry to the DON role, the DON can expect to be given direct and specific instructions to perform the role whereas, as the relationship progresses and respect, trust, obligation increase, the DON may be asked to complete a task employing their own nursing jurisdiction to determine the specific steps as to how the task is accomplished.

Contrary to this perspective was the understanding that not all LMX dyads evolved in positive relationships (see Graen & Uhl-Bien, 1995; Matta et al., 2015). Graen and Uhl-Bien (1995) and Matta et al. (2015) acknowledged different LMX dyads performed and expected different degrees of relationships in both quality and interaction.

Appreciation of the resource categories and dimensions of the LMX above was an important step in addressing congruence of quality and agreement within the LMX dyad for my study.

Matta et al. (2015) used role theory to evaluate LMX congruence of the *quality of the leader-member relationship* and the *agreement between leader-member as to the status of the relationship*. Sin et al. (2009) proposed a 2-by-2 matrix whereby both leader-member evaluate the quality and agreement of role expectations. Matta et al. (2015) asserted LMX *quality* is evaluated as high quality (i.e., transformational leadership characteristics), in which a high degree of mutual respect, trust, and obligation are exchanged. Whereas, in low quality (i.e., transactional leadership characteristic), the leader-member dyad displays low levels of these dimensions (Matta et al, 2015). *Agreement* referred to the perception of both the leader and member as to the congruence of LMX quality (Matta et al., 2015). As an example, when the leader and member both perceive the quality to be high; the LMX will benefit from high respect, trust, and obligation. Contrary to Graen and Uhl-Bien (1995) leadership-making model in which the LMX developed positively over time, Matta et al. asserted the agreement of the quality (i.e., whether high or low) was a more effective state of role enactment than disagreement (i.e., when one member perceives the relationship as high while the other perceives the relationship as low). Transactional or transformational leadership would then influence the role performance within the LMX dyad (see Graen & Uhl-Bien, 1995). Matta et al. further described transformational leadership as a socio-emotional state

indicating high LMX quality, whereas transactional leadership indicated a low quality LMX.

Graen and Uhl-Bin (1995) asserted the LMX role performance is attained in each role. Yet, others maintained is dependent upon the DON's AOC and subject to the individual perception of the LMX agreement and quality (see Rao, 2013; Vandenberghe, Bentein, & Panaccio, 2017). Rao (2013) found the following outcomes. First, a DON's perception of task support quality (i.e., "assistance accomplishing a task, exchange of ideas, positive feedback and evaluation, and joint work on projects" (p. 111) from the NHA increased the odds of a DON's ITS by 38%. Second, as the NHA provided each additional level of task support; the odds of the DONs staying increased by 77%. More directly stated, the NHA/DON working relationship and provision of resources (i.e. LMX) is critical to DON tenure. Finally, Rao found NHA's contribution to the DON LMX relationship provided varying amounts of (a) mentoring, (b) coaching, and (c) social support; while noting these three factors were rated by the DON as less important than task support on ITS.

The research by Mayfield and Mayfield (2007) of leader communication on ITS found a similar construct as Rao. Mayfield and Mayfield used the construct of motivating language (i.e. direction giving language, empathetic language, and meaning making speech) as the communication processes by which the leader and member formed relationships and influenced affective responses to work situations on the outcome of ITS. The results of Mayfield and Mayfield's study indicated that for every 10% increase in the use of motivating language, the worker's ITS increased by 5%. Unlike Rao's

(2013) findings, where each level of task support individually would improve retention, Mayfield and Mayfield maintained all the dimensions of motivating language must be used together for an increase in ITS to be realized. Rao's (2013) findings further supported the discussion by Matta et al. (2015) in which transactional LMX (i.e., low LMX quality) was as essential in a less tenured DON's ITS. This might be explained by the DON's substitution of task support to overcome the limited educational and leadership experience needed to be effective in the DON role (Rao, 2013). The transactional LMX can be said to reinforce the assertion that DONs who lack nursing jurisdiction and limited advocacy for professional growth and quality, have a short tenure, and will leave due to the relationship with the NHA (see Siegel et al., 2012). Considering the impact of relationships within organizations themselves, Krause (2012) suggested DON current tenure in a facility rather than previous experience in the DON role improved quality within the organization. What remains to be explored is whether the quality that resulted from a DON's current tenure was due to the inexperience of the DON's leadership competency and capacity (i.e., being supported through the task support from the transactional NHA) or the fulfillment of the cultural understanding and expectation which existed prior to the transition from the front-line nurse role within the organization to the DON role (see Krause, 2012; Matta et al., 2015; Rao, 2013; Siegel et al., 2012).

Affective Organizational Commitment

The mechanism in which an employee chose to stay in an organization was an important construct in the discussion of DON turnover. Often discussed within role

theory or social exchange theory, organizational commitment has been linked in the literature with LMX and turnover (Postmes et al., 2001; Tremblay et al., 2017). The researchers used various mediating and moderating variables to explain the relationships (Gaudet & Tremblay, 2017; Tremblay et al., 2017; Vandenberghe et al., 2017).

Allen and Meyer (1990) addressed the three types of organizational commitment as (a) affective, (b) normative, and (c) continuance. First, affective commitment was described as the emotional-state where the employee feels a connection with an organization and goes above normal expectations to contribute to the organization's welfare. Normative commitment, as described by Allen and Meyer, was the reciprocal effect of working for reward (i.e. money) while garnering satisfaction of performing a job well done without extending beyond expected behaviors. Finally, continuance commitment was defined as the obligation to an organization for no more reason than one is employed and owes a duty; the employee is not emotionally attached to the work (see Allen & Meyer, 1990). For my study, AOC, was defined as the socioemotional state correlating with a person's connection to an organization. AOC was differentiated from the variable LMX, which assessed a person's socioemotional state in connection to a supervisor (see Graen & Uhl-Bin, 1995). AOC provided a potential link to understand a DON's intentions to stay or leave within an organization versus the influence of supervisor support (Rao, 2013; Tremblay et al., 2017).

Tremblay et al. (2017) asserted an employee's congruence with organizational values and culture impacted the employee's perception of the organization and the supervisor. Leadership and management research in various industries has shown the

effects of organizational commitment on an employee's person-organization fit, commitment to the supervisor, supervisor-organization value congruence, and turnover intentions (see Gaudet & Tremblay, 2017; Tremblay et al., 2017; Vandenberghe et al., 2017). Organizational commitment has implications for my study because of the DON hiring process, with the construct of AOC across time in a DON's cognitive state of continuing, in the organization. Researchers contend an employee begins the job search seeking organizations with which they already identify or shares values (see Tremblay et al., 2017; Vandenberghe et al., 2017). Tremblay (2017) and Vandenberghe (2017) suggested that values are mission-driven (i.e., healthcare careers) or motivationally driven (i.e., the pursuit of a leadership position). It is posited that while job candidates may have an awareness of the supervisor for which they will work, the decision to accept the position is more directly related to person-organization (P-O) fit, affiliating with the organizational values before the supervisor suggesting, AOC occurs before hire (Tremblay et al., 2017).

Research by Tremblay et al. (2017) is salient to the discussion of AOC within the construct of DON hiring practices and the supervisory exchange and support within LMX. In their study, the researchers used a time-lagged study over 3 years measuring LMX quality, P-O fit, and organizational commitment, respectively, and sought to understand the conditions under which coworker and customer relationships affected the relationship of LMX and AOC. Tremblay et al. found when LMX was high, coworker support was not a significant factor in P-O fit; however, high coworker support could compensate for a low quality LMX relationship.

DON preparedness addressed DON clinical skills and RN licensure as the most important indicator of the hiring process, rather than value congruency between the person and organization (see Siegel et al. 2015; Sigel et al., 2012). Contrary to this, Tremblay et al. (2017) suggested an employee entered the organization when there was value congruence. Noting, over time the environmental factors of LMX as well as other relationships (i.e., coworker and customer) within the organization affected AOC (i.e., either positively or negatively). The literature indicated LMX between the supervisor and each employee was differentiated based upon supervisor time constraints and values (see Gaudet & Tremblay, 2017; Matta et al., 2015; Tremblay et al., 2017). Stated another way, the supervisor selected specific employees for high-quality LMX; while other employees experienced low-quality LMX. When high-quality LMX existed, value congruence of supervisor-organization and employee-organization were positively associated with AOC (Matta et al., 2015; Tremblay et al., 2017). Whereas, when low-quality LMX existed, the supervisor-employee relationship is weak; contributing to a negative correlation to AOC. Nevertheless, low-quality LMX is moderated if the employee has positive relationships with coworkers and customers, therefore, also positively affecting AOC (Matta et al., 2015). As posited in the discussion of role theory, results from the study by Tremblay et al. indicated LMX and work roles form quickly upon entry into an organization then stabilized as the organizational tenure continued. Therefore, the perception of LMX and role performance may vary across time (see Graen & Uhl-Bin, 1995; Matta et al., 2015). This view aligned with Rao's (2013) finding that DON's social networks outside of the NHA relationship contributed to the DON's success and ITS. As DONs interacted with

other managers and corporate leaders, their AOC might be moderated despite low-quality LMX; yet indicate a positive AOC and reduced intent to turnover (Rao, 2013). This theory was congruent to turnover literature where relationships with other managers and staff positively impact DON and RN tenure (see Hunt et al., 2012).

Similarly, Gaudet and Tremblay (2017) sought to understand the relationship between LMX and AOC using perceived organizational support (POS) via initiating structure leadership (ISL) and employee behavior (i.e., extra role organizational citizenship) and turnover. Similar to task support discussed by Rao (2013), ISL can be described as an environment where the leader provides distinct processes, procedures, role clarification, and communication to achieve shared goals within the organization (Gaudet & Tremblay, 2017). Gaudet and Tremblay (2017) suggested ISL was linked with performance in regulatory and role performance behaviors, such as role conflict and role ambiguity. Through ISL, employees received clarity of expectations, therefore, improved role performance, job satisfaction, and POS, which contributed to a positive relationship with AOC (Gaudet & Tremblay, 2017). The researchers further found ISL had an indirect influence on how the employee displayed behaviors of organizational commitment and turnover, and that POS was mediated by organizational commitment. Secondarily, of the three LMX dimensions: (a) affect, (b) loyalty, and (c) professional respect (Sin et al., 2009), only respect showed significance in moderating the relationships of ISL and POS. Gaudet and Tremblay asserted these findings contradicted leadership literature, rather describing a transformational leader as superior to the transactional leader, yet argued their findings suggested employees desired structure, task clarity, and competence of the

leader over leadership style and relationship. Gaudet and Tremblay's study correlated with Rao's findings where the DON's rated task support over coaching and mentoring. POS, therefore, was seen as support from the organization via the supervisor, therefore, positively contributed to AOC and had a negative correlation to turnover. The link between LMX quality and agreement was raised as POS and ISL could be described as low quality LMX; however, could also negatively influence turnover (Matta et al., 2015).

Intent to Leave and Intent to Stay

Significant research has been conducted in the past decade evaluating turnover in the nursing profession. Although none of the research discussed can be generalized outside of the representative study populations, recall the nurse rises to the DON role primarily through the AD route, with the majority of their clinical experience in the hospital setting. Additionally, the DON primarily advanced to the leadership position as a result of clinical competence, as opposed to leadership knowledge or experience (see Siegel et al., 2012; Siegel & Sikma, 2015). The following research contributed to the discussion of the values the front-line nurse may possess upon entry to the DON role.

Front-line nursing staff in Canada were surveyed for intent to leave in two separate studies. In the first study, Chu et al. (2014) surveyed 324 administrators and nurses of LTC homes in Ontario Canada to understand the impact of organizational factors on nurse turnover intentions. The researchers found for each increase in positive leadership behavior (i.e., teamwork, effective listening, recognition, and role clarity), there was a 49% decrease in nursing turnover. This finding supported previous research which positively correlated transformational leadership behaviors with employee

retention (Matta et al., 2015). In the second study, McGilton et al. (2014) surveyed 41 RN and LPN staff from seven nursing homes in Ontario, Canada to understand what factors impacted nurse retention and organizational factors. The findings from the qualitative study informed positive and negative themes contributing to the decision-making of the front-line staff. The negative attributes within LTC of (a) heavy regulation, (b) limited autonomy and decision making, and (c) limited leadership support; balanced with the positive attributes of relationships with residents, peers, and supervisors created conflict within the nurse's turnover intention (McGilton et al., 2014). The nurses recounted the paradox of meeting regulation limited the time they were able to spend with residents. Therefore, contributed to role stress and influenced whether the nurse succumb to the negative factors or overcame the intent to leave by focusing on relationships; elements central to job satisfaction in the LTC nurse. Consistent with the literature of DON education, certification and experience, both front-line nursing staff and DONs valued the relationships with residents and coworkers as pivotal in their decision making on intent to leave (see McGilton et al., 2013; McGilton et al., 2014; Tremblay et al., 2017).

DON and organizational demographics were evaluated against empowerment, job satisfaction, and burnout and were reoccurring themes across multiple studies on the turnover in DON role (see Kash et al., 2010; March, 2011; Rao, 2013). Rao (2013) found increased age correlated with an increased intent to turnover. Whereas, March's (2011) study did not support this finding. Kash et al. (2010) found higher education of the DON and an urban versus rural setting contributed to increased DON turnover. Meanwhile,

Decker and Castle (2009) and Rao identified organizations with a for-profit status displayed higher rates of turnover in the DON role than their not-for-profit counterparts.

Analysis of tenure of the DON has contributed to understanding the link between RN staff retention and quality and the importance to decrease DON turnover (see Fleming & Kayser-Jones, 2008; Hunt et al., 2014; Hunt et al., 2012; Rao, 2013). In an evaluation classifying nursing homes as low-medium-high RN retention facilities, Hunt et al. (2012) found high RN retention homes demonstrated 3 times greater DON tenure (i.e., 54.3 months) than low RN retention homes which showed DON tenure of just 17.3 months. Rao (2013) evaluated DON professional networks as support mechanisms to retain DONs. Rao's results suggested DONs who were older, had previous experience as a DON, or had tenure within the organization (in another role) received less networking support from the NHA, other managers in the organization, and regional consultants; thereby limiting the leadership development support of these individuals. Finally, Fleming and Kayser-Jones (2008) and Hunt et al. (2014) found tenure as a DON did not compensate for the role conflict and role ambiguity each faced upon entry into an individual facility's organizational culture.

Siegel et al. (2015) and Rao and Evans (2015) described the accountability-preparation gap DONs must overcome in their skill development of communication with the NHA in garnering resources for nursing staff and the provision of quality care in the nursing home. Both researchers asserted time was necessary for the DON to acquire the knowledge and skill to host these discussions. Siegel et al. provided a DON's narrative describing the transition across several years of tenure with which to move from the day-

today activities within the DON role towards leadership capacity and jurisdiction over nursing practice.

