NURSING THE IDENTITY: THE MEDIATING ROLES OF LEARNED HELPNESSNESS AND INTERACTION INVOLVEMENT IN PREDICTING WILINGNESS TO CONFRONT CONFLICT AND ANTICIPATED TURNOVER

DISSERTATION

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ABSTRACT

Nurses function in a complex web of relationships including other nurses, supervisors, patients, and physicians. They are guided through these challenges with the task of managing relationships by professional standards; yet often experience role confusion, conflict, and incompatible goals. Given these conflicting factors, nurses at all levels face the difficulties of both educating and caring for patients while, at times, being each other’s own worst enemy. Numerous nurse researchers have explored the various facets of nurse conflict (e.g., Cavanagh, 1991; Cox, 2001; McKenna et al., 2003; Randle, 2003; Stanley et al., 2007). However, few scholars (for exceptions see Apker et al, 2005; Apker et al., 2009; Nicotera & Clinkscales, 2010; Nicotera et al., 2010) have taken a uniquely communication approach to understanding how the way in which nurses view themselves may predict the nature of their interpersonal communication (e.g., being engaged in conversation inside the organizational context), willingness to confront conflict with other nurses, feelings of learned helplessness, and employment turnover.

Through a social identity theoretical lens, this dissertation examines how nurses’ identification with their working small group, unit, or floor, nursing role (e.g., staff ER nurse, nurse practitioner), and the nursing profession relates to nurses interaction involvement, willingness to confront conflict, feelings of learned helplessness, and tenure intentions. Nurse identity is theorized to vary at three levels per nurses’ small group/unit/floor, role, and profession.
Key variables were explored via a cross-sectional survey including 446 nurse participants employed at Cleveland Clinic. Tenets of Dillman’s (2007) Tailored Design Method and Total Survey Error Approach (Weisberg, 2005) guided the creation and distribution of this survey. Structural equation modeling was used to uncover direct and indirect effects between the five primary variables in question. Findings demonstrate direct relationships between nurse identity (as a latent variable) and interaction involvement, willingness to confront conflict, and tenure intentions. Feelings of learned helplessness are attenuated by increased nurse identity through interaction involvement and willingness to confront conflict. Additionally, both willingness to confront conflict and learned helplessness mediate the relationship between interaction involvement and nurses’ tenure intentions.

Finally, this dissertation contributes to a small body of literature examining identity antecedents to communication phenomenon inside the nursing profession. Theoretical extensions include indirect links between nurse identity and learned helplessness via interaction involvement and willingness to confront conflict and interaction involvement and tenure predictions as mediated by willingness to confront conflict and learned helplessness. Findings in this study (e.g., those related to Packer’s [2008; Packer & Chasteen, 2010] normative conflict model of dissent) also echo prior work conducted by scholars interested in social identity occurrences in organizational arenas. Implications for communication theory development, health communication, and the nursing profession are presented and directions for future research discussed.
This work is dedicated to:
the nurses at Cleveland Clinic;
my wonderful and gracious family; Patty, James, and my twin, Janice Moreland;
Pastor Zoe Hafner
my wonderful friends who have walked this journey with me.
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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

Introduction & Purpose

Nurses function in a complex web of relationships including other nurses, supervisors, patients, and physicians. They are guided through these challenges with the task of managing these relationships by professional standards; yet often experience role confusion, conflict, and incompatible goals (Arthur & Randle, 2007; Baker, 1995; Cox, 2001; Gardner & Chang, 2007; Nicotera, Mahon, & Zhao, 2010; Redekopp, 1997). Given these conflicting factors, nurses at all levels face the difficulties of both educating and caring for patients while, at times, being each others’ own worst enemy. Numerous nurse researchers have explored the various facets of nurse conflict (e.g., Cavanagh, 1991; Cox, 2001; McKenna, Smith, Poole, & Coverdale, 2003; Randle, 2003; Stanley, Martin, Michel, Welton, & Nemeth 2007). However, few scholars (for exceptions see Apker, Propp, & Ford, 2005; Apker, Propp, & Ford, 2009; Nicotera & Clinkscales, 2010; Nicotera et al., 2010) have taken a uniquely communication approach to understanding how the way in which nurses view themselves may predict the nature of their interpersonal communication (e.g., being engaged in conversation inside the organizational context), willingness to confront conflict with other nurses, feelings of
learned helplessness, and employment turnover. Additionally, the communication scholars who have explored conflict in the nursing context have generally neglected how identification with small nursing groups may mediate conflict and related variables, such as learned helplessness and employment turnover. Thus, the purpose of this dissertation is to: (1) test a model exploring potential relationships between nurse identity, interaction involvement, willingness to confront conflict, learned helplessness, and tenure intentions via survey methodologies and (2) examine the implications of this model for health communication and nursing professionals and scholars.

Background and Context

Nurses are dedicated to the prevention of illness, care and advocacy for and on behalf of patients and their family, as well as “the protection, promotion, and optimization of health and abilities” (American Nurses Association [ANA], 2011b, para. 1). The nursing profession is an education- and training-rich field comprised of nurses whose area of expertise ranges from informatics to pediatric oncology to nurse education and teaching (Bureau of Labor Statistics, 2009). Some nurses may be one- to two-year educated Licensed Practical Nurses (LPNs) who possess a more restricted skill set, compared to a nurse practitioner (NP) who has completed seven to eight years of postsecondary education, traditionally possesses at least a master’s degree, and often has medical prescribing rights (American Academy of Nurse Practitioners, 2010; ANA, 2011a). According to the 2008 National Sample Survey of Registered Nurses (NSSRN) (U.S. Department of Health and Human Services Health Resources and Services Administration, 2010), there are over 2.5 million practicing registered nurses (RNs) in the U.S. Currently, there are over 752,000 LPNs practicing in the U.S. The BLS (a, b, 2012)
expects the number of total RNs and LPNs needed by 2020 to increase by an immense 26% and 22%, respectively.

As of March 2008, the average nurse was 47 years of age (AACN, 2010) which is indicative of an aging nurse workforce, and the profession currently faces a lack of new nurses (AACN, 2010). Along with this shortage of new nurses and increasing market demands, hospitals experience a high nurse turnover rate (AACN, 2010). Quite significantly, Kovner and colleagues (2007) discovered nearly 13% of new nursing graduates (from 35 states and the District of Columbia) changed jobs after only one year and an additional 37% reported feeling “ready” to change jobs after one year of employment. Unfortunately, in many healthcare organizations, nurse turnover can be as high as 20% per year and costs organizations significantly (Jones, 2005). For every one percent increase in nurse turnover, an organization will face $300,000 in costs associated with turnover. Healthcare executives often consider the ramifications of nurse turnover once it is too late (Jones, 2008). Furthermore, dollar figures are only one way of quantifying the “costs” of turnover—other costs may include increases in the length of patient stays, nurse burnout, communication breakdown, and poor continuity of care, among others (Jones, 2008).

Overall, these statistics underscore the variable nature of the professional nursing environment that both unites and internally divides and stresses nurses. In addition to experiencing job-related stressors, nurses also endure conflict with one another and such conflict often results in turnover (Almost, 2006). However, when individuals feel attached to and identify with members of a work group, they are more willing to confront negative conflict norms. More highly-identified group members are also more likely to
desire to stay with their organizational group (O’Reilly & Chatman, 1986). As
aforementioned, communication scholars have begun exploring conflict issues among
nurses, yet these studies have yet to address how nurses’ identification with their unit,
floor, or small group will likely relate to willingness to confront negative conflict norms,
decreased learned helplessness, and subsequent tenure intentions.

Theoretical Framework

Prior research demonstrates the usefulness of drawing on social identity theory for
understanding how nurses come to identify with the groups to which they belong (e.g.,
Apker et al., 2009; de la Sablonniere & Tougas, 2008; Grube, Piliavan, & Turner, 2010;
Millward, 1995; Oaker & Brown, 1986; Skevington, 1981; van Knippenberg & van Oers,
1984). Per social identity theory, the social category to which one belongs helps to
define the individual and aids in developing a sense of self through communication with
others (Hecht & Jung, 2004; Hogg, Terry, & White, 1995; Tajfel & Turner, 1979). The
social context in which an individual functions, perhaps the unit or floor for a nurse,
affects how an individual perceives himself/herself and this is especially true in
organizational contexts (Ashforth & Mael, 1989; Ellemers, Spears, & Doosje, 2002).
Over time, group members communicate norms to one another via identification with
their organizational group. In other words, when group members act in accordance with
their organizational group’s standards, they communicate how organizational identity
should feel and look (Fox & Giles, 1996; Hogg & Reid, 2006). Individuals inside the
organization develop a sense of value and significance by adhering to group norms and
developing a social identification with the group (Ashforth & Mael, 1989).
Social identity theory also states individuals continue to seek membership in groups that will enhance their perception of themselves. Ingroup members desire to differentiate themselves from members of an outgroup so they compare to the outgroup more favorably. Notably, social identity should be viewed on a continuum, as individuals can make decisions which are more individually-driven and others which are more collectively-driven and reflect the group's interests along with the individual’s interests (Tajfel, 1978; Tajfel & Turner, 1979). Summatively, individuals seek a positive sense-of-self via group membership and group members communicate implicitly and explicitly standards by which group members should act (Ashforth & Mael, 1989).