ITS is the positive affective response to remain in an organization, the inverse of intent to leave (Mayfield & Mayfield, 2007). Mayfield and Mayfield (2007) evaluated *motivating language* (i.e., direction-giving, empathy, and meaning-making in communication during a LMX) used by hospital nurse leaders in the southwest United States to evaluate a staff nurse ITS. As discussed above, a leader's combined use of all dimensions of motivating language increased the ITS of the study participants. The affective (i.e., feeling) state of a DON's ITS may improve tenure by providing insight into retention strategies that personally connect DONs to their role.

Turnover of the DON role limits DON role development, RN staff retention, and the quality of care in the nations nursing homes (Hunt et al., 2012; Krause, 2012; Siegel et al., 2012; Rao, 2013). The literature on intent to leave and ITS for the DON demonstrated the complex and multifaceted variables within the DON role and LTC environment. While each study discussed above found the support of the DON's intent to leave related to age, tenure, organizational culture, quality, or relationships with others; none of the research was able to provide a nationally representative account of the turnover of the DON role.

Summary and Conclusions

The role and relationships of the DON in LTC are influenced by several factors. The literature review provided recent and seminal research asserting the DON was unprepared for the role as a result of personal characteristics and industry practices (Hunt

et al., 2012; Krause, 2012; Siegel et al., 2012; Rao, 2013). The previous discussion has shown relationships within the NHA/DON dyad and relationships with front-line staff and residents can support a DON's successful transition into the role or counteract low quality LMX while maintaining organizational commitment (Gaudet & Tremblay, 2017; Graen & Uhl-Bin, 1995; Matta et al., 2015). High levels of role conflict and role ambiguity occur when a role occupant is unprepared through skill and knowledge to enact a role (see Biddle, 1986). The relationship with the NHA has been shown to have the greatest influence on DON turnover, however, other relationships within the DON's environment can negate a low quality NHA/DON LMX (see Gaudet & Tremblay, 2017; Rao, 2103). Organizational commitment is frequently linked with the intent to leave and turnover. The DON's AOC to the organization may influence the ITS despite or in conjunction with the perception of supervisory support from the NHA. Previous research on role conflict, role ambiguity, and LMX on AOC, intent to leave, and ITS has been studied in nursing and the LTC or DON environment; however, no studies have been identified to understand all of the variables on the role of the DON in LTC (see Brookes et al., 2007; Chu et al., 2014; Corazzini et al., 2012; Cramer et al., 2014; Fox, 2013; Gaudet & Tremblay, 2017; Kash et al., 2010; Krause, 2012; Matta et al., 2015; Mayfield & Mayfield, 2007; McGilton et al., 2014; Rao, 2013; Rao & Evans, 2015; Siegel et al., 2018; Siegel & Sikma, 2015; Siegel et al., 2012; Siegel et al., 2015; Tremblay et al., 2017; Trinkoff et al., 2015; Vandenberghe et al., 2017).

The literature review revealed a gap in the understanding of complex factors associated with DON ITS. The intent of this study was to further the knowledge of the

relationships of role conflict, role ambiguity, and LMX on AOC and ITS of the LTC DON utilizing a quantitative, descriptive, comparative study. The literature provided qualitative and quantitative research which addressed key variables independently. However, the methods and sample sizes provided limitations for explaining a DON's intent to leave as generalized to regional or national populations. The significance of my study contributes to DONs, organizations, and stakeholders understanding of DON ITS, which may generate the establishment of practice and policy reform to improve DON role transitions.

In chapter 3, I will provide the research plan and design to understand the difference between LMX, AOC, and ITS in DON's with high versus low levels of role conflict and role ambiguity. The gap in knowledge regarding the relationships was demonstrated in the literature as factors which may influence a DON's ITS. Aligning with the studies identified in the literature relating to the DON role, AOC, and ITS, a quantitative descriptive, comparative design was chosen to examine the variables in the LTC DON in the CMS Region 8 in the United States.

Chapter 3: Research Method

Introduction

The turnover and tenure of the LTC DON impacts those working and living in the nursing facility. The purpose of this study was to understand the difference between LMX, AOC, and ITS in DONs with high versus low levels of role conflict and role ambiguity. Positive social change may be impacted as DON turnover and tenure has broad implications for DONs and stakeholders in the LTC industry.

In Chapter 3, I discuss the research design; the rationale for the design; and the data collection plan comprising population, sampling, and recruitment. I will also discuss the instrument selection and the operational definitions of the key variables. I conclude the chapter addressing the threats to external, internal, and construct validity as well as the ethical procedures employed to ensure study validity.

Research Design and Rationale

The research design is an outline used for researchers to create a study that addresses the research problem and answers the research questions (Grove, Burns, & Gray, 2013). I used a quantitative, descriptive, comparative analysis, single-stage survey design to examine the relationship between the predictor variables (i.e., role conflict and role ambiguity), the mediating variable (i.e., LMX), and the outcome variables (i.e., AOC and ITS). Demographic and environmental variables were considered in the data collection and analysis for their influence on the predictor and outcome variables.

The research questions were suitable to the survey design through the utilization of instruments as demonstrated in previous research answering similar inquiries of

participant perceptions and study variables (see Frankfort-Nachmias, Nachmias, & DeWaard, 2015*)*.

The research questions were:

Research Question 1: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict?

Research Question 2: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity?

Timing and resources are constraints impacting research design choice. I planned appropriately to minimize their impact on this study. Timing addressed survey deployment and analysis, while the consideration of resource constraints addressed the costs associated with the research method chosen (see Frankfort-Nachmias et al., 2015).

Timing was a consideration in the research design for both survey deployment and data analysis. Survey research should allow participants an appropriate time for survey completion while also addressing a timeline in which to close the survey (see Frankfort-Nachmias et al., 2015). To address timing constraints, I deployed the survey for 4 weeks via individual e-mail addresses with a reminder e-mail at the beginning of Weeks 2, 3, and 4. In consideration of data analysis, I planned for sufficient time to complete variable transformation and analysis after data collection had concluded.

Resource constraints were addressed through the use of a survey design as opposed to in person or phone interviews or other methods of direct contact with participants. I used an online method of survey deployment to reduce further resource constraints of costs that would be associated with other research methods, such as qualitative or quasi-experimental designs (see Creswell & Creswell, 2018). Recruitment procedures of the descriptive, correlational, single-stage survey design were determined for fit within the overall time and resource constraints of the study with the aim of achieving the largest number of participants possible (see Frankfort-Nachmias et al., 2015). I provided a $5 gift card to thank study participants for their time and effort in contributing to the study outcomes.

The quantitative, descriptive, comparative analysis, single-stage survey design was an appropriate design for social science studies where the purpose is to understand the relationships among variables (see Frankfort-Nachmias et al., 2015). Although comparative studies do not provide causation, Frankfort-Nachmias et al. instructed this type of study does allow the researcher to make inferences about relationships of variables that contribute to advancing the knowledge of the study population. I employed a single-stage survey design to achieve a broad reach of study participants. Frankfort-Nachmias et al. also provided guidance in the decision-making to include or exclude alternative survey designs. Longitudinal studies provide for the ability to examine group differences over time; however, this type of design did not fit into the overall time constraints of the current study. Qualitative studies, while providing for a richer description of DONs' perceptions and experiences of role conflict, role ambiguity, and

LMX would have required significant time and resources to recruit, travel, and examine data. Therefore, a qualitative method was not suitable for the design and methodology of the current study (see Frankfort Nachmias et al., 2015). The quantitative, descriptive, comparative survey design was most aligned with the study purpose and research questions.

Survey research has been used to study AOC and the ITS in manufacturing, hospitality, retail, university students and alumni, as well as hospital and nursing home nurses (see Cowden & Cummings, 2012; Gaudet & Tremblay, 2017; Han et al., 2015; Jung & Yoon, 2013; Mayfield & Mayfield, 2007; Rao, 2013; Rizzo et al., 1970; Vandenberghe et al., 2017; VanWaeyenberg et al., 2015). Survey research allowed for broad distribution in a cost-effective manner. Finally, a survey design provided the opportunity to reach DONs from a larger geographical region, outside of organizational or professional affiliations, to advance the understanding of DON perceptions of role conflict, role ambiguity, and LMX.

Methodology

Research methodology, the strategy used for designing the study, should be explicit to allow for replication of future studies (see Creswell & Creswell, 2018). In this section, I describe the decisions and components essential for a valid and reliable study.

Population

The targeted population of the study was the 640 DONs in CMS Region 8 (i.e., Colorado, Montana, North Dakota, South Dakota, Wyoming, and Utah). CMS (2018) requires a RN be designated as DON for each facility. Although CMS allows two nurses

to share the role of DON, one DON is required to be identified by the facility as the primary nurse responsible for the nursing department. The primary nurse designated by the facility was the RN defined in the inclusion criteria and asked to participate in this study.

Sampling and Sampling Procedures

I used a convenience, single-stage sampling methodology for conducting the study (see Fowler, 2014). The DONs were identified through each state's publicly available online listing of DON or NHA e-mail addresses or by accessing DON contact information from the state's nursing facilities licensing office. DONs were provided inclusion and exclusion criteria to determine participation in the study.

The inclusion criteria of this study were:

- RNs in LTC designated as the DON with a defined role and responsibility in leading the nursing staff.
- The DON role was defined as the primary nurse leader having 24/7 accountability for operational and financial outcomes of nursing services and responsibility for the quality of care provided by the nursing department.
- RNs currently serving in the DON role at a skilled nursing or intermediate care facility in CMS Region 8 (i.e., Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming).
- RNs employed by the facility as DON for 3 months or greater.

The exclusion criteria of this study were:

- RNs serving in a shared DON position who do not have the primary accountability within the facility.
- RNs employed as an assistant DON or other nurse manager role.
- RNs serving in an interim or temporary DON position; had not been hired to serve on a fulltime, continuous basis.
- RNs employed as DON in a nursing facility outside of CMS Region 8 (i.e., state other than Colorado, Montana, North Dakota, South Dakota, Utah, or Wyoming).
- RNs employed as DON/nurse leader in a hospital designated as Critical Access or Prospective Payment hospital providing Skilled Swing Bed services.
- RNs not actively serving in the DON position or having past experience as DON.
- RNs employed as DON for less than 3 months.

I conducted convenience sampling because each DON in CMS Region 8 had the opportunity to accept the survey invitation. I did not utilize professional organizations for recruitment because extant research had determined less than half of DONs have certification or membership with these organizations (Rao, 2013). The inclusion and exclusion criteria were based on the operational definitions of the DON in LTC and the regulatory definitions of skilled services that could potentially be confused with the provision of skilled services in settings other than the nursing home environment.

G*Power

I determined the sample size for my study by using G*Power software developed by Faul, Erdfelder, Buchner, and Lang (2009). G*Power is publicly available online. The statistical testing methods for the research design included Pearson's correlation, one-way MANCOVA, and multivariate linear regression. An a priori power analysis for MANOVA was computed using the established research parameters (see Creswell & Creswell, 2018; Field, 2013). A power analysis using MANCOVA with an effect size of 0.5, $a = 0.05$, and power = 0.80 indicated a sample size of 74 for this study. There are 640 nursing homes in CMS Region 8, each required to have a DON. Consideration of current DON turnover in these facilities estimated at 32% had the potential of limiting participants from 640 DONs to a target population closer to 429 DONs.

Procedures for Recruitment, Participation, and Data Collection

I designed the recruitment and data collection procedures for this study to protect the confidentiality and anonymity of participants while gathering information towards understanding DON perceptions of role conflict, role ambiguity, LMX, AOC, and ITS. Collection of demographic and environmental characteristics were derived from the literature for their influence on a DON's experience with role conflict, role ambiguity, LMX, ACO, and ITS. The demographic and environmental characteristics were collected via nominal, ordinal, and interval levels of measurement (see Appendix A). DON demographic characteristics included (a) gender, age, (b) highest level of education attained, (c) years of employment as RN, (d) years of employment as DON, (e) years in current DON role, (f) previous employment as DON in other facility, (g) internal hire

from current facility directly into DON role, (h) specialty certification, (i) professional organization membership, and (j) state where respondent is employed. The environmental characteristics included (a) geographic area, (b) facility ownership, and (c) facility size. Wyoming is noted to have 38 nursing homes and Montana 83. The small number of nursing homes in these states denoted a requirement to assure the confidentiality of these participants and was managed in data analysis and interpretation procedures.

I recruited participants for this study through several methods. The first method was via direct e-mail to the DONs in CMS Region 8 obtained via contact with the state nursing facility licensure office. A second recruitment method was the use of NHA e-mail address contacts with a request to forward the survey invitation to the DON. Another recruitment method was the use of publicly available websites listing the e-mail addresses of NHA who would be asked to forward to the DONs for CMS Region 8. I e-mailed the research study description, a request for participation with inclusion/exclusion criteria, the procedure for informed consent, and a link to the online questionnaire to each DON or NHA contact in CMS Region 8. In the event an e-mail address was nondeliverable, I conducted a secondary review of the facility website or made phone contact with the facility, requesting an updated e-mail address for the current DON. The online survey was opened for 4 weeks or dependent upon participant response rates and the established power analysis. Follow-up e-mails were sent at the beginning of each week during Weeks 2, 3, and 4 to remind the DON of the research study and request to participate.

I provided informed consent to study participants through the recruitment invitation. The informed consent included the purpose of the study, a description of the risks and benefits of participation, procedures for exiting the study, and how confidentiality of the data collected would be maintained (see Creswell & Creswell, 2018; Grove et al., 2013). Participants were given my contact information should questions have arose. I instructed participants that informed consent was implied when clicking the link to proceed to the survey. Participants were directed to their respective employee assistance program if individual concerns arose as a result of study participation. I did not follow up with any participants after the study because I did not know who participated. A statement of how to access the published dissertation was provided in the recruitment letter to participants. Finally, upon submission of the completed survey, a website address link was provided where participants could access a summary of the study outcomes upon study completion and provide contact information to receive a $5 gift card as a thank you for participation.

Instrumentation and Operationalization of Constructs and Variables

In this section, I provide a description of the instrumentation, the use in previous research, and conclude with the operational definitions of the key variables and concepts for this study. The predictor, mediating, and outcome variables were measured by four instruments: RCS, RAS, LMX-7, ACQ, and ISS.

Role Questionnaire: RCS. The eight item role RCS was developed by Rizzo et al., (1970). The subscale is derived from the construct of role conflict on role theory, which guides my study (Rizzo et al., 1970). The RCS contains questions to capture a

DON's level of agreement with eight statements about role conflict. I registered permission for use in this study through the Copyright Clearance Center with proper credit and citation of copyright (see Appendix B).

Rizzo et al. (1970) reported the reliability measure with a Cronbach's alpha for role conflict 0.816 and 0.820 in two sampled groups. The role conflict subscale studied the correlations with job satisfaction, leadership behaviors, organizational characteristics, anxiety, and turnover intentions among middle managers and technical staff in a manufacturing plant (Rizzo et al., 1970). Role stress, role overload, and role conflict as overarching constructs have been defined using a variety of different measures, questionnaires, and tools (Brookes et al., 2007; Han et al., 2015; Jung & Yoon, 2013; Rizzo et al. 1970). Reliability of Cronbach's alpha of greater than 0.7 to 0.8 indicates the measure is appropriate to test the construct of role conflict (Field, 2013).

Role Questionnaire: RAS. The RAS subscale has six items to measure role ambiguity which was developed by Rizzo et al., (1970). The RAS contains questions to capture a DON's level of agreement with six statements about role ambiguity. I received permission to use the RAS for noncommercial research and educational purposes with proper citation and copyright (see Appendix B).

Reliability testing for role ambiguity in Rizzo et al. (1970) showed a Cronbach's alpha of 0.780 and 0.808 across two samples. Role ambiguity was used to evaluate correlations with job satisfaction, leadership behaviors, organizational characteristics, anxiety, and turnover intentions in middle managers and technical staff of a manufacturing plant (see Rizzo et al., 1970). Acceptable reliability of Cronbach's alpha

of 0.7 to 0.8 indicates the role ambiguity subscale is an appropriate instrument to test the construct in the current study (Field, 2013)

LMX-7 Scale. LMX-7 has seven items to measure the LMX quality which was developed by Graen, Novak, and Sommerkamp (1982). The LMX-7 was derived from the original five question LMX by Graen and Cashman (Graen & Uhl-Bien, 1995). The LMX-7 construct was an appropriate questionnaire to assess the DON's perception of the quality of the NHA/DON working relationship; mutual respect, reciprocal trust, and interacting obligation (Graen & Uhl-Bien, 1995; Matta et al., 2015) opposed to the multiple measure of leader-member exchange test (i.e., LMX-MDM; see Liden & Maslyn, 1998) which measures the liking-based relationship (contribution, loyalty, and affect) that is discussed by Sin et al. (2009). I obtained permission from Elsevier BV via computer communications through the Copyright Clearance Center for use for noncommercial research and educational purposes with proper citation and copyright [license ID 4530930863342]. (see Appendix C).

Graen et al. (1982) studied adults from a form processing organization in the midwestern United States in a test retest model reporting Cronbach's alpha of .86 and .84, respectively. In a theoretical review and analysis of the various LMX tools, Graen and Uhl-Bien (1995) evaluated the construct of the LMX-7 also found a Cronbach's alpha of 80-90%, suggesting LMX-7 is a more appropriate measure of the quality of working relationships than the liking-based relationship of the LMX-MDM test (Liden & Maslyn, 1998). Finally, Matta et al. (2015) studied working adults and their supervisors as recruited by junior-grade students from a large Midwestern University. The

researchers measured the employee and supervisor agreement of the quality of the LMX relationship. Matta et al. reported a Cronbach's alpha of 0.89 for the employee rating and 0.83 for the supervisor rating. Unlike the study by Matta et al. and with consideration of time and resource constraints, I will only survey DONs despite the capability of LMX-7 to measure both supervisor and employee of the LMX relationship.

Affective Commitment Questionnaire (ACQ). The five item ACQ (see Appendix D) was developed by Postmes, Tanis, and de Wit (2001). This version was modified from the six-item version by Allen and Meyer (1993) and the seven item original (see Allen & Meyer, 1990). The ACQ was designed to measure the level of AOC as a single construct of the DON's socio-emotional attachment to the organization (Meyer & Allen, 1990). I obtained permission from the author via e-mail correspondence for replication and publication with proper credit and citation of copyright (see Appendix E).

Postmes et al. (2001) conducted a study using the affective commitment questionnaire and removed one statement "I would be very happy to spend the rest of my career with this organization" and reworded the remaining five items to remove parenthetical statements and negatively worded statements. The researchers conducted a 2-study model of (a) employees of a Dutch distance learning institution and (b) employees from a Dutch insurance company to assess vertical and horizontal communication and subsequent commitment to the unit and organization. The reliability of the ACQ reported by Postmes et al. was 0.88 and 0.85 for the 2-study model. Meyer, Allen, and Smith (1993) conducted a 2-study model: a longitudinal study of 4th year

nursing students in Canada; and a random sample of all nurses in Canada used the six item Allen and Meyer (1991) tool. Factor loading was conducted for the affective commitment subscale. Meyer et al. did not provide Cronbach's alpha parameters except to indicate the two weakest loading factors were removed, establishing a Cronbach's alpha of > 0.88. Using the Meyer et al. six item version of affective commitment, Gaudet et al. (2017) studied employees of a large Canadian retailer finding Cronbach's alpha of 0.93, while Tremblay et al. (2017) studied employees of a large national retailer in Canada and established Cronbach's alpha of 0.96 for the construct of ACQ.

Intentions to Stay Scale (ISS). The seven item ISS (see Appendix F) was developed by Mayfield and Mayfield (2007) to measure attitudes of employees for ITS in the organization. The ISS was appropriate to use for my study because the construct aligns with my variable of measuring the DON's intent of continued employment with the organization. I obtained permission from the original author via e-mail correspondence for replication and publication with proper credit and citation of copyright (see Appendix G).

Mayfield and Mayfield (2007) developed the ISS to study nurses in a hospital turnover reduction program in the southwestern United States. Reliability was measured in the original study for the positive and negative subscales using Cronbach's which yielded reliability measures of 0.77 and 0.65, respectively. An alpha of 0.7 or below can be reliable where multiple dimensions or psychological constructs are measured (Field, 2013).

Naim and Lenka, (2017) used Mayfield and Mayfield's (2007) ISS, albeit, slightly modified, to investigate the relationship of mentoring on intention to stay of Generation Y (those born between the years 1981-2000) employees from 26 information technology companies in India. The researchers reported a Cronbach's alpha of 0 .76. Finally, the ISS was used by Bergquist (2018) to investigate empowerment and autonomy in a nursing director's intention to stay in the United States, reporting a Cronbach's alpha of 0.795, consistent with Mayfield and Mayfield's original reliability measure.

Operational Definition of Key Variables

In this section, I provide the operational definitions of key variables and report how each variable was measured and scored. I will also provide an example of an item within each tool. I will conclude the section by providing the research question aligning with the variables (Table 1).

Affective Organizational Commitment (AOC) was operationally defined as the DONs socio-emotional connection to the organization, desire to go above expectations, and contribute beyond expectations to support the organization (Allen & Meyer, 1990). The five item ACQ measured the construct of AOC and was assessed using a five point Likert scale 1 = *strongly disagree* to 5 = *strongly agree*. An example item of the ACQ is "I feel emotionally attached to the organization."

Intention to stay (ITS) was operationally defined as the affective response of intent to remain or quit a healthcare position (Cowden & Cummings, 2012; Mayfield & Mayfield, 2007). ISS measured the three-item positive and four item negative attitudes of expected continuance with the organization assessed using a five point Likert scale 1=

strongly disagree to 5 = *strongly agree*. The scale required reverse coding of negatively framed questions; a higher score reflecting a higher degree of a positive response to remain with the organization. The ISS reflected responses to questions, such as "I am actively looking for another job."

Table 1

Overview of Instruments

	Variable	Instrument	No. of Items	Estimated time (min.)
Predictor variables	Role conflict	RCS	8	3
	Role ambiguity	RAS	6	3
Mediating variable	Leader member exchange	LMX-7	7	3
Outcome variables	Affective organizational commitment	ACQ	5	3
	Intent to Stay	ISS	7	3

Note. RCS = role conflict subscale, RAS = role ambiguity subscale, LMX-7 = Leader-member exchange seven item scale, ACQ = affective commitment questionnaire, ISS = Intent to stay scale

Leader member exchange (LMX) was operationally defined as the relationship between a leader (supervisor) and member (subordinate) establishing mutual respect, reciprocal trust, and interacting obligation within frequency of the exchange, the length of the relationship, and the quality of the exchange of resources of the working relationship (Graen & Uhl-Bien, 1995; Wilson et al., 2010). The LMX-7 scale assessed the quality of the relationship using seven items on a 5 point Likert scale, summing the items into a single composite measure ranging from 7-35 (Graen & Uhl-Bien, 1995; Matta et al.,

2015). The scoring indicated high quality (in-group) or low quality (out group) relationships. The scoring was (a) 30-35 = very high, (b) 25-29 = high, (c)20-24 = moderate, (d) 15-19 = low, and (e) 7-14 = very low (Northouse, n. d.). An example of an item is "How well does you leader understand your job problems and needs?" measured as 1 = *not a bit*, 2 = *a little*, 3 = *a fair amount*, 4 = *quite a bit*, and 5 = *a great deal*.

Role conflict was operationally defined as the incongruence of expectations of self and others based on standards of role performance especially when multiple roles are expected from multiple constituents (see Rizzo et al., 1970). Rizzo et al. (1970) used the eight statements to measure role conflict on a 7 point Likert scale (i.e., 1 = *very false* to 7 = *very true*) and scored into a single composite of 7- 56; a higher score indicating a higher level of agreement to the construct of role conflict. The subscale asked perceptions of role conflict, such as "I have to do things that should be done differently" (see Rizzo et al., 1970).

Role ambiguity was operationally defined as the lack of clarity of role expectations with an understanding of ramifications when expectations are not met (see Rizzo et al., 1970). Rizzo et al. (1970) used the six statements to measure role ambiguity on a 7-point Likert scale (i.e. 1 = *very false* to 7 = *very true*) and scored into a single composite of 7 to 42; a higher score indicating a higher level of agreement to the construct of role ambiguity. The subscale asked perceptions of role ambiguity, such as "I feel certain about how much authority I have" (see Rizzo et al., 1970).

Operational Definition of Concepts

Director of nursing was defined as an RN designated by the facility to serve in the role full time where roles and responsibilities are clearly defined. It is permissible for a shared role among two individuals with one individual being designated as primarily responsible for the role (CMS, 2018).

Intent to leave was defined as a DON's voluntary intention to leave an organization; the negative behavioral intentions to ITS (Mayfield & Mayfield, 2007, Rao, 2013).

Nursing jurisdiction was defined as the decision-making authority and autonomy in leading the nursing workforce for LTC (Rao & Evans, 2015).

Role enactment was defined as the undertaking of the DON role by a nurse new to the environment based upon previous understandings of role needs and expectations (Biddle, 1986; Rizzo et al., 1970).

Task support as defined by Rao (2013) "assistance accomplishing a task, exchange of ideas, positive feedback and evaluation, and joint work on projects" (p. 111).

Data Analysis Plan

I analyzed the data using the IBM Statistics SPSS v.25. I collected data via SurveyMonkey and then exported into SPSS. Data was screened and cleaned for missing or incomplete data then analyzed based on the standards set for statistical testing and validity (see Field, 2013). The procedures for transposing of data and coding of variables for data analysis was kept in an Excel file and available to committee members and the

academic institution statistician upon request. Data analysis included descriptive statistics, Pearson's correlation, MANCOVA, and multivariate linear regression.

The research questions and hypothesis were:

Research Question 1: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict?

$H_0$1: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

$H_1$1: There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

Research Question 2: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity?

$H_0$2: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care

directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.

$H_1$2: There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.

I analyzed the demographic and environmental characteristics collected at the nominal, ordinal, and interval levels of measurement. The psychometric instruments of role conflict, role ambiguity, LMX7, ACQ, and ISS reflect interval levels of measurement. Researchers and theorists debate the validity and robustness of data analysis where levels of measurement may be classified as ordinal or interval depending upon the reviewer (Norman, 2010). Norman (2010) maintained the analysis of Likert scales as a continuous interval measure is sufficient to meet the assumptions of parametric tests showing the robustness where Pearson's correlation coefficient is used to test violations of assumptions.

The role questionnaire instrument measured role conflict and role ambiguity on a seven point Likert scale for the statements (a) 1 = *very false*, (b) 2 = *false*, (c) 3 = *somewhat false*, (d) 4 = *neither true nor false*, (e) 5 = *somewhat true*, (f) 6 =*true*, and (g) 7 = *very true*. For the study, I compared those DONs with high versus low levels of the constructs role conflict and role ambiguity. I established an a priori cut point of the Likert scale ≤ 4.4 indicating a low level and the rating of ≥ 4.5 as high level for each of the constructs. The instruments ACQ and ISS used a 5 point Likert scale to collect the

following statements: (a) 1 = *strongly disagree*, (b) 2 = *disagree*, (c) 3 = *neutral*, (d) 4 = *agree*, (e) 5 = *strongly agree*. The LMX-7 scale also used a five point Likert scale, however, has varying ratings by item in which the scoring is as follows (a) 1 = *rarely* to 5 = *very often*, (b) 1 = *not at all* to 5 = *fully*, and (c) 1 = *extremely ineffective* to 5 = *extremely effective*, in addition to (a) 1 = *strongly disagree* to (b) 5 = *strongly agree* (see Graen, Novak, & Sommerkamp, 1982). The above psychometric instruments were measured at the interval level of measurement as maintained by Norman (2010).

I utilized the data analysis methods below for each of the two research questions:

- *Pearson's correlation* was used to test the relationships of the predictor variable, role conflict (RQ1) or role ambiguity (RQ2), and the mediating variable, LMX, to AOC and ITS as measured by the instruments discussed previously (see Laerd Statistics, 2018a).
- *MANCOVA* was used to test two or more continuous outcome variables, one categorical predictor variable, and one or more continuous covariates (see Field, 2013; Laerd Statistics, 2017). Role conflict (RQ1) and role ambiguity (RQ2), LMX, AOC, and ITS met the criteria for the first three assumptions of MANCOVA. The robustness and rigor of MANCOVA for testing relationships of two outcome variables is essential to understanding the complexity of the DON role and turnover therefore, defining MANCOVA as an appropriate method to answer the research questions of this study (see Field, 2013; Laerd Statistics, 2017; Norman, 2010).

- *Multivariate linear regression* permitted testing of relationships among continuous variables to find the level of statistical significance, the amount of variation, the direction and magnitude of the variation, and the predictability of an outcome variable using the value of the predictor variable (see Laerd Statistics, 2015b). Violation of assumptions for linearity may be corrected by transforming the data across all variables, evaluating outliers, or running a bootstrap test (see Field, 2013).
- I calculated a Cronbach's alpha for each of the survey instruments that I use in this study.