Identity Threats and Identity Bolstering

At times, however, an individual’s social identity within the group is not so positive and may be threatened. For instance, group members may come to feel another group, compared to their group, is superior on important identity-related dimensions. Thus, when group members’ identity is threatened and/or individuals become dissatisfied with their group membership, they may engage in identity management, or bolstering (Mummendey, Kessler, Klink, & Mielke, 1999; Raman, 2008; Tajfel & Turner, 1979). These identity bolstering methods include: (1) individual mobility; (2) recategorization at a higher level; (3) social competition; (4) realistic competition; (5) preference for temporal comparison; and (6) reevaluation of dimensions (Mummendey et al., 1999).

Individual mobility refers to individuals within the group deciding to shift to a different group (if it is possible) which better meets their identity needs (Tajfel, 1979). An example of recategorization at a higher level for a staff nurse could be the following: a staff nurse who feels inferior to nurse managers and/or nurse practitioners present in his
or her work unit may place greater emphasis on membership to the field of nursing instead of the work unit. Social competition refers to group members seeking to gain status they perceive as better than their current status; whereas realistic competition refers to group members seeking out increased material resources compared to an outgroup that is threatening them (Mummendey et al., 1999). An example of preference for temporal comparison in the nursing context is a staff nurse perceiving his or her superior ability to care for a patient as superior to his manager’s limited ability to boss around her and his peers. Finally, nurses may bolster their group identity by comparing themselves to the oft-considered superior physicians to ensure the nursing profession comes out on top. For example, some nurses may remind themselves materiality, or wealth, is not what drives them—patients do (Mummendy et al., 1999; Mummendy, Klink, Mielke, Wenzel, & Blanz, 1999).

**Social Identity and Nursing**

Specific to the nursing profession, Apker and colleagues (2009) discovered nurses’ organizational (i.e., macro-level identification with the hospital) and team (i.e., interdisciplinary group with which they worked) identification are bolstered by mentoring and mediates these variables’ relationship to tenure intentions. Examining another dimension of nurse identity, Skevington (1981) discovered individuals desiring to leave the group perceived more disadvantages associated with their ingroup compared to those not wanting to leave. Furthermore, those nurses not wanting to leave their group, compared to those who desired to leave, identified more with their ingroup and reported less ingroup bias (i.e., favoring the ingroup or discriminating against the outgroup). These findings coincide with social identity theory’s theoretical suppositions.
Oaker and Brown (1986) discovered nurses of various hierarchies (i.e., the lower-status generalists and higher-status specialists) preferred their own nurse ingroup over outgroup members. Furthermore, the higher-status, specialized nurse group emphasized the skills their position required, whereas the generalists emphasized patient contact and work variety. Nurses’ attitudes toward aspects of their position greatly influenced their identification with their group (Oaker & Brown, 1986). These results also align with social identity and identity bolstering tactics, but contrary to the Tajfel’s (1972) predictions—the more a nurse identified with his/her ingroup, the less ingroup favoritism he/she reported. Overall, these studies point to the need for more research examining nurse identity and communication phenomenon through a social identity theoretical lens.
CHAPTER 2

A MODEL EXPLORING KEY VARIABLES

In this chapter, a model is proposed (Figure 1) wherein (1) nurse identity, which is posited to vary at three different levels (i.e., small group/unit/floor, the profession, and the nurse role); (2) interaction involvement; (3) learned helplessness; (4) willingness to confront conflict; and (5) tenure intentions relate to one another. The nature and complexities of these variables, especially with relation to conflict, likely affect one another and interrelate (e.g., Jehn & Mannix, 2001; Peterson & Behfar, 2003). Each variable is discussed here, as are the relationships between each variable. This section concludes with proposed research questions and hypotheses.
Figure 1. Model comprised of nurse identity at three levels, interaction involvement, willingness to confront conflict, learned helplessness, and tenure.

Nurse Identity

Nurses perform their identity in a variety of settings and through various functions. Research demonstrates nurses adhere to a small group, unit, or floor identity; role identity; and professional identity (Fagermoen, 1997). In the present study, each of these three nurse role identity components is viewed as a part of the nurse’s overall evaluation of the self with regard to these different groups. Subsequently, each of these three dimensions of nurse identity is discussed below and will be measured in the model proposed in this study.

Nurse Small Group/Unit/Floor Identity

Nurses come to know their role and function within the organizational context due to their being a part of a unit, floor, or small group. Hewstone, Rubin, and Willis (2002)
note that social identities are made salient per context and are useful for individuals to understand their role in a group. Nurses thus appear to have a sense of social identity at the unit/floor/small group level (Ashforth & Mael, 1989). For example, a nursing unit may be known to themselves and other units for their teamwork skills and ability to think outside the box and this may give members of the unit a sense of shared pride. Specifically, members of organizational work groups come to develop a sense of who they are based on their membership in the work group. Thus, members of a workplace group perceive their group prototype in terms of how group members should act (Hogg & Terry, 2000).

Individuals also seek resources, assistance, social support, and positive evaluations from those inside their group or work team (Gomez, Dovidio, Huici, Gaertner, & Cuadrado, 2008; van Knippenberg & van Schie, 2000). Work group identity is strongly associated with job satisfaction, involvement, and motivation. Nursing research demonstrates when nurses on a patient care unit function together as a team nurses experience more job satisfaction (Rafferty, Ball, & Aiken, 2001). Furthermore, when unit team members are familiar with each other’s vulnerabilities, strengths, and idiosyncrasies overall team productivity and effectiveness increase (Guzzo & Dickson, 1996; Kalisch & Begeny, 2005).

*Nurse Role Identity*

The nurses’ specific role, which is a function of the nurse’s education and training, constitutes another layer of nurse identity. Research (e.g., Beal, Maguire, & Carr, 1996; Fagerburg, 2004; Redekopp, 1997; Rich, 2010) demonstrates nurses in various roles experience a sense of identity related to their professional role. Importantly,
many nurses share the licensure, of “RN,” but some of these nurses, such as Advanced Practice Registered Nurses (APRNs) (which include nurse practitioners and clinical nurse specialists [CNSs] who are required to obtain additional licensures, for instance) obtain further education which differentiates them from traditional RNs (ANA, 2011). LPNs constitute another possible licensure in the nursing profession, as do Clinical Nurse Leaders (CNLs) and Certified Registered Nurse Anesthetists (CRNAs) (ANA, 2011).

Each of these functional nurse roles possesses a set of nursing practice and administration standards and perhaps its own nursing prototype. For instance, a staff RN on an oncology unit cares for patients battling cancer and may aid in administering radiation and chemotherapies and provide follow-up monitoring (BLS, 2009). The clinical nurse manager is considered the “pivotal link between management and employees,” is responsible for meeting organizational goals, assuring quality healthcare, as well as having excellent clinical knowledge and skills (Oroviogoicoechea, 1996). Contrastingly, CNSs offer “expert consultations” to nursing specialty groups, such as psychiatric mental health, diabetes, and pain management, and provide direct patient care to these patient subpopulations (BLS, 2009). These nursing role examples speak to how many individuals earn the title “nurse,” but their day-to-day scope of practice and relationship to patient care may vary drastically from professional nurse role to role. While there may be some overlap per nurse roles, members of each nurse role group likely—based on training, education, and organizational needs—understand their purpose in terms of a socially identifiable role.
Professional Nurse Identity

Importantly, a nurse’s unit/floor/small group identity is likely only one facet of a nurse’s overall identity with regards to his/her profession and role. For instance, research demonstrates nurses in various roles experience a sense of identity related to their professional role (e.g., Beal, Maguire, & Carr, 1996; Fagerburg, 2004; Redekopp, 1997; Rich, 2010). Nurses generally possess a common identity arising from being a “nurse,” having common experiences, and a shared dedication to caring for patients (Millward, 1995). Professionally, nurses are to exemplify good judgement, emotional maturity, self-discipline, levelheadedness, and responsibility and through socialization processes (which happen during education and training) they learn to internalize a sense of nurse professionalism (du Toit, 1995).

As Skar (2010) discovered in a study of newer nurses (in practice two to three years), nurses view their professional role and autonomy as one encompassing knowing patients, being cognizant of what they know and do not know, holding a holistic health perspective, and being confident in challenges. Furthermore the nursing profession is one encouraging of a morally-committed philosophy to protect human dignity and preserve humanity (Bishop & Scudder, 1990; Watson, 1999). In carrying out these professional ideals, nurses perform duties in their organization and are known to possess a shared identity (Fagermoen, 1997). This common identity arises from common experiences and a dedication to caring for shared patients (Millward, 1995).

Per self-categorization theory, nurses seem to generally have a professional, albeit fuzzy, prototype to which they assimilate (Hewstone et al., 2002; Hogg et al., 1995; Hogg & Reid, 2006; Hogg & Terry, 2000). Prototypes are representations of attributes (e.g.,
beliefs, attitudes, behavior) which subjectively seem to define a social category,” and thus the nursing prototype is likely one including the aforementioned attributes (e.g., thorough, responsible, caring, etc.) along with other characteristics, such as female, educated, and licensed (Hogg, Terry, & White, 1995, p. 262). Overall, nurses should look to this prototype for explanation as to how nursing practices, values, and ethics should manifest in the healthcare context.

Both the role and professional nurse identity affect and interact with a nurse’s unit/floor/small group identity and are likely critical to how a nurse appraises himself/herself as a professional in context. Thus, these three identity levels will be employed in the examination of interpersonal communication and conflict between nurses. In this study, it is proposed that small group-level nurse identity likely relates to interaction involvement, learned helplessness, conflict confrontation willingness, and tenure intention variables. To what extent nurses’ identify with their unit/floor/small will be important for gaining a more complete picture of nurse behavior based on nurses’ social relations.