Threats to Validity

The research design and methodology were established to minimize threats to external, internal and construct validity (see Creswell & Creswell, 2018). Creswell and Creswell (2018) described the specific validity constructs by type. External validity referred to the researcher's attempts to make inferences of the study outcomes beyond the appropriate populations and settings. Whereas, internal validity referred to study procedures that impact the reliability of the research through participant selection, participant characteristics, and research design. Lastly, construct validity described the statistical power of data analysis and the interpretation of the study variables.

External Threats

The main external threats to this study included the interpretation of results for populations and settings outside the study parameters (see Creswell & Creswell, 2018). The single-stage survey design and the survey population, a homogenous group of RNs in

a specified region of the United States, minimized the threats to external validity. I conducted my study in one region of the United States. The results of my study cannot be generalized to other regions of the country or in groups outside of the directors of nursing in the nursing home environment. Additionally, because this was a single-stage survey design, generalization cannot be made beyond the single time point of the 4 weeks as indicated by the study timeframe. Inferences to other populations and geographical regions are carefully evaluated in Chapter 4. Finally, I described the research design and methodology to allow for the replication of this study for future research.

Internal Threats

The internal threats for my study included participant maturation as they continue the survey. The constructs of LMX, AOC, and ITS have shown strong associations in previous research, therefore participant response bias may limit results. A second threat to the validity was in the selection of participants (see Creswell & Creswell, 2018), therefore, convenience sampling of DONs in CMS Region 8 provided each DON the choice to participate. The decision to attempt to contact all DONs in CMS Region 8 rather than use a professional organization or state association DON lists assisted to minimize selection bias since all DONs with current e-mail addresses were included. The recruitment of participants indirectly via NHA e-mail contact further limited the study towards assuring only DONs are completing the survey. Only instruments with construct validity and an appropriate total number of questions was asked of the participant to reduce the threat to testing and improve survey completion as well as increase the total number of participant surveys returned (see Creswell & Creswell, 2018). Additionally,

the instrumentation threats were addressed through the defined 4-week online survey deployment using instruments having shown reliable measurement of the constructs of interest. Finally, statistical regression threats were minimized through data screening procedures (see Warner, 2013).

Construct Validity

The third threat to the validity in research studies was the statistical conclusion validity (see Creswell & Creswell, 2018). Creswell and Creswell explained this threat occurs when the researcher makes inaccurate inferences resulting from inaccurate data analysis and interpretation procedures. Construct validity was minimized in the thorough evaluation and description of study variables and the selection of survey instruments portraying the operational definitions of variables appropriate to the research questions and hypotheses

Ethical Procedures

In this section, I provide a review of the ethical procedures enlisted in this study. Research involving human subjects requires that I establish procedures to protect participant's rights throughout the research study; from study design through research dissemination (see Creswell & Creswell, 2018). The components outlined here followed the guidance of the Walden Institutional Review Board (IRB) application.

Treatment of Human Subjects

In this study, the participants were identified with the assistance of the state's nursing facility licensure offices in CMS Region 8. I did not use agencies or professional organizations to gather a list of participants, therefore, no agreements were required to

conduct this study. I directly contacted each DON or indirectly contact the DON via NHA e-mail with directions to access an online survey database for additional information and participation. The purpose of the study, informed consent including the risks and benefits of participation in the study, inclusion/exclusion criteria, and the survey questions were described in the recruitment material or via the online link. I obtained Walden IRB approval (# 07-10-19-0349986) prior to contact with any survey participants. I minimized the ethical concerns through my recruitment materials and did not require the participation of vulnerable populations. The recruitment materials were reviewed for appropriate language and bias. The recruitment material described the participant's right to withdrawal or exit the survey at any time, without recourse. The demographic, environmental, and personal characteristics of participants was planned to minimize risk to the target population of the study. I have professional relationships with a small group within the target population. I included a statement describing the steps and processes to assure the anonymity of participants and that there was no perceived risk of retaliation because of declining participation, the perceived desirability of responses, or a breach of confidentiality.

Treatment of Data

I collected data anonymously via an online survey. The survey software had a feature that separated the participants' e-mails and identification from the research data so data collection was anonymous. In addition, participants were not asked personally identifiable information. Confidentiality of data were maintained through data analysis procedures. The raw data were maintained on my personal computer and external hard

drive both of which were password protected and accessible only to me. I will keep the data for 5 years as defined by the Walden University IRB. Access to the raw data is only available to my dissertation committee chair upon request.

I had no conflict of interest in this study. I did not directly supervise directors of nursing identified in the states of CMS Region 8. In those nursing homes where there are professional working relationships, I disclosed my role in the recruitment and informed consent procedures. I used a small financial incentive to recruit participants. I did not use sponsorships to assist in recruitment. The recruiting procedure made an appeal to the good will of DONs to contribute to the professional nursing community, the LTC industry in understanding the crisis of DON turnover and limited tenure.

Summary

In this chapter, I discussed the research design and methodology used in understanding the perceptions of role conflict, role ambiguity, LMX, AOC, and ITS of the LTC DON in CMS Region 8. I began the chapter describing the study design and the rationale to use a quantitative, correlational, single-stage survey design. I also provided the defined population and how the sample was identified. The procedures for recruitment, participation, and data collection described the number of participants needed for valid statistical analysis as well as the process by which I provided informed consent, survey access, and follow up to the participants. Study variables and their corollary survey instruments were discussed for appropriateness to the study and the validity of the construct to the current study. Finally, the data analysis plan, threats to validity, and the ethical procedures necessary for safe and reliable research were

discussed. The related appendices provided detailed information on questionnaires, permissions, instrumentation, and recruitment procedures. The determination of the most appropriate research design and methodology, as provided here, defined the procedures and actions for me to move onto the research process itself.

In Chapter 4, I will discuss the results of the data analysis. I will provide the process for data collection, the results of the demographic and instrumentation, and validity. I will conclude Chapter 4 in a summary of the key findings.

Chapter 4: Results

Introduction

In this chapter, I discuss the data collection procedures and the time frame of data collection. I will also provide the results of the study, as analyzed through statistical testing, to answer the research questions. The purpose of the quantitative, descriptive, comparative study was to determine if there is a difference between the levels of AOC and ITS mediated by LMX in DONs with high versus low levels of role conflict and role ambiguity.

The research questions and hypotheses were:

Research Question 1: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict?

$H_0$1: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

$H_1$1: There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role conflict compared to those with low levels of role conflict.

Research Question 2: What is the difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity?

$H_0$2: There is no difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.

$H_1$2: There is a difference between the level of affective organizational commitment and intent to stay mediated by LMX in long-term care directors of nursing with high levels of role ambiguity compared to those with low levels of role ambiguity.

Data Collection

Time Frame

Data were collected from July 16, 2019 through August 20, 2019. I recruited DONs via direct e-mailing, indirect e-mailing via the NHA, and via social media using personal Facebook and LinkedIn accounts and sharing of the survey link by contacts within these accounts. Three reminders were completed for all methods of recruitment during Weeks 2, 3, and 5 of the data collection period. Response rates varied by week with the largest number of responses occurring in the final week of recruitment.

Data Collection Plan

I completed data collection within CMS Region 8 (i.e., Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming). There are 640 nursing homes across CMS Region 8 as assessed by each state's facility online directory. Anticipating the 32% turnover as suggested in previous research (Hunt et al., 2014; Rao, 2013), approximately 429 DONs could have been expected to participate.

The sample size for my study was determined using G*Power, indicating 74 participants were necessary for statistical power for MANCOVA. At the close of the survey, 136 participants had accessed the survey. A total of 128 participants met the inclusion criteria with 128 participants completing the demographic and environmental questions and 126 participants completing the full survey. Participant were asked to complete two questions to meet the inclusion criteria and one question asked for agreement to participate. Those participants who met criteria and responded, "yes, I agree to participate," were given access to the additional 47 questions specific to the study: 11 demographic questions, three environmental questions, and the 33 questions focused on the four psychometric instruments (i.e., the RCS and RAS, LMX7, ACQ, and ISS). The completion time for participants was estimated to be less than 15 minutes; actual completion time averaged 7 minutes.

The data collection plan was followed as discussed in Chapter 3 with the following exceptions. First, discrepancies in the proposed plan arose for returned e-mail addresses. I did not directly contact the facility, NHA, or DON by phone to obtain a different e-mail address or an updated contact name for the DON. A second discrepancy

was that recruitment reminders were not sent at the beginning of Weeks 3 and 4 but rather during Weeks 4 and 5 as a result of low response rates and the effort to acquire more completed surveys prior to exhausting the reminder component of recruitment process. The delay in sending the reminders allowed for guidance and communication with committee members and IRB staff regarding additional recruitment opportunities to engage participants. The third discrepancy, to the data collection plan, was the method of gift card distribution. Upon completion of the survey, participants were directed to an external website to provide a postal address in which to mail the $5 gift card. The website was accessed by participants who primarily used personal e-mail addresses. A large number of participants indicated the gift card code but did not provide additional information. E-mail correspondence with one participant, via the external website, identified hesitancy to provide a postal address for sending the gift card in the assurance of full anonymity. The process for sending the gift card via postal mail occurred for four participants between July 19 and August 11, 2019. Gift card distribution was conducted via electronic method to 72 other participants between August 14 and August 22, 2019, who submitted a request for the gift card. There were no report of adverse events resulting from participation in the study.

A final discrepancy occurred concerning the recruitment processes. First, I used a partner organization to obtain NHA e-mail addresses in one state. Second, social media was used to recruit DONs in the states where e-mail addresses for the DON or NHA were not available. A letter of cooperation and agreement to use social media were included

with the initial Walden University IRB approval process and permission to conduct the study I obtained.

Descriptive Statistics and Demographic Characteristics

In my study, the demographic and environmental questions were guided by previous literature on DONs and study variables (Krause, 2012; Rao, 2013; Siegel et al., 2010; Siegel et al, 2012). The inclusion criteria questions defined participants as a DON employed in a facility in CMS Region 8 for 3 months or greater are were guided by the research design. Additional demographic questions aided in identifying characteristics of the DON participants to inform comparison or correlation with previous research on DON experiences of the independent, mediating, and dependent variables of role conflict and role ambiguity, LMX, and AOC and ITS, respectively (Matta et al., 2015; Mayfield & Mayfield, 2007; Postmes et al., 2001; Rao, 2013; Siegel et al, 2012).

The demographic and environmental questions addressed personal, professional, and environmental characteristics of the DONs and their work environment. DON personal and professional characteristics included (a) gender, (b) age, (c) highest educational attainment, (d) employment in years as RN, DON, DON current role, (e) hire into DON position, (f) specialty nursing certification, (g) professional association membership, and (h) CMS Region 8 employment. The environmental characteristics included (a) geographical area, (b) facility ownership status, and (c) facility bed size

Personal characteristics. The personal characteristics (i.e., gender, age, and highest education) are reported in Table 2. Of the DONs sampled, 75% were female and 25% were male. The majority of participants were between the ages of 36–50 years old

(60.9%) with an equal distribution of those 20–35 years of age (20.3%) and those 51–65 years of age (18.8%). No participants identified themselves as greater than age 65. A total of 57% of the participants held a BSN (i.e., 38.3%) or MSN (i.e., 18.8) degree. The percentage of DONs whose highest educational attainment was an AD was 20%. In my study, participants also indicated the highest degree in a field other than nursing attained of a bachelor's (i.e., 16.4%), master's (i.e., 3.9%), and doctoral (i.e., 2.3%) degrees. Three participants (i.e., 2.3%) selected the response of doctorate or PhD, but their focus was not specified. The study finding, from the data analysis, indicates that up to 80% of participants could have had exposure to leadership principles through their academic institutions. Specific to the DON role, the requirement by CMS is an RN degree; therefore, in addition to the 20% indicating their highest degree as an AD, there may be up to 40%, of the sampled participants, who hold the minimum clinical requirement of an AD in nursing.

Professional characteristics. The DONs' professional characteristics including length of time as an RN, time spent in the DON role, and how an individual was hired into the DON role have also been discussed in regard to DON professional preparation and turnover (see Table 3; Fleming & Kayser-Jones, 2008; Rao, 2013). In this study, the majority of participants (i.e., 61.7%) indicated employment as an RN between 4–15 years, with 6.3% of DONs employed as an RN for < 1–3 years, and 32% employed as an RN for 16 or more years. The participants were asked the number of years employed as DON in any facility. The largest segment of participants served as DONs for 4–7 years

Table 2

DON Personal Characteristics

	Category	Frequency (*n*)	Percentage (%)
Gender	Male	32	25
	Female	96	75
Age	20–35	26	20.3
	36–50	78	60.9
	51–65	24	18.8
Highest education	AD	26	20.3
	BSN	49	38.3
	BS other	21	16.4
	MSN	24	18.8
	MS other	5	3.9
	Doctorate/PhD	3	2.3

Note. $N = 128$. AD = associate degree, BSN = bachelor of nursing, BS = bachelor degree, MSN = masters of nursing, MS = master degree, and PhD = doctorate of philosophy.

(i.e., 29.7%), closely followed by 8–10 years (i.e., 28.9%), and 1–3 years (i.e., 24.2%). The participants were also asked if they served in the DON role in any facility; 13.3% of participants indicated DON roles in any facility of >10 years, while 3.9% (i.e., five) held the DON role in any facility > 3 months but < 1 year. In follow-up to total years employed in any DON role, participants were asked to indicate number of years in their current DON role. The majority of DONs in the sample indicated the years in their current DON role of 4–7 years (i.e., 39.4%), closely followed in percentage by 1–3 years (i.e., 27.3%), 8–10 years (i.e., 17.2%), > 10 years (i.e., 8.6%), and 7% for those in a.