Notably, the nurse identity dimensions discussed here should not be viewed as independent identities, but rather as identities that work in concert. However, portions of each identity likely conflict at times. For instance, a nurse who highly identifies with a unit may witness members of her unit mistreat a younger nurse, which is an action clearly in opposition to professional nursing values and standards. Contextually one of these nurse identity dimensions may be salient at one time and not another (e.g., a nurse practitioner’s role identity will be quite salient when he prescribes and treats a patient,
but his identity as a nurse professional may be more salient than the practitioner identity when giving a lecture to RN students).

As will be explained below, identity should be positively related to willingness to confront conflict and tenure intentions and negatively related to learned helplessness. Further relationships, as well as support for these relationships, will be discussed in the following subsections.

Interaction Involvement

Effective communication in the organizational small-group context can reduce ineffective decisions and harmful decision making (Miller, 2008). One way to view perceived effective communication is through an interaction involvement perspective (Cegala, 1981; Cegala, Savage, Brunner, & Conrad, 1982). Interaction involvement, per Cegala’s (1981) conceptualization, refers to the extent to which an individual conversationally engages in a social context and is communicatively competent. In other words, individuals communicate with one another in an interpersonal context and seek to engage the self and others in meaningful interactions (Cegala, 1981). Individuals involved in and concerned about their interactions and relationships with others are attentive (i.e., they listen to conversation partners), perceptive (i.e., they derive meaning from verbal and nonverbal messages in a conversation), and responsive (i.e., they provide appropriate feedback) (Anderson & Martin, 1995; Cegala, 1981, 1984; Cegala et al., 1982; Daly, 2002). Thus, a nurse who is highly involved in interactions with other nurses on his/her unit/floor/small group will communicate thoughts and experiences with other nurses (Cegala, 1981). To the contrary, an uninvolved nurse would pay less attention to
personal evaluations of the current social environment and participate in conversations to a lesser extent (Cegala, 1981).

Research demonstrates communicative responsiveness, similar to interaction involvement, predicts occupational commitment among human service workers (Miller, Stiff, & Ellis, 1988). A study of hospital nurses found that high job burnout was associated with both decreased organizational commitment and increased interpersonal stress (Leiter & Maslach, 1988). Cox (2001) discovered positive perceptions of “unit morale and interpersonal relations” negatively predicted both intragroup conflict and anticipated turnover and positively predicted satisfaction with pay. More recently, Apker and colleagues (2009) found nurses engaging in communication emphasizing team synergy, individualized communication, and working for quality decisions were less likely to leave their job. Overall, effective communication between healthcare team members facilitates high-quality patient care (Grumbach & Bodenheimer, 2004; Leonard, Graham, & Bonacum, 2004).

With regards to the proposed model, nurse identity will relate to interaction involvement. Nurses who view themselves as attached to and a part of their unit/floor/small group should seek to be perceptive and sensitive to members of this group in conversation (i.e., be involved in interaction). Identity is developed and maintained through communication (Giles, Coupland, & Coupland, 1991), thus it is likely nurses desiring to fulfill their role on the unit or floor will enhance their identity through perceptive and sensitive communication with their nurse colleagues. Likewise, nurses feeling communicatively involved with nurses on their unit, floor, or small group should predict their intentions to remain on the unit, floor, or small group and in the
profession. Research demonstrates a positive communication climate inside the organization predicts the sharing of knowledge and commitment to the organization (van den Hoof & Ridder, 2004).

Willingness to Confront Conflict

Defining conflict poses a challenge to many researchers (Boardman & Horowitz, 1994; Rahim, 2001). In this dissertation, “conflict” is defined broadly in order to best apply what is known about conflict in the nursing context and confrontation willingness, in general. Thus, conflict should be viewed not only in terms of traditional, face-to-face arguments, but also in terms of value or goal conflict.

Conflict often occurs when group members view the actions and/or beliefs of one another as unacceptable and they work to resist each other (Forsyth, 1990). Furthermore, conflict may come in the forms of violations of group norms and nursing standards (e.g., Laabs, 2007), passive-aggressiveness (Cullen, 1995), backstabbing, intimidation, overall “lateral violence” (e.g., backstabbing, failure to respect another’s privacy, verbal affront, etc.), and even verbal aggressiveness (Jackson, Clare, & Mannix, 2002; Longo & Sherman, 2007; Rowe & Sherlock, 2005; Stanley et al., 2007). These examples point to a need for interrupting such negative conflict norms in the nursing context and exploring whether or not nurses are willing to confront such norms.

The literature points to intense levels of negative conflict between nurses (such as older nurses metaphorically eating their inexperienced young [Baltimore, 2006]). Nurses report experiencing passive-aggressiveness, backstabbing, intimidation, verbal aggressiveness, and failure to respect other nurses’ privacy (Cullen, 1995; Jackson, Clare, & Mannix, 2002; Longo & Sherman, 2007; Rowe & Sherlock, 2005; Stanley et al.,
For instance, the RNs in a unit may work cooperatively on the surface, but their group norms may emphasize conflict avoidance (Mahon & Nicotera, 2011) and older nurses backstabbing younger nurses. Such actions represent what Packer (2008) refers to as normative conflict, or conflict which is the result of current group norms not matching group behavioral standards. Subsequently, normative conflict describes both overt (e.g., nurses verbal abusing one another) and covert (e.g., a nurse sabotaging another’s goal) conflict, as well as behavior that is in disagreement with previously agreed upon standards. A nurse purposely not following professional protocol is an example of the later form of normative conflict.

Nurses are embedded in a complex web of relationships with one another and these relationships are characterized by incompatible goals and normative conflict (Nicotera et al., 2010). Thus, willingness to actually confront conflict is important to end cycles of learned helplessness, as these cycles begin when an individual feels helpless to alter a typically negative course of action or consequence. Nurses experience intergroup conflict inside the nursing unit and this frustrates their goals and hinders patient care (Cox, 2003; Swearigen & Liberman, 2004). Nurse identity should play an important role in nurses’ ability to manage or confront normative conflict.

According to Packer’s normative conflict model of dissent (Packer, 2009; Packer & Chasteen, 2010), group members who are more highly identified with their group are more willing to confront negative group norms if they find these norms to be harmful to the group. Thus nurses who are more strongly-identified with their unit/floor/small group should be quite attentive to and concerned with group-related issues and even willing to pay social costs for speaking out (Packer, 2009). Conversely, lesser-identified nurses are
expected to disengage from and/or leave their groups when normative conflict occurs (Packer, 2009). It may be that this disengaging on the part of nurses who identify less with their unit/floor/small group may take the form of conflict avoidance and/or learned helplessness and eventually this could lead to decreased tenure intentions and subsequently increased turnover.

Interaction involvement will positively predict willingness to confront conflict: a nurse who is a competent communicator will perhaps be more likely to discuss inappropriate actions or offenses. For instance, Wheeless and Reichel (1990) discovered versatile, responsive, and more employee-centered communication related to a more solution-oriented approach to problem solving. Finally, willingness to confront conflict will negatively relate to learned helplessness (discussed next) because nurses who are willing to speak out against negative conflict norms should feel more empowered in their workplace environment and role.

Learned Helplessness

Theoretically, learned helplessness begins with passivity which comes after individuals have faced repeated punishment or failure. Due to feelings of ineffectiveness and frustration, individuals remain passive in an environment even after the environment has been altered and now allows change and forward motion (Martinko & Gardner, 1982, p. 196). Learned helplessness in the current context thus does not necessarily refer to doing nothing or remaining inactive. Rather, learned helplessness is a feeling of immobilization that manifests itself in the nurse simply going through the motions; maintaining the status quo; avoiding conflict, if necessary; and feeling in between a rock and a hard place due to management, physicians, peers, and patients making demands on
his/her time, skills, and emotions simultaneously (e.g., Almost, 2006; Brotheridge & Grandey, 2002; Clayton, 2006; Holden et al., 2011; Nicotera & Clinkscales, 2010; Nicotera et al., 2010). Learned helplessness may also take the face of withdrawal from people or events and may even lead to inactivity, at its worse. For example, some nurses may feel they are rarely recognized for their effective work habits, thus sensing their role in a unit, floor, or small group is demeaned. When this occurs, nurses’ self-esteem falters (Bartholomew, 2006) and this may at least one reason why nurses feel unable to change negative conflict cycles.

Finally, per the model proposed, interaction involvement and learned helplessness will negatively relate to one another, as a nurse engaged in effectively communicating with those on his/her floor should not sense communicative actions and behaviors, in general, are ineffective. In support of this hypothesis, Cox (1991) reported nurses often choose to avoid conflict regardless of their status (i.e., management versus staff) and such conflict avoidance can be viewed as a form of learned helplessness. Likewise, many staff nurses are not familiar with organizational procedures for reporting verbal abuse and human resources-related issues (Cox, 1991) and this inability to respond to the conflict can increase feelings of helplessness. Research also demonstrates that when nursing management espouses a “non-consultative” approach to communication (i.e., management makes decisions and imposes rules with little or no feedback from staff), nurses are more likely to feel burned-out and intend to quit (Moore, 2001). Furthermore, Kelly (2006) argues because “nice people” are those who avoid conflict and nurses are to be “nice.” Consequently, some nurses resort to conflict avoidance, over-accommodation of others, and passivity, all of which can lead to low nurse morale and learned
helplessness. Overall, learned helplessness is likely the result of the frequent ingroup conflict nurses experience with one another (Nicotera et al., 2010).

Tenure

Employment tenure is a prominent issue in the field of nursing (AACN, 2010, Lum, Kervin, Clark, Reid, & Sirola, 1998; Jones, 2004, 2005; Zurmehly, Martin, & Fitzpatrick, 2009). With as many as 37% of first-year RNs reporting a willingness to change jobs after only one year (Kovner et al., 2007), tenure is a significant concern. Turnover (nurses leaving their position) is quite costly to the health profession as a whole and affects access to healthcare. In 2005, the U.S. national average RN cost-per-hire was near $3,000 (AACN, 2010) and Jones (2004, 2005) estimates the cost of replacing one hospital RN can be up to 1.3 times the amount of a RNs salary for one year.

Research demonstrates organizational commitment directly impacts nurse turnover (Apker et al., 2009; Lum et al., 1998). In other words, when nurses feel attached to and a part of their unit, floor, or small group, they desire to remain a part of it for longer periods of time. Specifically, when a nursing unit is stable (i.e., nurses remain in that unit), nurses’ relationships with one another are positively affected (Kalisch & Begeny, 2005). When nurses choose to remain with their unit, floor, or small group and create a sense of identity and stability, patient care can be improved and at a lower cost (Kalisch & Begeny, 2005).

Individuals identifying with their work group see themselves and their fate tied to the functioning of the group (Ashforth & Mael, 1989). Furthermore, nurses’ effective communication with one another is linked to organizational identity and organizational identity predicts tenure intentions (Apker et al., 2009). Nurse identity, willingness to
confront conflict, and learned helplessness all predict tenure intentions in the proposed model. When nurses feel positively attached to and identify with their unit/floor/small group, they should be more likely to want to remain a part of their group. As mentioned, those more highly-identified nurses who care for their wellbeing of their group should be those most willing to confront negative conflict norms in their environment (Packer, 2008; Packer & Chasteen, 2010). Addressing conflict should assist in a nurses’ intentions to remain a part of his/her unit/floor/small group. Likewise, nurses feeling helplessness to change negative conflict norms should be those who exit their small group/unit/floor, role, and/or profession. As mentioned, leaving a group is one form of identity bolstering.

Demographics

Finally, demographic (i.e., gender, age, education, race, etc.) variables may alter the proposed relationships between identity and the other variables in this study. Of significance, nurses possessing various educational, training, and experience backgrounds view their role within the profession differently (e.g., Doran, Sidani, Keatings, & Doidge, 2002; Godinez, Schweiger, Gruver, & Ryan, 1999). For example, a master’s educated nurse manager may be more willing to confront conflict when the transgression involves him and a subordinate nurse, but less willing to confront his supervisor in a conflict situation. The proposed research will explore how these demographic variables relate to the variables in the model, but will not make specific predictions regarding any relationship’s direction.
Model Summary

This section provides a brief review of the theoretical variables and their dynamic relationships with one another. First, nurse identity is comprised of professional, role, and small group/unit/floor group levels. How much a nurse identifies with his/her unit, floor, or small group will positively relate to both interaction involvement, willingness to confront conflict, and tenure intentions. More highly identified nurses should be those who are perceptive and attentive to other nurses in their communication practices. Additionally, more highly identified nurses should be willing to speak out against conflict norms (Packer & Chasteen, 2010), which too often characterize the nursing profession. However, nurses caught in cyclical conflict may find themselves feeling a sense of helplessness, or frustration with an inability to change ineffective work occurrences. Nurse identity should be negatively related to learned helplessness, as nurses identifying with their role and function as a nurse should feel empowered to combat negative circumstances in their environment (e.g., Drury & Reicher, 1999). However, learned helplessness may mediate the relationship between nurse identity and tenure, as nurses who consistently feel trapped in conflict situations in their workplace will become less committed to their workplace.

Interaction involvement will positively predict willingness to confront conflict, as well as tenure intentions, and mediate the relationship between nurse identity and willingness to confront conflict. Additionally, interaction involvement may mediate the relationship between nurse identity and tenure intentions. However, interaction involvement should negatively relate to learned helplessness. Willingness to confront
conflict will positively predict tenure intentions and it is proposed that this relationship will be mediated by learned helplessness.

Research Questions and Hypotheses

Prior to examining the proposed links between variables, the following two research questions are advanced to set the stage for further results:

RQ1: How do nurses perceive their identity at (a) the professional level, (b) role level, and (c) small group/unit/floor level?

RQ2: Which demographic characteristics are associated with nurse identity?

Given extant literature, the following hypotheses, which form the model, are advanced (Figure 1, above). The direct effect hypotheses will be presented first followed by the indirect effect hypotheses.

First, nurse small group identity will positively relate to interaction involvement (H1a), willingness to confront conflict (H1b), and tenure intentions (H1c) and negatively relate to learned helplessness (H1d). Additionally, nurses’ interaction involvement will positively relate willingness to confront conflict (H2a) and tenure intentions (H2b) and negatively related to learned helplessness (H2c). Nurses’ willingness to confront conflict will negatively relate to learned helplessness (H3a) and positively relate to tenure intentions (H3b). Finally, learned helplessness will negatively, directly affect tenure intentions (H4).

A number of indirect effects within the model are hypothesized. To begin, nurses’ interaction involvement will mediate the relationship between nurse identity and willingness to confront conflict (H5). Willingness to confront conflict will mediate the relationship between interaction involvement and learned helplessness (H6). Learned
helplessness will mediate the relationship between willingness to confront conflict and tenure intentions (H7) and the relationship between nurse small group/unit/floor identity and tenure intentions (H8).

The final research question will guide exploration into strategies nurses may use to bolster their identity in the face of identity threats.

RQ3: Do nurses feeling a sense of learned helplessness engage in identity bolstering?
CHAPTER 3

METHOD

This chapter presents the survey procedures used in the study, including how research subjects were invited to participate, details about the measurement of the various concepts, and the analytical procedures employed to test the proposed model.

Host Hospital System Characteristics

Participants in this study include \( N = 446 \) nurses from a large, teaching and research hospital system in Cleveland, OH. The Cleveland Clinic has been awarded the national honor of Magnet Status, which deems the hospital a quality institution for nursing growth and development. Cleveland Clinic’s hospital system serves diverse regional, national, and international populations. The main hospital houses 1,400+ inpatient beds (4,400+ system-wide) and admitted over 160,000 patients and completed 4.6 million visits in 2011 (Cleveland Clinic, 2011).

Sample Derivation

All nurses employed at the participating hospital were eligible to complete the study, as long as they were LPNs (Licensed Practical Nurses) or RNs (Registered Nurses). The LPN or RN designation is the minimum licensure required of practicing nurses. A total of 766 individuals accessed and began the online survey for this study. At the start of the survey, participants responded to the item: “I am a (1) LPN, (2) RN, (3)
not a nurse.” Those responding they were not a nurse—32 individuals in all—were automatically discontinued from the online survey, which left 734 eligible cases.

However, not all cases were kept as they contained significant amounts of missing data. Missing data is problematic because it can cause mistakes in parameter estimates (e.g., biasing correlation coefficients) and/or decreased statistical power (Roth, 1994). Thus, to manage this missing data a series of steps were taken as outlined here.

First, hot deck imputation was selected as the most appropriate missing data management tool, as it is preferred over other missing data and/or data imputation solutions (Myers, 2011). To begin, large-scale listwise deletion (i.e., cases are just deleted because of one or more responses missing) can lower power and bias estimates (Anderson, Basilevsky, & Hum, 1983; Myers, 2011). Pairwise deletion, wherein researchers delete a case only if that case is not needed for analyses, should also be avoided and so should mean substitution. Mean substitution can artificially decrease item variability and create regression toward the mean (Myers, 2011). Three prominent model-based missing data handling strategies include: maximum likelihood, expected maximization, and multiple imputation. These model-based procedures provide accurate estimates of model parameters and are well-used. However, model-based procedures do not focus on replacing actual missing values (Myers, 2011). Subsequently, hot deck data imputation is employed in the current study.

Prior to employing hot deck syntax and methods, cases containing greater than 20% or more missing data on key variables (nurse identity, interaction involvement, willingness to confront conflict, learned helplessness, and demographics) were excluded from the final dataset. This is in accordance with Myers’ (2011) and Roth’s (1994) hot
Hot deck imputation is appropriate when the amount of missing data is as much as 20% and the items are missing at random (i.e., there is no systematic pattern in missing data). When items are not missing at random (i.e., respondents are likely choosing to not provide a response for an item), hot deck imputation is appropriate for data missing at a rate between six and 10% (Roth, 1994). The present survey likely has both types of missing data—missing at random and not missing at random, as some participants can inadvertently skip an item and others may skip more intrusive questions, like those relating to tenure predictions.