Table 3

DON Professional Characteristics

	Category	Frequency (*n*)	Percentage (%)
Years employed as RN			
	<1 years	1	0.8
	1–3 years	7	5.5
	4–7 years	24	18.8
	8–10 years	30	23.4
	11–15 years	25	19.5
	16–20 years	19	14.8
	21–25 years	9	7
	26–30 years	6	4.7
	> 30 years	7	5.5
Years as DON in any facility			
	> 3 months, < 1 year	5	3.9
	1–3 years	31	24.2
	4–7 years	38	29.7
	8–10 years	37	28.9
	> 10 years	17	13.3
Years DON in current role			
	> 3 months, < 1 year	9	7
	1–3 years	35	27.3
	4–7 years	51	39.8
	8–10 years	22	17.2
	> = 10 years	11	8.6
Previous DON in other facility			
	Yes	77	60.2
	No	51	39.8
Internal hire from staff RN to DON			
	Yes	74	57.8
	No	54	42.2

Note. $N = 128$.

current DON role of > 3 months but < 1 year. The total of DONs with 3 years or less of current DON employment was 34.3%. Previous employment as a DON in other facility showed 77 participants (i.e., 60.2%) had experience in the DON role, while 51 participants (i.e., 39.8%) indicated the current facility being their first DON position. Participants were also asked to indicate if they were hired within their current facility

from staff RN into the DON role. The majority of participants, 74 (i.e., 57.4%) responded affirmatively, while 54 participants (i.e., 42.2%) indicated being hired externally into their current DON role. The questions relating to previous employment as DON in another facility and internal hire from staff RN to DON in same facility were taken from leadership, organizational commitment, and ITS literature and will be further discussed in Chapter 5

The final DON characteristics address professional affiliations of the DON and the support mechanisms that have been shown to foster DON preparedness and development (Corazzini, 2012; Rao, 2013; Siegel et al., 2010). Of the 128 participants completing the demographic and environmental questions, 76.6% indicated specialty nursing certification, while only 23.4% indicated they had no specialty nursing certification. The frequency of specialty nursing certification (see Table 4) shows an increase in the number of clinical (i.e., American Association of Nurse Assessment Coordinators [ANCC]; Association of Professional in Infection Prevention and Epidemiology [APIC]; Gerontological Nursing Certification [GNC]) and leadership (National Association of Directors of Nursing Administration/Long Term Care [NADONA]; Nurse Executive Certification [BC_N]) certifications in this sample than from previous studies (see Rao, 2013; Siegel et al., 2010). However, the responses suggest a continued unequal dispersion of specialty certifications between clinical expertise (i.e., 50.7%) and leadership development (i.e., 20.3%). Membership in state and national professional associations offered DONs perspectives from outside their current facility processes and practices (see Rao, 2013: Siegel et al., 2010). Participants largely

showed membership within a professional association with 104 (i.e., 81.3%) indicating membership while 23 participants (i.e., 18%) indicating no professional membership.

Table 4

DON Professional Affiliations

	Category	Frequency (*n*)	Percentage (%)
Specialty nursing certification	ANCC	15	11.7
	APIC	30	23.4
	NADONA	15	11.7
	GNC	20	15.6
	BC_N	11	8.6
	No Certification	30	23.4
	Other*	7	5.5
Professional association membership	Yes	104	81.3
	No	23	18
	prefer not to answer	1	0.8

Note. N= 128. ANCC = American Association of Nurse Assessment Coordinators, APIC = Association of Professional in Infection Prevention and Epidemiology, NADONA = National Association of Directors of Nursing Administration/Long Term Care, GNC = Gerontological Nursing Certification, BC_N= Nurse Executive Certification.

Environmental characteristics. Environmental characteristics, in my study, included geographical location, facility ownership status, and facility bed-size. The characteristics assist to identify representativeness of the population along with factors shown to effect DON role preparedness and development within the constructs of leadership, organizational commitment, and ITS. Table 5 provides the descriptive statistics, frequencies, and percentages for each category. The sampling includes 76 participants from urban and 51 participants from rural geographical locations. Table 5

also provides the representation of for-profit, not-for-profit, and government facilities (i.e., 45.7%, 50.4% and 3.9%), respectively. Chain versus nonchain affiliation was indicated at 60.7% and 34.6%, respectively. The bed-size of the facilities was equally distributed between two main groups; those 50 – 100 beds (31.5%) and those with 101-150 beds (32.3%). The remainder of the sample indicated bed sizes of less than 50 beds (i.e., 11.8%), 151-200 beds (i.e., 16.5%), and greater than 201 beds (i.e., 7.9%).

Table 5

DON Environmental Characteristics

	Category	Frequency (*n*)	Percentage (%)
Geographical area			
	Urban	76	59.8
	Rural	51	40.2
Ownership status			
	For profit, nonchain	16	12.8
	For profit, chain	42	33.1
	Not-for-profit, nonchain	28	22
	Not-for-profit, chain	35	27.6
	Government	5	3.9
	Other*	1	0.8
Bed size			
	< 50 beds	15	11.8
	51-100	40	31.5
	101-150	41	32.3
	151-200	21	16.5
	>201	10	7.9

Note. N = 128. * not-for-profit, managed by chain, owned by Board

Representativeness. The largest number of responses from participants were

from 3 of the 6 states in CMS Region 8 (see Table 6). Direct e-mail to the DONs in North Dakota may have attributed to this state having the largest response rate (i.e., 40), while the responses from South Dakota (i.e., 28) and Montana (i.e., 26) may be attributed to social media recruitment via Facebook and LinkedIn contacts. Participants from Wyoming (i.e., 8) and Utah (i.e., 14) were recruited via NHA e-mail addresses, suggesting minimal effectiveness using this type of recruitment method. The responses from Colorado (i.e., 11) was attributed to participants and social media contacts sharing the study link with others, as requested in all recruitment flyers and communications.

Table 6

CMS Region 8 State of Employment

	Category	Frequency (*n*)	Percentage (%) of sample	# facilities by state	Percentage (%) by state
State where employed	Colorado	11	8.6	226	5
	Montana	26	20.3	83	31
	North Dakota	40	31.3	80	50
	South Dakota	28	21.9	111	25
	Utah	14	10.9	102	14
	Wyoming	8	6.3	38	21

Note. N = 125. ** 1 participant indicated not employed in any state listed, data was kept due to meeting initial inclusion criteria

Results

In this section, I will address the descriptive statistics and the statistical analysis of survey instruments. The section will present the results of statistical analysis findings for each research question and hypotheses including post hoc testing and additional

statistical tests utilizing table and figures to display results. I will conclude the section with a summary of key finding of my study.

Descriptive Statistics

In my study, statistical analysis for the predictor variables (i.e., role conflict and role ambiguity), the mediating variable (i.e., LMX), and the outcome variables (i.e., AOC and ITS) was operationalized using the four psychometric standardized instruments: Role Questionnaire (i.e., RCS and RAS, using role conflict and role ambiguity as separate constructs) LMX7, ACQ, and ISS. Reliability was assessed utilizing Cronbach's alpha for each instrument (see Table 7). I conducted a visual inspection of the individual questions comprising each scale for this study. Visual inspection revealed the strongest Cronbach's alpha when all items are included in scale.

Role conflict. The predicator variable of role conflict was operationalized using the 8- item Likert scale of the RCS (Rizzo et al., 1970). For this study, reliability of RCS using Cronbach's alpha was measured α = .833; initial validity was measured by Rizzo et al. (1970) across two sampled populations from a manufacturing plant; (a) central office and main plant personnel at α = .816 and (b) research and engineering personnel at α = .820. The variable was dichotomized for statistical analysis into high and low levels of role conflict. The a priori cut point of the composite score of 35 or less was considered low role conflict and a cut point of the composite score of 36 and greater was considered high role conflict. The negatively worded questions, measured by higher composite scores, reflected higher agreement with the construct of role conflict.

Role ambiguity. The predictor variable of role ambiguity was operationalized using the 6-item Likert scale of the RAS (see Rizzo et al., 1970). Reliability testing of RAS for this study measured α = .790 (see Table 7); initial study by Rizzo et al. (1970) measured Cronbach Alpha across the two sampled populations discussed above; (a) measured α =.780 and (b) measured α =.808. The variable was dichotomized for statistical analysis into high and low levels of role ambiguity. The a priori cut point of the composite score of 21 or less indicated high role ambiguity and a cut point of the composite score of 22 and greater was considered low role ambiguity. Scale questions are positively worded therefore, a lower composite score was indicative of higher levels of role ambiguity.

Leader-member exchange. The mediating variable LMX was operationalized using the 7-item Likert scale LMX7. For this study, reliability testing of LMX measured α =. 841, with the Cronbach's alpha in previous study .86 and .84 (see Graen & Uhl-Bien, 1995). The scale was measured using an overall composite score ranging from 7 – 35, with scoring as follows (a) 30-35 = very high, (b) 25 – 29 = high, (c) 20 – 24 = moderate, (d) 15 – 19 = low, and (e) 7 – 14 = very low (Northouse, n.d.); where a higher score reflected higher quality (i.e., in group) LMX and a lower composite score was indicative of lower quality (i.e., out group) LMX (see Table 7).

Affective organizational commitment. The outcome variable of AOC was operationalized using the 5-item Likert scale ACQ. Reliability testing of ACQ measured α = .712 (see Table 7), noting previous studies with a Cronbach's alpha of .88 and .85 (see Postmes et al., 2001). The ACQ was measured using an overall composite score

ranging from 5 – 25, in which a higher score (i.e., ≥ 12.5) indicated higher AOC and a lower score (i.e., < 12.5) was indicative of lower AOC (see Table 7).

Intent to stay. The outcome variable of ITS was operationalized using the 7-item Likert scale of ISS. The reliability testing for this study measured α = .817 on the full scale, (see Table 7; i.e., .522 for the three positive items and .809 for the four negatively worded items, recoded during data cleaning procedures). The Cronbach's alpha varied from the previous studies, indicating a positive Cronbach's alpha .77 for positively worded questions and a Cronbach's alpha of .66 (see Mayfield & Mayfield, 2007) for the negatively worded questions. Overall reliability was consistent with statistical analysis of Cronbach's alpha .80 or greater (see Warner, 2013). Therefore, ISS was retained as a study variable. ISS was measured using an overall composite score ranging from 7 – 35, where a higher composite score (i.e., ≥ 17.5) for the ISS scale demonstrated higher ITS with the organization and a lower score (i.e., < 17.5) indicated lower ITS (see Table 7).

The descriptive statistics for the study variables, resulting from the generation of composite scores during the data cleaning process, revealed that overall mean scores across the survey instruments indicated moderate levels of LMX and high agreement with the constructs of AOC and ITS. The mean score of role conflict (i.e., ≤ 35) suggested low levels of role conflict and the mean score for role ambiguity (i.e., ≥ 22, where a lower score reflected higher levels of ambiguity) indicated DONs are also experiencing low levels ambiguity in their current roles.

Table 7

Descriptive Statistics for Survey Instruments and Variables

Variable	Scale	*N*	Items	Range of test scores		*M*	*SD*	α
				Potential	Observed			
Role conflict	RCS	126	8	7 - 56	10 - 55	31.42	9.134	.833
Role ambiguity	RAS	126	6	7 - 42	13 - 42	30.43	6.096	.790
LMX	LMX-7	126	7	7 - 35	9 - 35	24.52	5.062	.841
AOC	ACQ	126	5	5 - 25	10 - 25	19.46	3.177	.712
ITS	ISS	126	7	7 - 35	10 - 35	23.69	5.15	.817

Note. LMX = leader-member exchange, AOC = affective organizational commitment, ITS = Intent to stay, RCS = Role conflict subscale, RAS = Role ambiguity subscale, LMX-7 = Leader-member exchange 7-item version, ACQ = Affective commitment questionnaire, ISS = Intent to stay scale

Statistical Analysis of Research Question 1

For my study, I conducted an analysis to ascertain if there was difference between the level of AOC and ITS, mediated by LMX, for DONs with high levels of role conflict compared to those with low levels of role conflict. Testing for the analysis included Pearson's Correlation, a one-way MANCOVA, and multivariate linear regression. In this section, I provide the results of the analysis for Research Question 1.

Correlation. Preliminary analysis of Pearson's correlation showed linear relationships with all variables, however, the test for normality was violated with significant Shapiro-Wilk test *($p < .05$)* (see Laerd Statistics, 2018a). A Spearman's rank-order correlation was run to assess the relationship between AOC, ITS, LMX, and role conflict in DONs from CMS Region 8 (see Laerd Statistics, 2018b). The relationship was assessed to be monotonic, as assessed by visual inspection of a scatterplot. There was a

statistically significant correlation between AOC, ITS, and LMX. There was a medium positive correlation between AOC to ITS, r_s = .494, p = .000. AOC showed a strong positive relationship to LMX with r_s = .5.76, p = .000. There was not a significant relationship between AOC and role conflict, r_s = .127, p =.156. There was a medium positive correlation between ITS and LMX, r_s = .479, p = .000. The correlation between ITS and role conflict was not significant. Table 8 shows the correlation between study variables.

Table 8

Spearman's Rank-Order Between Variables (RQ1)

	AOC	ITS	LMX	RC
AOC	1	.494**	.576**	0.127
ITS	.494**	1	.479**	0.081
LMX	.576**	.479**	1	-0.062
RC	0.127	0.081	-0.062	1

**. Correlation is significant at the 0.01 level (2-tailed)
Note. AOC = affective organizational commitment, ITS = intent to stay, LMX = leader-member exchange, and RC = role conflict

MANCOVA. A one-way MANCOVA was performed to determine the effect low and high levels of role conflict on AOC and ITS mediated by LMX. The basic assumptions of MANCOVA were met: (a) two or more dependent variables measured at the continuous level, (b) an independent variable measured at the categorical level, (c) a covariate measured at the continuous level, and (d) independence of observations of each

group of the independent variable (see Laerd Statistics, 2017). Additional assumptions for MANCOVA were tested with the following results (see Laerd Statistics, 2017). There was a linear relationship between AOC and ITS for each role conflict group, as assessed by visual inspection of a scatterplot. There was a linear relationship between the covariate, LMX, and each of the independent variables of AOC and ITS. The assumption homogeneity of regression slopes was assessed by the interaction term between role conflict and LMX, $F(2, 121) = .942$, $p = .027$ (see Laerd Statistics, 2017). The assumption of homogeneity of regression slopes was violated with a statistically significant interaction between role conflict and LMX, therefore MANCOVA was not an appropriate test. The null hypothesis was accepted which indicated there was no difference in the levels of AOC and ITS mediated by LMX for DONs with high versus low levels of role conflict.

Follow up data analysis included the Mann-Whitney U test as there was violation of homogeneity of regression slopes identified during testing of assumptions for the one-way ANCOVA and ANOVA (see Laerd Statistics, 2015a). The Mann-Whitney U test was conducted for each of the outcome variables. A Mann-Whitney U test was run to determine if there was a difference in AOC between low ($n = 84$) and high ($n = 42$) levels of role conflict. Distribution of the ACQ for low and high role conflict were similar, as assessed by visual inspection. There was no significant difference between low (20) and high (20) levels of role conflict, $U = 1938$, $z = .902$, $p = 0.155$ in the median AOC score. A Mann-Whitney U test was then run to determine if there was a difference in ITS between low and high levels of role conflict. Distribution of ITS for low and high role

conflict were similar, as assessed by visual inspection. There was no significant difference between low (22.5) and high (24.5) levels of role conflict, $U = 1938$, $z = .902$, $p = 0.367$ in median ITS.

Multivariate linear regression. Multivariate linear regression was run to predict AOC and ITS to role conflict and LMX. Laerd Statistics (2015b) was used to test the assumptions and report results. Two separate tests were conducted to isolate the dependent variables of AOC and ITS. In this section, I provide the results of multivariate linear regression testing.