The following table (Table 1) depicts the number of cases dropped per variable, the drop rate (or the number of items deemed necessary for the 80% cut-off), and the remaining number of cases. A cut-off rate of near 20% for missing data exclusion was used to (1) maintain the integrity of key outcome variables; (2) follow Roth’s (1994) recommendations; (3) and data appear to be missing at random and not missing at random. In other words, if a case possessed less than 80% of items per a given variable, it was eliminated. For example, for the variable interaction involvement, a cut of rate of 22.22% was employed and thus seven of nine total interaction involvement items had to be present in a case for the case to be kept.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Listwise Deletion Cut-off Rate (Missing Item Allotment/Total Items)</th>
<th>Number of Cases Dropped</th>
<th>Remaining Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning of dataset</strong></td>
<td></td>
<td></td>
<td>766</td>
</tr>
<tr>
<td>Individuals dropped from dataset (non-nurses, non-respondents to this item)</td>
<td>20% (16/20)</td>
<td>32</td>
<td>734</td>
</tr>
<tr>
<td>Nurse Identity (all levels combined)</td>
<td>20% (16/20)</td>
<td>130</td>
<td>604</td>
</tr>
<tr>
<td>Interaction Involvement</td>
<td>22.22% (7/9)</td>
<td>52</td>
<td>552</td>
</tr>
<tr>
<td>Willingness to Confront Conflict</td>
<td>12.5% (7/8)</td>
<td>26</td>
<td>526</td>
</tr>
<tr>
<td>Learned Helplessness</td>
<td>20% (8/10)</td>
<td>39</td>
<td>487</td>
</tr>
<tr>
<td>Tenure Intentions</td>
<td>18.75% (13/16)</td>
<td>19</td>
<td>468</td>
</tr>
<tr>
<td>Demographics</td>
<td>20% (12/15)</td>
<td>22</td>
<td>446</td>
</tr>
</tbody>
</table>

Table 1. Sample size before and after conducting listwise deletion for missing cases.

Next, hot deck imputation, conducted with Myer’s (2011) SPSS syntax, was employed to impute missing values for cases in the final \( n = 446 \) dataset. Hot deck imputation requires replacing a missing variable value with a donated value from a case similar to that of the donee (Myers, 2011; Roth, 1994). Myers’ (2011) created an SPSS syntax file to complete hot deck imputation and described the process:

Respondents with complete data who match on all deck variables to a respondent who is missing on the variable in question (the “donee”) are eligible to donate their score to that respondent. After sorting respondents into these decks, all respondents within a given deck are randomly sorted, and any respondent missing
on a given variable is then assigned the value of respondent nearest to him other
in this randomly permuted data file who is not missing data (p. 304).

For example, if a case was missing a learned helplessness item value, hot deck would
search for a donor case similar to the entire case which is missing the learned
helplessness and substitute the donor cases’ value. The variables “hourly versus salary
employment” and whether the nurse was a RN or LPN were employed as donor selection
criterion variables. They were chosen as they have little missing data present and are
only somewhat related to outcome variables (Myers, 2011). Final means and standard
deviations for which hot deck was employed are noted in Appendix F, along with the
total $n$ present.

Sample Characteristics

Employing listwise deletion requires researchers to examine whether or not the
sample characteristics of those individuals dropped from the dataset differ systematically
from those remaining in the dataset (Schafer & Graham, 2002). Subsequently, a
comparison of the entire dataset ($n = 734$) versus the complete dataset ($n = 446$) on key
demographic variables (gender, primary race, nurse type, nurse hierarchy, highest nursing
degree attained, employment status, current pursuit of higher education, years in practice
as a nurse, years in practice at current employment location, years in practice in current
small group/unit/floor, and the number of nurses the respondent works with on a daily
basis) is provided in Tables 2 (frequencies presented) and 3 (means and standard
deviations presented). The final dataset’s demographic characteristics include missing
data imputed using the hot deck process.
Chi-square analyses were conducted to determine whether or not the frequencies of the descriptive statistics (i.e., gender, primary race, nurse type, nurse hierarchy, highest nursing degree attained, employment status, current pursuit of higher education) (Table 2) in the full dataset \((n = 732)\) differ significantly from those in the cleaned dataset \((n = 446)\). The Chi-square analyses demonstrated the frequencies per dataset do not differ (all \(p’s > .14\)). Chi-square analyses are appropriate here as both the independent (original versus final datasets) and dependent (descriptive variables’ frequencies) variables are categorical (Hayes, 2005).

One-way ANOVAs, for categorical independent variables and continuous dependent variables, were conducted for each variable listed in Table 3 (years in practice as a nurse, years in practice at current employment location, years in practice in current small group/unit/floor, and the number of nurses the respondent works with on a daily basis) and no significant differences in these descriptive statistics were found (all \(p’s > .10\)) (Hayes, 2005). Although Type I error rate can be an issue with the simultaneous analysis of this number of ANOVAs, given that all descriptives were the same from the dataset with missing data to the complete dataset, readers can be confident the datasets are equivalent (Lomax & Hahs-Vaughn, 2012).

Thus, nurse participants in this study by majority are female (91.7%), white/Caucasian (93%), registered nurses (RN) (95.7%), function as hourly employees (72%), and 58.1% possess at least a Bachelor of Science in Nursing (this does not include those selecting “other” [16.8%] as their response option). The nurses represent a vast array of specialties (e.g., dermatology, oncology, coronary intensive care, pediatrics,
transplants, etc.) and perform at various hierarchical levels (e.g., nurse administrator, staff nurse, etc.) standard to the nursing field (Table 2).

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>n = 734; Original Dataset Frequencies</th>
<th>Number of Valid Cases in n = 734 dataset</th>
<th>n = 446; Clean Dataset Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>91.6%</td>
<td></td>
<td>91.7%</td>
</tr>
<tr>
<td>Male</td>
<td>8.4%</td>
<td></td>
<td>8.3%</td>
</tr>
<tr>
<td>Primary Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>92.8%</td>
<td></td>
<td>93%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>3.5%</td>
<td></td>
<td>3.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>2.8%</td>
<td></td>
<td>2.5%</td>
</tr>
<tr>
<td>Other</td>
<td>.9%</td>
<td></td>
<td>.9%</td>
</tr>
<tr>
<td>Nurse Type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPN</td>
<td>4.6%</td>
<td></td>
<td>4.3%</td>
</tr>
<tr>
<td>RN</td>
<td>95.4%</td>
<td></td>
<td>95.7%</td>
</tr>
<tr>
<td>Nurse Hierarchy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse administrator</td>
<td>2%</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Nurse manager</td>
<td>10%</td>
<td></td>
<td>10.1%</td>
</tr>
<tr>
<td>Staff nurse</td>
<td>67.7%</td>
<td></td>
<td>67.5%</td>
</tr>
<tr>
<td>Advanced practice nurse</td>
<td>3.5%</td>
<td></td>
<td>3.6%</td>
</tr>
<tr>
<td>Other</td>
<td>16.9%</td>
<td></td>
<td>16.8%</td>
</tr>
<tr>
<td>Highest Nursing Degree Attained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.4%</td>
<td></td>
<td>0.4%</td>
</tr>
<tr>
<td>Diploma (nursing school)</td>
<td>13.8%</td>
<td></td>
<td>13.7%</td>
</tr>
<tr>
<td>Associate of Science in Nursing</td>
<td></td>
<td></td>
<td>22.4%</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td></td>
<td></td>
<td>48.9%</td>
</tr>
</tbody>
</table>

Table 2. Descriptive frequencies for both the entire dataset and clean dataset.

*Three cases are missing from the employment status variable. As aforementioned, this variable was selected as the hot deck variable from which cases would be randomly devised.
<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Number of Valid Cases in $n = 734$ dataset</th>
<th>$n = 734$ dataset Mean(Standard Deviation)</th>
<th>$n = 446$ dataset Mean(Standard Deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>463</td>
<td>42.76(12.17)</td>
<td>42.73(12.08)</td>
</tr>
<tr>
<td>Years in Practice as a Nurse</td>
<td>460</td>
<td>16.34(12.84)</td>
<td>16.34(12.87)</td>
</tr>
<tr>
<td>Years in Practice in Current Location</td>
<td>456</td>
<td>8.95(8.61)</td>
<td>8.96(8.59)</td>
</tr>
<tr>
<td>Years in Practice with Small group/Unit/Floor</td>
<td>457</td>
<td>5.42(6.36)</td>
<td>5.45(6.40)</td>
</tr>
<tr>
<td>Number of Nurses Work with on a Daily Basis</td>
<td>449</td>
<td>15.97(27.59)</td>
<td>16.14(27.95)$^a$</td>
</tr>
</tbody>
</table>

Table 3. Descriptive characteristics for both the entire dataset and clean dataset.

$^a$n = 436 for this one descriptive statistic. It is likely hot deck could not compute all the missing values for this variable.
Data Collection

As mentioned, participants completed a survey concerning the key variables via Qualtrics.com, an online survey administration and data collection tool. Recent research (Cusson et al., 2008; Goolsby, 2007; Hart, Brennan, Sym, & Larson, 2009; Morris, Fenton, & Mercer, 2004; Nicotera et al., 2010) supports utilizing online survey software for data collection from a nurse sample. Although nurses had to complete the study while at work, the online nature of the study enabled participants to complete the study at their own pace. Furthermore, Dillman (2007) argues online surveys remove administrative burdens, while facilitating quick survey completion and automatic data collection (Reilly & Fitzpatrick, 2009). The backing of the sponsoring hospital was very important to data collection in the current context and likely added credibility to the study.

Importantly, individuals were notified of their rights as voluntary participants per The Ohio State University’s and Cleveland Clinic’s Institutional Review Board standards. Participants were offered no tangible incentive, notified they could discontinue the online survey at any point, and completed the survey anonymously. They were also notified they could receive a hard copy of the survey if this were more convenient for them. Institutional Review Board consent was obtained at both the university and hospital levels. Nurses were informed that both OSU and the hospital had approved the procedures.

Participants in this study were recruited through a tri-part method outlined below.

1. On October 6, 2011, the study was formally announced at an all-hospital nurse managers meeting. At this meeting, nurse managers were permitted to ask questions about the research purpose and process and were encouraged to take
flyers (please see Appendix A) to their unit/floor/small groups’ break room or central area. Approximately 80 flyers (some color and some in black and white) were distributed.