Affective organizational commitment. The initial assumptions for multiple regression were met: (a) there was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values; (b) there was independence of residuals, as assessed by a Durbin-Watson statistic of 2.199; (c) there was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicated values (see Figure 2); and (d) there was no evidence of multicollinearity as assessed by tolerance values greater than 0.1 (i.e., tolerance of .956 for each variable). There was one studentized deleted residuals greater the ±3 standard deviations, however, this outlier was kept in model and will be addressed in Chapter 5. The final assumption was met; there was no leverage values greater than 0.2, and values for Cooks' distance were above 1.

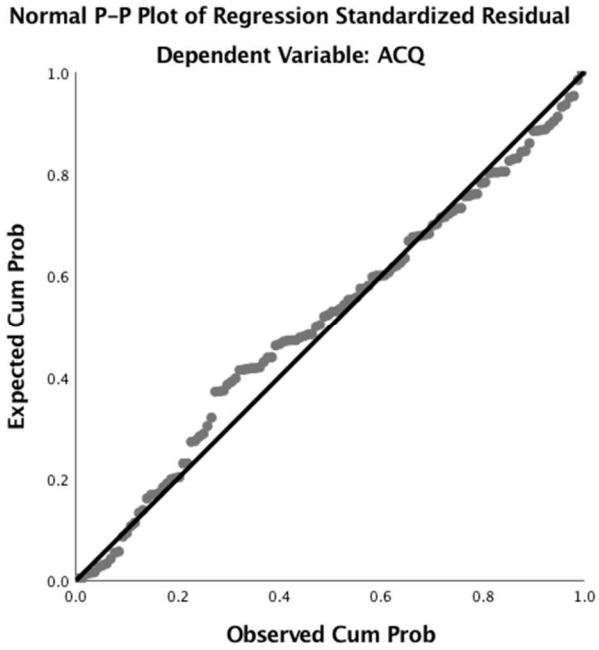

Figure 2. Homoscedasticity of AOC (RQ1). This figure shows the predicted relationship of role conflict and LMX to AOC

The assumption of normality was met, as assessed by the Q-Q Plot. The model fit showed a positive medium effect size of .638. The multiple regression statistically significantly predicted AOC, $F(2, 123) = 25.061$, $p = .000$, adj. $R^2 = 27.8$. The results of the regression for AOC to role conflict and LMX explained 28% of the variance. LMX added statistically significantly to the predication, where one unit of increase in the LMX composite score increased the AOC composite score by .34, $p = .000$. Role Conflict did not significantly predict AOC. Regression coefficients, standard errors, and confidence intervals can be found in Table 9.

Intent to stay. The assumptions for ITS were met: (a) there was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values; (b) there was independence of residuals, as assessed by a Durbin-Watson statistic of 2.043. There was homoscedasticity, as assessed by visual inspection

of a plot of studentized residuals versus unstandardized predicated values (see Figure 3). There was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1 (i.e., tolerance of .956 for both variables) and there was no studentized deleted residuals greater the ±3 standard deviations, no leverage values greater than 0.2. The final assumption was met with the values for Cooks' distance above 1.

Table 9

Summary of AOC to Role Conflict and LMX

Variable	ß	SE_b	*ß*	*t*	*p*	95% Confidence Interval	
						Lower	Upper
Intercept	10.545	1.624		6.491	.000	7.329	13.76
Role conflict	.016	.027	.047	.605	.547	-.037	.070
LMX	.343	.049	.546	7.023	.000	.246	439

Note. N =126. LMX = Leader-member exchange

The assumption of normality was met, as assessed by the Q-Q Plot. The model fit showed a positive medium effect size of .524. The multiple regression statistically significantly predicted ITS, $F(2, 123) = 23.299$, $p = .000$, adj. $R^2 = 26.3$. The results of the regression for ITS to role conflict and LMX explained 26% of the variance. LMX added statistically significantly to the predication, for one unit increase in the LMX composite score, the ITS composite score increased by .48, $p = .000$. Role Conflict did not significantly predict ITS. Regression coefficients, standard errors, and confidence intervals can be found in Table 10.

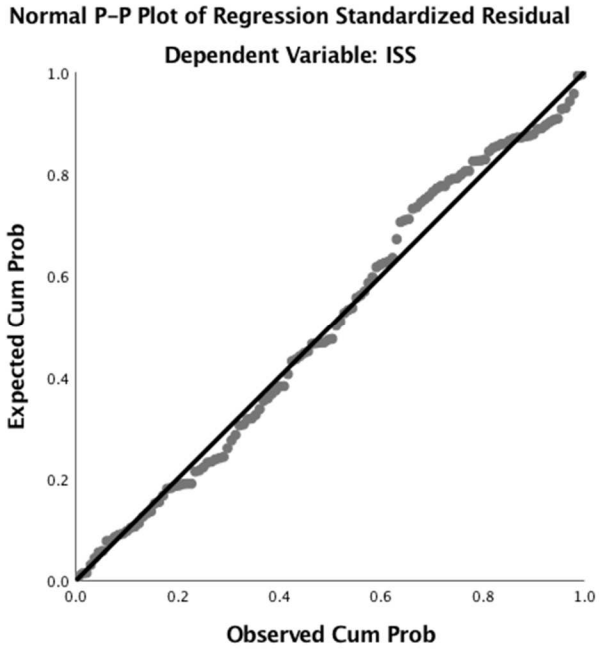

Figure 3. Homoscedasticity of ITS (RQ1). This figure shows the predicted relationship of role conflict and LMX to ITS

Table 10

Summary of ITS to Role Conflict and LMX

Variable	ß	SE_b	*ß*	*t*	*p*	95% Confidence Interval	
						Lower	Upper
Intercept	14.298	2.661		5.374	.000	9.031	19.564
Role conflict	-.079	0.044	-.140	-1.789	.076	-.167	.008
LMX	0.484	0.08	.476	6.064	.000	.326	.643

Note. N= 126. LMX = Leader-member exchange

Statistical Analysis of Research Question 2

For my study, I conducted an analysis to ascertain if there was difference between the level of AOC and ITS, mediated by LMX, for DONs with high levels of role ambiguity compared to those with low levels of role ambiguity. Testing for the analysis

included Pearson's Correlation, a one-way MANCOVA, and multivariate linear regression. In this section, I provide the results of the analysis for Research Question 2.

Correlation. Preliminary analysis of Pearson's correlation showed linear relationships with all variables, however, the test for normality was violated with significant Shapiro-Wilk test ($p < .05$) (see Laerd Statistics, 2018a). A Spearman's rank-order correlation was run to assess the relationship between AOC, ITS, LMX, and role ambiguity in DONs from CMS Region 8 (see Laerd Statistics, 2018b). The relationship was assessed to be monotonic, as assessed by visual inspection of a scatterplot. There was a statistically significant correlation between AOC, ITS and LMX. There was a medium positive correlation between AOC to ITS, $r_s = .494$, $p = .000$. AOC showed a significant medium positive relationship to LMX with $r_s = .576$, $p = .000$. There was a significant small negative relationship between AOC and role ambiguity, $r_s = -.304$, $p = .001$. There was a medium positive correlation between ITS and LMX, $r_s = .479$, $p = .000$. There was a significant small negative relationship between LMX and role ambiguity, $r_s = -.311$, $p = .000$. The correlation between ITS and role ambiguity was not significant. Table 11 shows the correlation between study variables of Research Question 2.

MANCOVA. A one-way MANCOVA was used to determine the effect low and high levels of role ambiguity on AOC and ITS mediated by LMX. The basic requirements of MANCOVA were met: (a) two or more dependent variables measured at the continuous level, (b) independent variable measured at the categorical level, (c) a covariate measured at the continuous level, and(d) independence of observations of each

Table 11

Spearman's Rank-Order Between Variables (RQ2)

	AOC	ITS	LMX	RA
AOC	1	.494**	.576**	-.304**
ITS	.494**	1	.479**	-.154
LMX	.576**	.479**	1	-.311**
RA	-.304**	-.154	-.311**	1

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

Note. AOC = affective organizational commitment, ITS = intent to stay, LMX = leader-member exchange, and RA = role ambiguity

group of the independent variable (see Laerd Statistics, 2017). Additional assumptions for MANCOVA were tested with the following results (see Laerd Statistics, 2017). There was a linear relationship between AOC and ITS for each role ambiguity group, as assessed by visual inspection of a scatterplot. Visual inspection identified a linear relationship between the covariate, LMX, and the outcome variables of AOC and ITS. Homogeneity of regression slopes was assessed by the interaction term between role ambiguity and LMX, $F(2, 121) = .928$, $p = .011$. The assumption of homogeneity of regression slopes is violated with a statistically significant interaction between role ambiguity and LMX, therefore MANCOVA was not an appropriate test. The null hypothesis was retained so there was not a difference in the levels of AOC and ITS mediated by LMX for DONs with high versus low levels of role ambiguity.

Because there was violation of homogeneity of regression slopes identified during testing of assumptions for the one-way ANCOVA and ANOVA, I calculated a Mann-Whitney U test for each outcome variable (Laerd Statistics, 2015a). A Mann-Whitney U

test was run to determine if there was a difference in AOC between low (n = 113) and high (n = 13) levels of role ambiguity. Distribution of the ACQ for low and high role ambiguity were dissimilar, as assessed by visual inspection. AOC score for low role ambiguity (mean rank = 67.22) and high role ambiguity (mean rank = 31.15) were statistically significantly different, U = 314, z = -3.394, p = .001. A Mann-Whitney U test also was run to determine if there was a difference in ITS between low and high levels of role ambiguity. Distribution of the ISS for low and high role ambiguity were differently shaped, as assessed by visual inspection. ITS score for low role ambiguity (mean rank = 65.39) and high role ambiguity (mean rank = 47.04) was not statistically significantly different, U = 520.5, z = -1.720, p = .085.

Multivariate linear regression. Multivariate linear regression was run to predict AOC and ITS to role ambiguity and LMX. Laerd Statistics (2015b) was used to test the assumptions and report results. Two separate tests were conducted to isolate the dependent variables of AOC and ITS. In this section, I provide the results of multivariate linear regression testing.

Affective organizational commitment. The assumptions for multiple regression were met: (a) there was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values; (b) there was independence of residuals, as assessed by a Durbin-Watson statistic of 1.901; (c) there was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicated values (Figure 4); (d) there was no evidence of multicollinearity as assessed by tolerance values greater than 0.1 (tolerance of .737 for

each variable); and (e) there was no studentized deleted residuals greater the ±3 standard deviations, no leverage values greater than 0.2, and values for Cooks' distance were above 1. The assumption of normality was met, as assessed by the Q-Q Plot. The model fit showed a medium effect size of .630. The multiple regression statistically significantly predicted AOC, $F(2, 123) = 40.461$, $p = .000$, adj. $R^2 = 38.7$. The results of the regression for AOC to role ambiguity and LMX explained 39% of the variance. Role ambiguity and LMX added statistically significantly to the predication, $p < .05$.

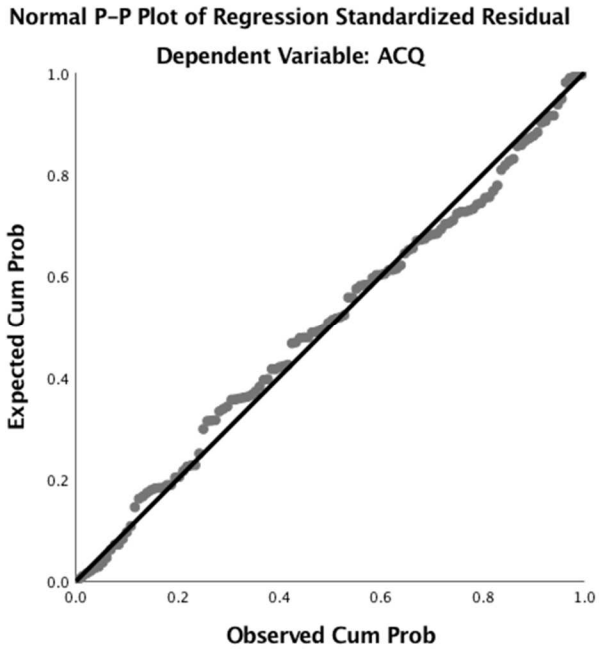

Figure 4. Homoscedasticity of AOC (RQ2). This figure shows the predicted relationship of role ambiguity and LMX to AOC.

For each unit of increase in the LMX composite score, the AOC score increased by .21, $p = .000$. For each unit of increase in the role ambiguity composite score (where higher score indicated lower levels of the construct), there was a .20 increase in AOC, $p = .000$.

Regression coefficients, standard errors, and confidence intervals can be found in Table 12.

Table 12

Summary of AOC to Role Ambiguity and LMX

Variable	ß	SE_b	*ß*	*t*	*p*	95% Confidence Interval	
						Lower	Upper
Intercept	8.143	1.277		6.374	.000	5.614	10.672
Role ambiguity	.201	0.043	.385	4.724	.000	.117	.285
LMX	.212	0.051	.338	4.146	.000	.111	.314

Note. N = 126. LMX = Leader-member exchange

Intent to stay. The assumption for ITS were met: (a) there was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values; (b) there was independence of residuals, as assessed by a Durbin-Watson statistic of 2.128; (c) there was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicated values (Figure 5); (d) there was no evidence of multicollinearity, as assessed by tolerance values greater than 0.1 (tolerance of .737 for both variables); (e) there was one studentized deleted residuals greater the ±3 standard deviations (outlier was kept in regression analysis and will be addressed in Chapter 5), no leverage values greater than 0.2, and values for Cooks' distance above 1. The assumption of normality was met, as assessed by the Q-Q Plot. The model fit showed a medium effect size of .538. The multiple regression

statistically significantly predicted ITS, $F(2,123) = 25.027$, $p = .000$, adj. $R^2 = 27.8$. The results of the regression for ITS from role ambiguity and LMX explained 28% of the variance. Role ambiguity and LMX added statistically significantly to the predication, $p < .05$. A one unit increase in the LMX composite score, each unit of ITS increased by .40, $p = .000$. And for each unit of increase in role ambiguity composite score, where a higher score indicated lower levels of the construct, there was a .18 increase in the ITS composite score, $p = .018$. Regression coefficients, standard errors, and confidence intervals can be found in Table 13.