2. On October 12, 2011, the administrative associate to the Chief Nursing Officer (CNO) of the hospital sent all nurses (including LPNs and RNs of all statuses) active in the human resources system an email inviting them to participate in a research study (please see Appendix B).

3. On November 7, 2011, the administrative associate sent out a reminder email to all nurses active in the human resources system at that time (please see Appendix C).

On November 21, 2011 the study was closed. Importantly, the emails were sent to three primary groups: (1) nurses at the main campus of this large hospital system; (2) nurse managers at an ambulatory clinical institute; and (3) nurse managers in regional medical practices.

Dillman (2007) typically suggests a five-step approach to contacting and recruiting participants. However, the procedure here is trimmed to three steps, as it was deemed inappropriate to contact busy professionals five times. Dillman (2007) does suggest offering an additional survey mode (or two) to participants to improve response rates (Dillman, 2007). Thus, participants were informed that they could complete a pencil-and-paper version of the survey if they desired. Only one participant took advantage of the pencil and paper mode option and this survey was dropped to maintain consistency.
Response Rate

The exact number of nurses to which the survey was sent is unknown, thus an exact response rate cannot be calculated. Because of this, and the fact that the sample in question is nonprobability in nature, the American Association of Public Opinion Research’s (AAPOR, 2011) term “participation rate” will be employed. The participation rate is calculated in a similar fashion to how the response rate is. Since specific noncontacts (those individuals who could never be contacted) and refusals are unknown in this study, they will not be factored into the equation.

The assistant to the CNO at Cleveland Clinic estimated over 4,000 nursing employees received the email invitation and reminder. As mentioned, 766 responded to the survey and 34 were ineligible leaving the total number of participants at 734. However, 446 of these participants “completed” at least 80% of the survey. Thus, a best guess participation rate is as follows:

\[
\text{Participation rate: } \frac{766-34}{4,000} = 18.3\%
\]

And a best guess completed participation rate is as follows:

\[
\text{Completed participation rate: } \frac{446}{734} = 60.76\%
\]

Analysis of Early- Versus Late-Responders

Scholars have demonstrated the importance of testing systematic differences between those who respond to a survey “early,” or soon after receipt of the survey.

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1 Although the email invitations did not encourage forwarding the link in any way, the assistant noted it was very possible some nurse (and perhaps even non-nurse) employees forwarded the email on to others. Additionally, since the assistant sent the email blasts to nurse managers employed at the hospital system’s regional medical practices, thousands more nurses may have received the survey invitations. There are over 11,000 nursing professionals employed in this hospital system, but it is highly unlikely all 11,000 received the invitations.
invitation, and those “late” responders who respond after a reminder (Holbrook, Krosnick, & Pfent, 2008). Scholars have demonstrated late responders were more similar to those who did not respond to the survey compared to those who responded to the survey soon after an initial contact (e.g., Rada, 2005; Merkle, Bauman, & Lavrakas, 1993). Thus, early- versus late-responders were compared on key demographic and dependent variables. A majority of the present sample—the early-responders (n = 285, 63.9%)—completed the survey between October 6 and November 7. The remainder of the sample (n = 161, 36.1%), the late-responders, responded between November 7 and November 21.

Results of ANOVA tests show early responders (M = 41.47, SD = 11.70) were on average younger than the late responders (M = 44.97, SD = 12.45), F(1, 444) = 8.787, p = .003. Results of a Chi-square test demonstrate early- and late-responders to this survey were no more likely to be male or female respondents in either group χ²(1, N = 446) = 0.53, p > .05. Quite significantly, these two groups did not differ (1) in the number of years they had spent in their role, as a nurse, and at their current place of employment, all ps > .05, (2) with regard to the number of nurses they worked with on a day-to-day basis. Furthermore, early- versus late-responders did not differ on any key independent or dependent variable (all ps > .202) with the exception of nurse small group/unit/floor identity. Early-responders (M = 5.36, SD = .94) reported higher small group/unit/floor identification compared to late-responders (M = 5.11, SD = 1.17), F(1, 444) = 5.897, p = .016. Nevertheless, given the slight differences between these two groups on these two one items, results should be interpreted with caution.
Survey Measures

Various scale measures were employed to explore the variables in the proposed model. In this section, scales and scale items for operationalizing nurse identity, interaction involvement, learned helplessness, willingness to confront conflict, and tenure concepts are presented. Example items are provided along with their respective full scale (if applicable) and reliabilities in Appendix E. With the exception of demographic variables, items were measured on a Likert-type 7-point scale for frequencies (0 = Never, 6 = Always) and agreement (1 = Strongly Disagree, 7 = Strongly Agree).

Nurse Identity

Nurse identity is proposed to vary at three main levels: small group/unit/floor, role, and professional. Along with measuring nurse identity at these three levels, three items were employed to explore nurse identity bolstering strategies (Raman, 2008).

Nurse small group identity. Nurse small group identity refers to how little or how much a nurse views himself/herself as belonging to, being a part of, and being affected by the unit/floor/small group in which he/she functions. As such, participants completed survey items aimed at exploring this identity dimension. The following measures are example items used to examine nurse small group identification: “Overall, my being part of this unit/floor/small group has little to do with how I feel about myself” (reverse-scored) and “I have a strong sense of belonging to this unit/floor/small group,” (Luhtanen & Crocker, 1992; Phinney, 1992). Participants responded to eight items exploring nurse small group/unit/floor identity.

Nurse role identity. Two items were used to measure nurses’ identification with their specific role and assessment of how this personal role related to feelings about
themselves. One example item is: “Overall, my being a _____ (nurse role/type of nurse) ___________ is a reflection of who I am” (Phinney, 1992). These two survey items were programmed such that Qualtrics recorded participants’ nurse role response in a question prior to these items and subsequently piped the text into the nurse role survey items. Examples of a nurse role may include: assistant nurse manager, pediatric nurse practitioner, nurse educator, and nurse anesthetist.

*Professional nurse identity.* A total of nine survey items measured nurses’ identification with the global nursing profession. Three of the items relate to nurses’ sense of attachment and belonging to the nursing profession and are similar to the items exploring nurse role and small group identity. Two items explore the role patients may play in affecting nurse identity (nurses who do not regularly work with patients are able to respond as such) (Faberburg, 2001). The remaining items explore how nurses’ educational and organizational experiences affect their professional nurse identity (e.g., “I feel the organizational structure around me hinders the process of becoming the nurse I am”).

*Nurse identity bolstering strategies.* Three items were employed to uncover cognitive strategies by which nurses may bolster their identity (Raman, 2008). These items include: “When I see how uncaring most physicians are, I feel better about being a nurse,” “When I see how hard others have it in different professions, I feel thankful I’m a nurse” (Raman, 2008), and “My role as a nurse differentiates me from the field of medicine.”
Interaction Involvement

Nine items from Cegala’s (1981) Interaction Involvement Scale, which consists of 18 items, were employed in this study. Cegala’s (1981) items tap into the cognitive dimensions of interpersonal relationships and encourage participants to evaluate their communication practices. According to Cegala’s (1981) conceptualization, the scale contains four items measuring perceptiveness (reported alphas for this subscale range from .63 [Rubin & Graham, 1988] to .88 [Cegala, 1981]), six measuring attentiveness (alphas range from .64 [Duran & Kelly, 1988] to .87 [Cegala, 1981]), and eight measuring responsiveness (alphas range from .83 [Chen, 1989] to .90 [Cegala, 1981; Cegala et al., 1982]). For each of the three subscales, three items were chosen and each item loads well onto the three factors found nested in interaction involvement (see Cegala, 1981). Furthermore, these items were selected because some are positively and negatively phrased and examine the various facets of interaction involvement.

An example item from each subscale is: “Often in conversations with nurses on my unit/floor I will pretend to be listening when in fact I was thinking of something else” (attentiveness), “Sometimes during conversations I’m not sure what the other nurse on my unit/floor really means or intends by certain comments” (perceptiveness), and “Often during conversations with nurses on my unit/floor I feel like I know what should be said (like accepting a compliment, or asking a question), but I hesitate to do so” (responsiveness) (Cegala, 1981, p. 114). Importantly, these items focus on the nurses’ interactions with individuals on their unit, floor, or in their small working group.
Willingness to Confront Conflict

Nurses’ willingness to confront normative conflict may be important to ending cycles of conflict and learned helplessness in their small group. In this survey, nurse participants completed one item asking them to reflect on their conflict confrontation motivation: “I am motivated to confront conflict when it occurs on my unit/floor/small group.” This item narrows the scope of consideration to the individual and how willingness to confront conflict may relate to behavior. This level of specificity (i.e., the nurse’s individual viewpoint) should enable more precise evaluations of the relationships between the variables in question (Ajzen & Fishbein, 1977; Fazio & Roskos-Ewoldsen, 2005).