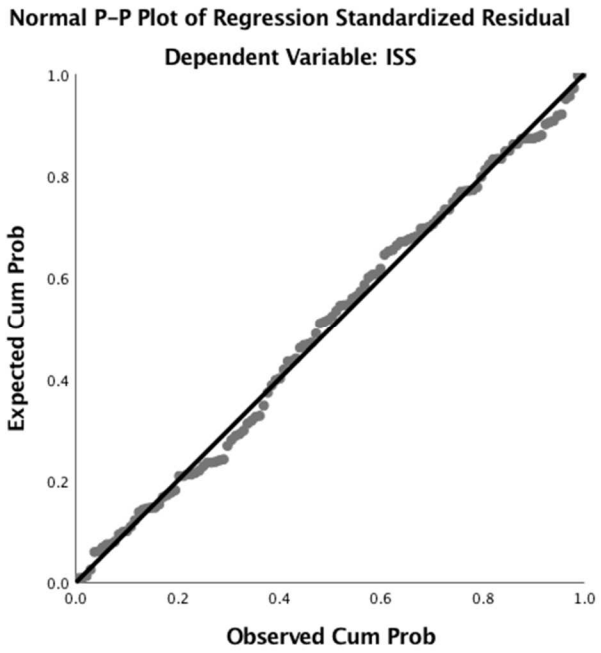

Figure 5. Homoscedasticity of ITS (RQ2). This figure shows the predicted relationship of role ambiguity and LMX to ITS.

Table 13

Summary of ITS to Role Ambiguity and LMX

Variable	ß	SE_b	*ß*	*t*	*p*	95% Confidence Interval	
						Lower	Upper
Intercept	8.326	2.248		3.703	.000	3.876	12.776
Role ambiguity	.18	.075	.213	2.402	.018	.032	.328
Leader-member exchange	.403	0.09	.397	4.478	.000	.225	.582

Note. N = 126.

Summary

In this chapter, I provided the analysis of the quantitative, descriptive, comparative study which surveyed 126 DONs from CMS Region 8. Descriptive statistics captured DON personal, professional, and environmental characteristics. The sample was primarily female, between the ages of 36-50 who hold a bachelor's degree or higher with the largest responses from DONs in North Dakota, South Dakota, and Montana.

The first research question was: what is the difference between the level of AOC and ITS mediated by LMX in LTC DONs with high levels of role conflict compared to those with low levels of role conflict? The assumptions of MANCOVA were not met and the null hypothesis was accepted; there was no difference between the level of AOC and ITS mediated by LMX in LTC DONs with high levels of role conflict compared to those with low levels of role conflict. Follow up analysis was conducted. Spearman's rank order showed statistically significant correlations between AOC and ITS, AOC and LMX, and a statistically significant correlation between ITS and LMX. A Mann-Whitney

U showed there was no significant difference in levels of AOC and ITS between low and high levels of role conflict. Finally, the multiple regression showed role conflict and LMX explained 28% of the variance of the levels of AOC with only LMX significantly contributing to the predication. Role conflict and LMX explained 26% of the variance of levels of ITS with only LMX significantly contributing to the prediction.

The second research question was: what is the difference between the level of AOC and ITS mediated by LMX in LTC DONs with high levels of role ambiguity compared to those with low levels of role ambiguity? The assumptions for MANCOVA were not met and the null hypothesis was accepted; there is no difference between the level of AOC and ITS mediated by LMX in LTC DONs with high levels of role ambiguity compared to those with low levels of role ambiguity.

Follow-up analysis showed statistically significant correlations between AOC and (a) ITS, (b) LMX, and (c) role ambiguity, respectively. There was also a statistically significant relationship between ITS and LMX. A Mann-Whitney U test showed AOC score was statistically significantly different in mean rank scores for low role ambiguity and high role ambiguity. The results showed there was no significant difference in mean rank scores for low/high role ambiguity and ITS. The multiple regression showed role ambiguity and LMX significantly explained 39% of the variance in AOC scores with both predictor variables contributing significantly to the prediction. Role ambiguity and LMX contributed to 28% of the variance in ITS with both predictor variables significantly contributing to the prediction.

In Chapter 5, I will interpret the findings compared to the literature and analyze them using the theoretical foundations of role theory and social exchange theory. I will address study limitations and recommendations for future research and practice. I will conclude Chapter 5 discussing the impact of my study may contribute towards positive social change and improving a DON's AOC and ITS.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to determine the influence role conflict and role ambiguity, mediated by LMX, had on the LTC DONs' AOC and ITS. Researchers and academia found personal and professional characteristics, environmental characteristics, and the relationships and values within and for the organization independently contributed to a DON's role conflict and role ambiguity (Castle & Lin 2010; Graen & Uhl-Bien, 1995; Krause, 2012; Matta et al., 2015; Rao, 2013; Siegel & Sikma, 2015; Siegel et al., 2012; Tremblay et al., 2017; Trinkoff et al., 2015). Similarly, Siegel and Sikma (2015) and Siegel et al. (2012) identified the complex nature of individual LTC facilities and the LTC industry contributed to the DON turnover and limited tenure. In this study, I addressed the gap in the literature towards recognizing how individual DON characteristics might influence the DON's role preparedness and relationships with leadership. These individual DON characteristics also have the potential to influence the DON's perceptions of AOC and ITS. The quantitative, descriptive, comparative study design was an appropriate method and design because quantitative research is consistent with the use of a theoretical foundation to guide the research questions and designed to understand the relationships of DON and environmental characteristics, leadership practices, and organizational culture for improving DON turnover and tenure.

The key findings of this study include the topics of role conflict, role ambiguity, and demographics. The results of data analysis revealed there was no difference between levels of AOC and ITS, mediated by LMX, for LTC DONs in CMS Region 8 with high

versus low levels of role conflict or role ambiguity. Further, the results showed no correlation between role conflict and AOC or ITS. The findings did show role ambiguity had a medium negative correlation to AOC, while role ambiguity did not show a significant correlation to ITS. AOC showed a significant difference in mean rank scores between high and low scores for role ambiguity. The regression findings showed role conflict was not a significant predictor of AOC or ITS.

Conversely, role ambiguity was found to be a significant predictor of both AOC and ITS. The results also showed LMX had a strong positive correlation with AOC and a medium positive correlation with ITS. LMX significantly predicted both AOC and ITS. Stated another way, as the DON's role ambiguity decreased, AOC and ITS increased. The findings also showed that a DON's AOC and ITS increased as the LMX quality increased. Consistent with the research by Rao (2013) and Matta et al. (2009), a moderate or strong working relationship between the leader and member increased the DON's organizational commitment, likely through the provision of role clarity, goal setting and support to meet expectations, and support the DON's authority (see Rizzo et al., 1970). While ITS increased with increased quality of the LMX relationship, this correlation is not as strong as that of organizational commitment.

Demographic characteristics showed a DON workforce primarily female between the ages of 36 and 50 years old that was educated at or beyond a bachelor's degree and who held specialty certification and professional association membership. The results of this study show a different DON workforce than previous studies (see Holle et al., 2019; Hunt et al., 2012; Siegel & Sikma, 2015; Siegel et al., 2010; Rao, 2013; Rao & Evans,

2015). The characteristics suggested exposure to leadership principles and access to resources to support success in the role. The DONs in this study denoted experience in both LTC facilities and in the DON role. Additionally, a majority of the DONs were hired internally from staff RN to the DON position, suggestive of affiliation with organizational values prior to the role. Of significance, however, is that while these results imply a prepared, competent, and capable workforce, 34% were new to their role with a tenure of 3 years or less. These rates are consistent with previous researchers underpinning the DON turnover and tenure crisis leading to increased nurse turnover and decreased quality of care (Hunt et al., 2012; Rao & Evans, 2015, Siegel & Sikma, 2015).

In this chapter, I provide the interpretation of the study findings and discuss the limitations of the study. I provide recommendations for future research as well as address the impact to social change. I conclude with opportunities for industry leaders and stakeholders to improve LTC DON turnover and tenure.

Interpretation of Findings

The findings contributed to the understanding of role conflict and role ambiguity of the LTC DON's AOC and ITS. The results of this study also contributed to the understanding of the influence of the DON's perception of the LMX quality on AOC and ITS. DON turnover and limited tenure impacts the entire organization, as noted by the disruption in nurse staffing and the quality of care provided within the organization (Hunt et a., 2014; Krause, 2012). Role preparedness, competency, and capacity to lead the organization have been identified in the literature as contributing to the high levels of role conflict and role ambiguity contributing to DON turnover (Siegel & Sikma, 2015; Siegel

et al, 2012). Additionally, the LMX relationship between the DON and NHA was found to be important in the DON's ITS (see Rao, 2013). The findings of this study revealed role ambiguity and LMX, but not role conflict, contributed to a DON's AOC and ITS. The finding that LMX predicted AOC and ITS supports the research where task support contributed to DON retention and tenure (see Rao, 2013) and role ambiguity, but not role conflict, influenced Korean nurse organizational commitment and ITS (see Han et al., 2015). Additionally, Matta et al. (2015) asserted the quality of the LMX as assessed by the member could accurately identify the relationship and, therefore, predicted turnover intentions and tenure. Finally, the finding that the influence of the working relationship within LMX where the member indicates mutual respect, reciprocal trust, and interacting obligation (see Graen & Uhl-Bin, 1995) is consistent with the research by Postmes et al. (2001) where horizontal communication and the exchange of strategic information rather than social-emotional communication was found to contribute positively to organizational commitment. My study supports the assertion that the LMX relationship is a critical factor of DON tenure but does not fully explain all the considerations of a DON's turnover intention.

Role Conflict and Role Ambiguity

Role conflict and role ambiguity were operationally identified as independent constructs derived from organizational role theory where the role occupant's behavior and actions determined how the occupant entered and succeeded in the role (see Biddle, 1986; Rizzo et al., 1970). For this study, role conflict was defined as the incongruence of role expectations for the self and others based on standards of role performance,

especially when multiple roles are expected from multiple constituents (see Rizzo et al., 1907). Role ambiguity was defined as the lack of clarity of role expectations with an understanding of ramifications by others when expectations were not met (see Rizzo et al., 1970).

I did not find role conflict to be a significant predictor of AOC or ITS, consistent with the personal and professional characteristics of the DONs in this study. Previous researchers cited these characteristics as central to the DON's commitment to the organization and subsequent ITS (see Corazzini et al., 2012; Hunt et al., 2014; Rao, 2013; Rao & Evans, 2015; Siegel et al., 2010; Siegel & Sikma, 2015; Siegel et al., 2012; Siegel et al., 2015). Contrary to the findings of my study, Siegel et al. (2012) found DONs with high levels of education, resources, and experience as a DON in another organization experienced role conflict in their current role, leading to high rates of turnover and limited tenure. However, Rizzo et al. (1970) and Han et al. (2015) asserted role conflict was an expected consequence of a managerial position, and therefore, other factors would contribute to AOC and ITS. Trinkoff et al. (2015) further supported the finding concerning the DON leadership competency (i.e., low role conflict) when there was experience in LTC in the DON role or when there was alignment with organizational values. Stated another way, an experienced DON with (a) established, shared organizational values, (b) increased internal and external resources, and (c) strong leadership skills, would not experience role conflict beyond the expectations of oneself (see Biddle. 1986). The influence because of the expectations by constituents (see Biddle, 1986), would be mitigated through the DON's preparedness, leadership competency and

capacity, and the perception of LMX quality, that was demonstrated in the results of this study. The finding that AOC and ITS were not significantly related to a DON's perception of role conflict could be linked to the DON's desire to improve the quality and organizational culture via their individual personal and professional characteristics, support from the NHA, or by the existing AOC.

Role ambiguity, however, was shown to influence LMX, AOC, and ITS. Role ambiguity, or the perception of role clarity reported via the DONs' understanding of the goals, authority, responsibilities, and expectations of the role, was supported through the levels of low role ambiguity experienced by the DONs in this study. The DONs' knowledge of role function and processes to lead the organization was consistent with experience in the organization, experience in LTC, and the DONs' perception of the quality of the relationship with the NHA. Knowledge of resources and support for advocating on the behalf of staff and residents would already be known to a DON who was hired from internal to the organization or had prior experience as a DON. The LMX dimensions of mutual respect, reciprocal trust, and interacting obligation were consistent in this study where the DONs indicated a moderate level of LMX quality with the NHA.

Similarly, the ideas of Rao's (2013) task support, Mayfield and Mayfield's (2007) motivating language, and Gaudet and Trembley's (2017) initiating structure leadership supported the results of this study in which the perception of the LMX quality, as perceived by the DON, contributed to both AOC and ITS. The levels of low role ambiguity correlated with the DON having role clarity via the constructs addressed above, independently or collectively across the study variables. Of significance, was the

finding that those DONs who experienced high levels of role ambiguity displayed decreased levels of LMX quality, AOC, and ITS.

Siegel et al. (2010) described role stress comprehensively to suggest both role conflict and role ambiguity contributed to DON turnover and limited tenure. Whereas, in the current study, role conflict and role ambiguity when analyzed as separate constructs, differentiated role ambiguity independently as contributing to the DONs' AOC and ITS.

Role Theory and Social Exchange Theory

This study was based on the following two theories, which were used to describe the role of the DON in LTC: organizational role theory (Biddle, 1986; Martin & Wilson, 2005; Rizzo et al., 1970) and social exchange theory (Graen & Uhl-Bien, 1995; Sin et al. 2009).

Role theory. In this study, I utilized organizational role theory to understand DON perceptions of role conflict and role ambiguity. Organizational role theory addressed the role occupant's identification and achievement of expectations from multiple constituents (see Biddle, 1986). The advanced levels of preparedness of the DONs in this study suggested personal and professional characteristics were able to mitigate role conflict, contrary to Siegel et al. (2012), who indicated role conflict existed despite these factors. Internal factors affecting role ambiguity, such as the quality of the LMX relationship, influenced whether the DONs' previously established perceptions of organizational commitment and ITS continued. Graen and Uhl-Bien (1995) asserted that once work roles of constituents were established, they were maintained over time into routine expectations of the role. Despite this, a change in the NHA position, regulatory

requirements, or organizational structure could negatively shape DON perceptions of role ambiguity to influence their AOC and ITS.

Social exchange theory. The working relationship between the DON and NHA were considered in the selection of social exchange theory (see Graen & Uhl-Bien, 1995; Matta et al., 2015). The high rates of DON turnover and limited tenure identified in the literature alluded to minimal exposure of working relationships within the NHA/DON relationship (Hunt et al., 2014; Krause, 2012). The results of my study, in which 64% of the DONs sampled had a tenure of 4 or more years and approximately 60% were hired internally, suggest that a majority of the DONs had previous knowledge and working relationships with the NHA and the organization. This might explain why role ambiguity showed a strong correlation with AOC and LMX and only a moderate correlation with ITS and LMX. The results suggest DONs with levels of low role ambiguity (i.e., higher LMX quality) will have a stronger connection and investment with the NHA and therefore, the organization, and less so with the actual decision to leave the organization.