Learned Helplessness

Learned helplessness is referred to as “powerlessness” in some literature, and involves dimensions of not meeting goals; feeling expectations for participation and autonomy go relatively unmet; and being overly fearful of failure (Ashforth, 1989; Lindahl, Gilje, Norberg, & Soderberg, 2010). To explore evidence of learned helplessness in nurses, items from Nicotera and colleagues (2010) structural divergence scale were employed. These items tapped into learned helplessness notions, as they reflect the difficulties of the nurse seemingly going through the motions, and feeling he or she cannot please all stakeholders (i.e., hospital administration, patients, patients’

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2 Additionally, participants completed items are from Jehn’s (1995) Conflict Norms subscale (reliability alpha = .74). Participants also completed five items measuring their individual disagreement expression habits and conflict confrontation motivation. Two examples include: “I deal with conflict in my workplace” (measured on a frequency scale) and “When you have disagreed with this group, how often have you expressed your disagreement to other group members?” (measured on a frequency scale) (Packer & Chasteen, 2010). Nurses were also asked to complete three items concerning conflict resolution habits specific to their unit/floor/small group and these items are drawn from Jehn’s (1995) Conflict Resolution subscale. Overall, 11 items were originally proposed to operationalize the variable willingness to confront conflict, however, these items presented an overall low scale reliability and thus did not appear to zero-in on the willingness to confront conflict concept.
families, physicians, managers, etc.) at once. Two example items include: “I feel like I am ‘between a rock and a hard place’,” and “I feel obligated to fulfill opposing demands at the same time,” (p. 376). A total of four of Nicotera’s and colleagues’ (2010) items were used to measure learned helplessness.

Learned helplessness is associated with feelings of loss of control (Harvey, Treadway, Heames, & Duke, 2009; Maier & Seligman, 1976; Rothbaum, Weisz, & Snyder, 1982). Thus, two items from Ashforth’s (1989) subscale for examining unmet expectations for workplace control were used to examine perceived control in the nursing context. An example is: “When you think back over the last month did you have as much direct control over the methods and procedures for doing your work as you thought you would have?” (p. 219). Respondents were also asked how frequently they felt frustrated over the past month while at work. Participants responded to seven items exploring learned helplessness.

**Tenure**

Research demonstrates intention to leave is positively correlated with turnover and thus an appropriate operationalization of this variable (Hayes et al., 2006; Tett & Meyer, 1993). Nurses were asked to complete items related to current tenure, tenure intentions, and organizational commitment.³ Participants were also asked to record (1)

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³Additionally, tenure is predicated on organizational commitment (Cohen, 1993; Porter, Crampon, & Smith, 1976; Somers, 1995; Tett, & Meyer, 1993; Vandenberghe & Tremblay, 2008) and this is the case in the nursing profession (Lum et al., 1998; Tai, Bame, Robinson, 1998; Wagner, 2007). Meyer and Allen (1991; Allen & Meyer, 1990) argue organizational commitment is comprised of three components: affective (the “desire” to stay), normative (an “obligation” to stay), and continuance (a “need” to stay) commitment (Meyer & Allen, 1991, p. 63). Meyer and Allen’s (2004) Three-Component Model of commitment scale contains items exploring the three commitment dimensions for a total of 18 items and 11 are used in the current study. Example items include: “I would be very happy to spend the rest of my career on this unit/floor/small group,” (affective commitment; reliability alphas range from .74 to .89), “I would not leave my unit/floor/small group right now because I have a sense of obligation to the people in it” (normative commitment; reliability alphas range from .69 to .79), and “If I had not already put so much of myself into this unit/floor/small group, I might consider working elsewhere” (continuance commitment; reliabilities range from .69 to .84) (see Appendix 5) (Allen & Meyer, 1990; Allen & Smith, 1987; Bobocel et al., 1988; McGee & Ford, 1987; Meyer & Allen, 1984, 1986; Meyer et al., 1989; Meyer et al., 2002; Withey, 1988). Overall, participants responded to
the number of years they have practiced as a nurse (overall) and (2) the number of years they have worked in their current (and primary) unit/floor/small group (these items are bolded for being critical to this study). Nurses recorded their tenure intentions to remain a part of their specific unit/floor/small group, as a representative of their specific role, and with the larger organizational setting (i.e., the hospital at which they work). They reported tenure intentions in number of years.

Demographics

Participants also completed a number demographic items. The item, “How many years have you worked as a (nurse role/type of nurse),” is dropped from any related analyses due to a low response rate, 39%. The location of this question in the survey and/or the question’s wording likely led to this poor response rate.

The survey concluded with an open-ended item requesting nurses’ comments on their identity, communication practices, and conflict and another open-ended item requesting feedback regarding the survey itself. These final two questions will not be examined in the present study.

Survey Layout

Items inside question batteries (e.g., Cegala’s [1981] scale) were randomized and so were sections of the survey exploring one facet of a key variable. For instance, two blocks of items examined commitment and these blocks were randomized along with the items inside the blocks. This randomization was done to reduce possible order effects (Kalton & Schuman, 1982; McFarland, 1981; Weisberg, 2005). Likewise, the survey was designed to take participants no more than 15 to 20 minutes to complete. In

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16 items operationalizing tenure and employment commitment. These items will not be analyzed here, as factor analysis demonstrated organizational commitment and identity overlapped significantly.
accordance with the Total Survey Error Approach, special care was taken to balance quality, survey costs, participant burden, and survey length (Groves, 2004; Weisberg, 2005).

Analytic Strategy

Structural Equation Modeling (SEM) was employed to examine the relationships between nurse identity, interaction involvement, willingness to confront conflict, learned helplessness, and tenure intentions. Structural equation modeling refers to body of statistical analysis methods including covariance structure analysis, covariance structure modeling, and analysis of covariance structures (Kline, 2011). While some have referred to SEM as causal modeling, SEM analysis results should not necessarily be considered causal. A key advantage, however, is that SEM allows for simultaneous evaluation of measurement models and assessments of relationships among the key focal concepts of interest (Kline, 2011).

SEM is an appropriate methodological and statistical tool for exploring health communication phenomena (Clayton, Mishel, & Belyea, 2006; Stephenson, Holbert, & Zimmerman, 2006). Health communication phenomena are quite often process-oriented and a process-orientation is one of the hallmarks of SEM. SEM permits simultaneous estimation of error variances to account for correlated error between the measures (Schumacker & Lomax, 2010). Furthermore, SEM software, specifically AMOS (Analysis of Moment Software), is utilized in the present study as it permits the exploration of several indirect and direct effects in one model (Holbert & Stephenson, 2003).
CHAPTER 4

RESULTS

In this chapter, the results of reliability tests for each variable in the model are presented. The results of the research questions and hypotheses are presented following the exploration of key model variables.

Scale Formation

In this section, each scale and subscale for each variable in the model is discussed. Reliabilities, the total number of items in each scale, and scale means and standard deviations for each scale created are provided in Table 4.

*Nurse Small Group/Unit/Floor Identity*

The seven items (please see Appendix E) designed to measure nurse small group/unit/floor identity formed one scale \((M = 5.28, SD = 1.03)\).

*Nurse Role Identity*

Participants completed two items exploring nurse role identity and these two items formed a reliable scale \((M = 5.12, SD = 1.28)\).

*Professional Nurse Identity*

Participants responded to three items exploring their identification with the nursing profession. These items also formed a reliable scale \((M = 5.70, SD = 1.01)\).
Interaction Involvement

Nurses completed nine items exploring their perceived level of interaction involvement with members of their small group/unit/floor. Responsiveness, attentiveness, and perceptiveness were each measured with three separate items; however, these three-item subscales did not prove to be overly reliable. Subsequently, interaction involvement is measured with a single, reliable scale using all nine items. The mean of this scale ($M = 5.68$, $SD = .75$) demonstrates nurses generally agree they are interactionally-involved with the other nurses employed in their small group/unit/floor.

Willingness to Confront Conflict

Nurses responded to one item asking them whether or not they were motivated to confront conflict when it occurred on their small group/unit/floor. Overall, nurses somewhat agreed with this item ($M = 4.50$, $SD = 1.60$).

Learned Helplessness

Learned helplessness was measured using 11 items divided into two scales. Both subscales were reliable. The first scale “perceived learned helplessness” includes the first four items listed in the learned helplessness section in Appendix E. On average, participants responded near the midpoint with regards to feelings of learned helpless ($M = 3.89$, $SD = 1.35$). The second scale labeled, “perceived lack of control,” assesses nurses’ perception of their ability to influence practices in their work environment and is comprised of the remaining three items in this section of the survey. These three items were measured on a frequency scale of 0 (“Never”) to 6 (“Always”). Two of the three items (“Thinking back of the last month, did you have as much direct control over the methods and procedures for doing your work as you thought you would have,” and
“Thinking back over the last month, did you have as much influence as you thought you would have over the decisions that directly affect your job?”) in this scale were reverse-coded. Again, nurses responded near the midpoint with regard to the frequency at which they felt little job-related control ($M = 2.94, SD = 1.21$).