Limitations of the Study

The results of this study were limited by the target population, study design, instrumentation, and data analysis methods. First, this study targeted DONs in CMS Region 8, however, the methods for contacting DONs within this region were limited due to access and availability to DON contact information. One partner organization was enlisted per IRB protocol and shared NHA e-mail addresses with me for my study. There was one state that had a publically available website where DON contact names and e-mail addresses were provided. Another state had a publically available website where the

NHA e-mail addresses were posted. Three state's publically available websites listing facility names and contact information did not provide NHA or DON e-mail addresses, nor gave a specific e-mail address with which to reach these staff levels for the LTC facilities. Therefore, direct recruitment of the DON was significantly limited in 5 of the 6 states. The recruitment method requesting the NHA to share the survey, and for DONs to trust anonymity in using this method, may have contributed to the low response rates in those two of the states. Recruitment increased with the explicit communication of the $5.00 gift card in the final week of the survey. Social media and snowballing by sharing the survey link proved to be an effective route for recruitment, as shown by the response rates from Montana and South Dakota, of which I had no direct DON or NHA e-mail contact information. The results of my study cannot be generalized across the scope of CMS Region 8, nor beyond the DONs in this sample. Despite the limitation of direct recruitment, the sample size of 74 participants was achieved and allowed for statistical analysis, with the estimated 29% response rate across CMS Region 8 (i.e., 126 participants of the potential of 429 DONs).

Another limitation of the descriptive comparative study was the use of the survey methodology and design (see Creswell & Creswell, 2018). The survey design was developed from the literature and the instrumentation was selected to align with DON and environmental characteristics and the constructs of role conflict, role ambiguity, LMX, AOC, and ITS (see Graen & Uhl-Bin, 1986; Mayfield & Mayfield, 2007; Meyer & Allen, 1990; Postmes et al., 2001; Rao, 2013; Rizzo et al., 1970). Recruitment, informed consent, and survey completion time attributed to how DONs' accessed and completed

the study (see Frankfort-Nachmias et al., 2015). Time to complete the 47-question survey and maturation as participants progressed through the survey lead the selection demographic and environmental questions and the four psychometric instruments. Reliability was addressed as measured by Cronbach's alpha (see Field, 2013), which was met for all four instruments. The small number of questions for the positive responses for the ISS may have contributed to the reliability coefficient, however, the overall scale reliability coefficient indicated acceptable reliability and correlation with the scale when all questions were retained. The decision to analyze the results using the ISS results was supported by Warner (2013) in which self-assessment of perceptions of psychometric tools can be valid and reliable at around 0.6. Additional limitations with instrumentation were the correlations across LMX, AOC, and ITS as these variables may all measure similar constructs, however, instrument selection was designed to limit this possibility (see Creswell & Creswell, 2018). Role conflict and role ambiguity were measured as separate constructs from a single instrument; Role Questionnaire (see Rizzo et al., 1970) where the authors support role conflict and role ambiguity as independent constructs, with separately reported validity. Further limitations, as described by Creswell and Creswell (2018) included the survey method itself due to the nature of self-reporting and voluntary participation; therefore, limiting representativeness to other populations.

Finally, the data analysis plan may have contributed to the study results. The measurement of a single construct role stress, instead of separate constructs of role conflict and role ambiguity, may have given different results. The selection of the a priori cut points for role conflict and role ambiguity may have also contributed to the results of

the study. Rather than using mean scores for role conflict and role ambiguity, I used a higher standard of this study, measuring only the indications for agree or strongly agree (i.e., not the neutral or negative responses) which may have contributed to the study results. In this study, I calculated the composite scores, rather than the use of the Likert scale, interval level of measure which may have also contributed to data analysis and findings for LMX-7, ACQ, and ISS. My use of composite scores allowed for the measurements of means and ranges, along with analysis of regression predictability, applying a true measure that would have been limited had I used the Likert scale responses. Finally, within the data analysis plan, assumptions were violated in each of the statistical tests, requiring decision-making to continue with analysis and interpretation. First, one participant met the inclusion criteria to proceed to the study, however, indicated in the demographic section they did not work in any of the states within CMS Region 8. This case was kept due to meeting initial inclusion criteria (see Creswell & Creswell, 2018). Second, outliers were identified in the (a) Spearman's rank-order correlation and (b) multivariate linear regression. The Spearman's rank-order found outliers in ZRE scores; however, each of these was just outside the ±3 SD and therefore retained within the analysis model (see Laerd Statistics, 2018b). For multivariate linear regression, there was one studentized deleted residual case for ACQ/role conflict and one studentized deleted residual case for ISS/role ambiguity denoting an outlier just outside the parameters of greater than ±3 SD, however, as all other assumptions were met, these two cases were also retained in the data analysis (see Laerd Statistics, 2015b).

Recommendations

The findings of my study suggest there are additional factors which influence a DONs' AOC and ITS. Future studies could explore the levels of role conflict and role ambiguity and the alterations that occur over the course of a DON's tenure via on-the-job experience. This may provide evidence as to whether the DON is conforming to role expectations and perseverance, or as a direct result of obtaining a bachelor or higher degree. Future research could also consider the level of role conflict and role ambiguity experienced by a DON in correlation to the longevity of the NHA/DON relationship; the quality of care provided to residents; and the turnover of nurse staff. My study was not designed to capture these data elements; therefore, I cannot determine whether these factors contributed to the levels of LMX quality, AOC, and ITS found in this study.

Ultimately, the percent predictability of AOC and ITS suggested having a clear understanding of goals, roles, and responsibilities along with supportive NHA influenced a DON's decision-making. However, further exploration into relationships with coworkers, residents, and families in addition to research on the NHA/DON dyad together, and opportunities for advancement outside of the organization could lead to additional insight into a DON's AOC and ITS or leave (see McGilton et al., 2014; McGilton et al., 2013; Matta et al., 2015; Tremblay et al., 2017). Finally, qualitative and mixed-method research could contribute to the understanding of DON responses that could not be concluded in this study (see Creswell & Creswell, 2018).

Implications

In my study, I presented my findings that have the potential to affect positive social change for DONs, NHA, organizations, the LTC industry, and stakeholders. The results of my study demonstrated a DONs' level of role ambiguity (but not role conflict) influenced the perception of LMX quality, AOC, and ITS. The personal and professional characteristics lend themselves to DONs' advocating for role clarity, along with a recognition by NHA of the components that affect DON role clarity, could increase the DONs' organizational commitment and minimizing turnover and increasing tenure. The findings of Krause (2012) and Siegel et al. (2012) maintaining the correlation between DON tenure and nurse staffing and quality of care, combined with the results of this study, indicates that reducing a DON's role ambiguity could affect a large number of constituents within the individual organization as well as across the regulatory and LTC industry stakeholder groups.

Role theory and social exchange theory contributed to the research design and methodology and addressed the gap in the literature of role preparedness, competency, and capacity to DON turnover and tenure. The results indicated a DON workforce with advanced personal and professional characteristics that contributed to the study findings of low levels of role conflict and role ambiguity, moderate levels of LMX quality, high levels of AOC, and moderate levels of ITS.

Conclusion

In my study, I highlighted the power of DONs to overcome their predetermined course within the LTC industry. Rather than accepting roles as day-to-day operational

leaders, entrenched in role conflict and role ambiguity and unsupported by leadership who will turnover within 3 years of entry into the DON role, the DONs in this study demonstrated a new era of DON. My study findings contributed to addressing the gap in the literature showing that DONs who pursue personal and professional development combined with an organization where DONs: (a) are groomed internally, (b) have supportive NHA/DON relationships, and (c) espouse shared values with the organization, could establish the foundation for DON success in leadership competency and capacity. Where DONs, through the support of leadership and the organization, knowingly and willingly stay in their roles; to lead the nursing profession, reduce nurse staff turnover, and improve the quality of care. DONs who are the exemplars in the LTC industry.

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Appendix A: Director of Nursing and Environmental Characteristics

Characteristic	Question	Response options	Level of Measurement
DON	Gender	1 = female 2 = male	Nominal
	Age of respondent	1 = 20-35 2 = 36-50 3 = 51-65 4 = ≥66	Interval
	Highest educational level attained	1 = AD, Diploma 2 = BSN 3 = MSN 4 = DNP/PhD	Ordinal
	Years of employment as RN	1 = < 1 year 2 = 1-3 years 3 = 4=7 years 4 = 8-10 years 5 = >10 If you selected 5, enter total number of years: ____	Ordinal
	Years of employment as DON	1 = 1 2 = 2 3 = 3	Ordinal
	Years in current DON role	1 = ≥ 3 months but < 1 year 2 = 1-3 years 3 = 4=7 years 4 = 8-10 years 5 = >10 If you selected 5, enter total number of years: ____	Ordinal
	Previous employment as DON in other facility	1 = yes 2 = no	Nominal
	Internal hire from current facility directly into DON role	1 = yes 2 = no	Nominal

	Specialty certification	1 = ANCC 2 = APIC 3 = NADONA 4 = GNC 5 = BC-N 6 =other, please list _____	Nominal
	Professional organization membership	1 = yes 2 = no	Nominal
	State where respondent employed in nursing home facility	1 = Colorado 2 = Montana 3 = North Dakota 4 = South Dakota 5 = Utah 6 = Wyoming	Nominal
Environmental	Geographic area	1 = Urban 2 = Rural 3 = Unknown	Nominal
	Facility characteristics: ownership status	1 = for profit, nonchain 2 = for profit, chain 3 = not-for-profit, nonchain 4 = not-for-profit, chain 5 = government	Nominal
	Facility characteristics: size of facility	1= < 50 beds 2=51=100 beds 3=101-150 beds 4=151-200 beds 5= ≥ 201 beds	Ordinal

Appendix B: Details and Permissions for Use of the Role Questionnaire

Role Questionnaire Version Attached: Full Test

PsycTESTS Citation:
Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role Questionnaire [Database record]. Retrieved from PsycTESTS. doi.10.1037/t12100-000

Instrument Type:
Inventory/Questionnaire

Test Format:
Items are responded to using a 7-point scale ranging from "very false" to "very true.".

Source:
Rizzo, John R., House, Robert J., & Lirtzman, Sidney I. (1970). Role conflict and ambiguity in complex organizations. Administrative Science Quarterly, Vol. 15(2), 150-163. doi:10.2307/2391486, © 1970 by Johnson Graduate School, Cornell University. Reproduced by Permission of Johnson Graduate School, Cornell University.

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Publisher Permission:

Dear Amy,

Thank you for your response. I can provide gratis permission to administer 300 copies of the questionnaire.

Kind regards,

Mary Ann Price
Rights Coordinator
SAGE Publishing

Appendix C: Details and Permissions for Use of LMX-7 Scale

Leader-Member Exchange Scale--7-item Version Attached: Full Test

PsycTESTS Citation:
Graen, G. B., Novak, M. A., & Sommerkamp, P. (1982). Leader-Member Exchange Scale--7-item Version [Database record]. Retrieved from PsycTESTS. doi.10.1037/t59314-000

Instrument Type:
Rating Scale

Test Format:
Responses to the seven items are unit weighted and summed for each member/leader using a 5-point scale.

Source: Graen, George B., & Uhl-Bien, Mary. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, Vol 6*(2), 219-247. doi: 10.1016/1048-9843(95)90036-5, © 1995 by Elsevier. Reproduced by Permission of Elsevier.

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Appendix D: Affective Commitment Questionnaire (ACQ)

Commitment with the organization

1. I think of problems of the organization as my own problems.
2. I feel emotionally attached to the organization.
3. My organization means a lot to me.
4. I feel at home when I am at the organization.
5. I feel 'part of the family' in my organization.

Note. Measured on a 5 point scale (1= Strongly Disagree, 2 = Disagree, 3 = Neutral (neither disagree/agree), 4 = Agree, and 5 = Strongly Agree).

Appendix E: Details and Permissions Use for Affective Commitment Questionnaire

Organizational Communication and Affective Commitment Questionnaire Version Attached: Full Test

Note: Test name created by PsycTESTS

PsycTESTS Citation:
Postmes, T., Tanis, M., & de Wit, B. (2001). Organizational Communication and Affective Commitment Questionnaire [Database record]. Retrieved from PsycTESTS. doi.10.1037/t27149-000

Instrument Type:
Inventory/Questionnaire

Test Format:
The items of the Organizational Communication and Affective Commitment Questionnaire were measured on 5-point scales.

Source:
Postmes, Tom, Tanis, Martin, & de Wit, Boudewijn. (2001). Communication and commitment in organizations: A social identity approach. Group Processes & Intergroup Relations, Vol 4(3), 227-246. doi:10.1177/1368430201004003004, © 2001 by SAGE Publications. Reproduced by Permission of SAGE Publications.

Permissions: Contact Corresponding Author:
I am requesting permission to use the Affective Commitment Questionnaire derived from the article *Communication and Commitment in Organizations: A Social Identify Approach* (2001). Specifically, I am requesting permission to use the five statements measuring Affective Commitment along with scoring method for use in an online survey tool. I am also requesting permission to publish the questionnaire in my dissertation and subsequent publications by myself; with proper credit, citation, and copyright provided with each.
.
Author Permission:

Dear Amy,

That is of course no problem at all. I'd be interested in your findings!

Best,
Martin

Appendix F: Intentions to Stay Scale

Items

Please place an X in the brackets by the answer that best describes your feelings about your current work situation.

1. I expect to be working for my current employer one year from now.

2. I would change jobs if I could find another position that pays as well as my current one.

3. I am actively looking for another job.

4. I would like to work for my current employer until I retire.

5. I would prefer to be working at another organization.

6. I can't see myself working for any other organization.

7. I would feel very happy about working for another employer.

Note. All questions had the following possible responses: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree.

Appendix G: Details and Permissions for Use of Intentions to Stay Scale

Intentions to Stay Scale Version Attached: Full Test

PsycTESTS Citation:
Mayfield, J., & Mayfield, M. (2007). Intentions to stay scale [Database record]. Retrieved from PsycTESTS. doi.10.1037/t63366-000

Instrument Type:
Inventory/Questionnaire

Test Format:
This instrument consists of seven items, each rated for agreement on a five-point scale with the following response options: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree.

Source:
Mayfield, Jacqueline, & Mayfield, Milton. (2007). The effects of leader communication on a worker's intent to stay: An investigation using structural equation modeling. *Human Performance, Vol 20*(2), 85-102. doi:10.1080/08959280701332018, © 2007 by Taylor & Francis. Reproduced by Permission of Taylor & Francis.

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Author Permission:

Dear Amy,

We are happy you want to use our scale in your work. We have released the scale under a Creative Common Attribution-ShareAlike 4.0 International license. (You can find the official information on this license here:https://creativecommons.org/licenses/by-sa/4.0/.) In brief, with this license you can use the scale in any way you want as long as you give us credit (Milton & Jacqueline Mayfield), state that the scale was released under the license, and release any changes you make to the scale under the same license (you can add your name to the revised scale to give yourself credit for the changes).

Please let us know if you would like a copy of the scale in MS Word (or another) format or have any other questions about the scale or its license.

We wish you the best of luck on your work. Please let us know how your study progresses.

Sincerely,
Milton & Jackie Mayfield