**Tenure Intentions**

Nurses responded to three items asking them to predict how long they would remain a part of their small group/unit/floor, function in their current role (e.g., nurse manager, staff nurse, etc.), and stay at their current employment site, the Cleveland Clinic. An omnibus $F$-test demonstrates nurses’ tenure intentions vary at these three levels and Bonferroni’s correction was employed to test specific differences among the levels, Wilk’ Lambda = .715, $F(2,444) = 88.58, p < .001$ (Hayes, 2005). Nurses’ reported intending to stay employed in their current role (e.g., nurse practitioner, nurse manager, staff nurse, etc.) ($M = 9.73, SD = 9.00$) statistically longer than their intentions to stay in/on their current small group/unit floor ($M = 6.17, SD = 5.78$), $p < .001$ (univariate). Nurses reported intending to stay employed at their current place of employment for an average of nearly 11 years ($M = 10.73, SD = 9.61$) and this tenure prediction is significantly longer than their small group/unit/floor prediction, $p < .001$ (univariate). Role and location tenure predictions were marginally statistically different from one another, $p = .077$ (univariate).
<table>
<thead>
<tr>
<th>Variables/Scales &amp; Subscales</th>
<th>Number of Items</th>
<th>Mean(SD)</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Identity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse small group/unit/floor identity</td>
<td>7</td>
<td>5.28(1.04)</td>
<td>.83</td>
</tr>
<tr>
<td>Nurse role identity</td>
<td>2</td>
<td>5.12(1.28)</td>
<td>.75</td>
</tr>
<tr>
<td>Nurse professional identity</td>
<td>3</td>
<td>5.70(1.01)</td>
<td>.71</td>
</tr>
<tr>
<td>Interaction Involvement</td>
<td>9</td>
<td>5.68(.75)</td>
<td>.80</td>
</tr>
<tr>
<td>Willingness to Confront Conflict</td>
<td>1</td>
<td>4.50(1.60)</td>
<td>N/A</td>
</tr>
<tr>
<td>Learned Helplessness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived learned helplessness</td>
<td>4</td>
<td>3.89(1.35)</td>
<td>.78</td>
</tr>
<tr>
<td>Perceived lack of control</td>
<td>3</td>
<td>2.94(1.21)</td>
<td>.76</td>
</tr>
<tr>
<td>Tenure Intentions (in years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse small group/unit/floor</td>
<td>1</td>
<td>6.17(5.78)</td>
<td>N/A</td>
</tr>
<tr>
<td>Nurse role</td>
<td>1</td>
<td>9.73(9.00)</td>
<td>N/A</td>
</tr>
<tr>
<td>Current Location</td>
<td>1</td>
<td>10.73(9.61)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Table 4. Variables and their pertinent subscales including means, standard deviations, and reliability values.*

Assessment of Univariate and Multivariate Normality

Data normality is an important factor to consider in the design and interpretation of structural equation models (Lei & Lomax, 2005). In order to determine univariate nonnormality, the absolute value of the sum of skewness and kurtosis are evaluated. Summed skewness and kurtosis of less than one constitutes slight univariate nonnormality; values between one and 2.3 are considered moderately nonnormal; and values greater than 2.3 are severely nonnormal (Lei & Lomax, 2005; Muthen, 1989).
Skewness and kurtosis of the proposed variables and related subscales are listed in Table 5 below. Overall, the professional nurse identity and tenure intentions variables present the most univariate skewness and kurtosis issues with these variables being severely nonnormal (Lei & Lomax, 2005; Muthen, 1989). Univariate nonnormality in SEM is an issue, but not (Byrne, 2009; Mardia, 1970, 1974) as imperative as multivariate nonnormality. Mardia’s normalized estimate of multivariate kurtosis indicates nonnormal data and is reported in Table 5 below. With some presence of nonnormality, results should be interpreted with caution. However, even though the outcome variables in the SEM model are nonnormal, the SEM itself still demonstrates good fit.
<table>
<thead>
<tr>
<th>Variables/Scales&amp; Subscales</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Absolute Sum of Skewness and Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Identity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse small group/unit/floor identity</td>
<td>-.560</td>
<td>.247</td>
<td>.807</td>
</tr>
<tr>
<td>Nurse role identity</td>
<td>-.647</td>
<td>.011</td>
<td>.658</td>
</tr>
<tr>
<td>Nurse professional identity</td>
<td>-1.167</td>
<td>2.098</td>
<td>3.265</td>
</tr>
<tr>
<td>Interaction Involvement</td>
<td>-.491</td>
<td>.211</td>
<td>.702</td>
</tr>
<tr>
<td>Willingness to Confront Conflict</td>
<td>-.467</td>
<td>-.829</td>
<td>1.296</td>
</tr>
<tr>
<td>Learned Helplessness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived learned helplessness</td>
<td>.098</td>
<td>-.708</td>
<td>.806</td>
</tr>
<tr>
<td>Perceived lack of control</td>
<td>.200</td>
<td>-.617</td>
<td>.817</td>
</tr>
<tr>
<td>Tenure Intentions (in years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse small group/unit/floor</td>
<td>2.258</td>
<td>6.483</td>
<td>8.741</td>
</tr>
<tr>
<td>Nurse role</td>
<td>1.733</td>
<td>2.793</td>
<td>4.526</td>
</tr>
<tr>
<td>Current Location</td>
<td>1.587</td>
<td>2.915</td>
<td>4.502</td>
</tr>
</tbody>
</table>

Mardia’s normalized estimate of multivariate kurtosis* 25.223 17.192 Critical Ratio

*Table 5. Variables and their skewness and kurtosis with the absolute skewness and kurtosis provided.*
*Mardia’s normalized estimate of multivariate kurtosis is provided in the last table line.*
Model Summary

In this section, the results of a latent variable composite model created using AMOS are presented and then compared to the final, best-fitting model based on suggestions provided by AMOS. For ease and discussion purposes, the original model (Figure 2) is once again presented:

![Model diagram](image)

*Figure 2. Model comprised of nurse identity at three levels, interaction involvement, willingness to confront conflict, learned helplessness, and tenure.*

A holistic picture of the final SEM model is provided here including beta weights and probabilities is provided here (Figure 3). Following the presentation of theses results, the research questions and hypotheses are described in detail.
To begin, nurse identity, learned helplessness, and tenure intentions comprise the three latent (unobserved and measured through proxy items) constructs in this model (Hayduk, 1996). Nurse identity, as posited, is made of three observed variables: small group/unit/floor identification, nurse role identification, and identification with the nursing profession. Two observed variables—perceived learned helplessness and perceived lack of control—make up the latent variable learned helplessness. The final latent variable is tenure intentions, which contains three observed variables: tenure
intentions for how long nurses are willing to stay (1) a part of their small group/unit/floor, (2) inside their current role, and (3) with their current employer.

Both interaction involvement and willingness to confront conflict were included in the model as observed constructs. As aforementioned, the items measuring interaction involvement formed one scale, thus making one observed variable, and willingness to confront conflict is comprised of a single item measure. The items measuring willingness to confront conflict proved to be better measures of small group/unit/floor conflict management tendencies than actual confrontation willingness or motivation.

Both these latent and observed variables were placed into AMOS using maximum likelihood estimation and a measurement model was created. Error terms were assigned to both the observed and latent variables. The model itself consisted of 10 observed variables and 16 unobserved variables for a total of 26 variables. Thirteen variables were exogenous (not determined by variables inside the model) and 13 endogenous (determined by variables present in the model) (Pett & Clayton, 2010). A total of 37 parameters were measured, with 28 degrees of freedom, and AMOS output indicated an initial poor fit for the measurement model tested. Reasons for this poor fit are described below and summarized in Table 7.

The RMSEA (root mean square error of approximation) is considered an important model fit index (Burne, 2001; Clayton & Pett, 2008). RMSEA theoretically follows the noncentral Chi-square distribution and “allows for discrepancies between model-implied and sample covariances up to the level of the expected $X^2$” (Kline, 2011, p. 205). RMSEA in SEM should be less than .05 with a 90% lower bound below .05 and a narrow confidence interval (Chen, Curran, Bollen, Kirby, & Paxton, 2008; Clayton &
Pett, 2008). The measurement model tested had an RMSEA of .386 with a 90\% confidence interval of .371 to .401 and these figures demonstrate unacceptable fit.

Comparative fit index (CFI) should be greater than .95 and the measurement model did not provide acceptable values for the CFI, as the CFI here was .00 (Holbert & Stephenson, 2002; Hu & Bentler, 1999; Quick & Kim, 2009). The Chi-square for this model, with 28 degrees of freedom, was 1881.22, \( p < .001 \). This high Chi-square number and significant \( p \)-value both indicate a poor-fitting model (Hooper, Coughlan, & Mullen, 2008). Chi-square is a commonly employed fit measure for SEM, however it can be sensitive to sample size and has even been called Chi-square “badness of fit” (Hooper et al., 2008; Kline, 2011). Thus, the large Chi-square discovered in this measurement model likely reflects both a poor-fitting model and a sample size Chi-square is unable to accommodate. While Chi-square may be statistically sensitive, it is not always practical in determining model fit (Cheung & Rensvold, 2002).

Following the creation of the measurement model, a second model was created which took into account the parameter changes suggested by AMOS. Improperly fitted measurement models are quite common and fixable given researchers take into account potential flaws with modification indices (Kline, 2011; Stephenson & Holbert, 2008). AMOS proposed the addition of a path from small group/unit/floor tenure intentions to small group/unit/floor nurse identity and indicated the Chi-square would be reduced by 4.006 (parameter change = .011). The suggestion of this additional path likely came as the result of correlated error terms between observed variables (Stephenson & Holbert, 2008). Subsequently, a path from the small group/unit/floor tenure intentions error term to the small group/unit/floor small group identity error term was added. The path was
added to these variables’ error terms as direct paths from and observed variable not already directly connected to a latent variable should not be created. The addition of this covariance path fits theoretically as there should be shared variance between these variables due to their both possessing the same level of specificity (Stephenson & Holbert, 2008).

Consequently, the final model created includes all proposed variables \( n = 26 \), with the latent and observed variables remaining the same from the measurement to the final model. Thus, this model is comprised of 13 exogenous variables and 13 endogenous variables. Bootstrapping was employed for the creation of this model, as it is useful for managing indirect effects with non-normal distributions (Hayes, 2009). AMOS created 200 usable bootstrap estimates and only two were rejected as solutions for them were not found.

No covariances were originally designated, yet now the model includes one, as mentioned above. The paths from interaction involvement to tenure intentions and from motivation to confront conflict to tenure intentions were dropped due to nonsignificant beta-weights \( b = .024, p = .919; b = .162, p = .455 \).

The RMSEA for this final model is .056 (90% confidence interval = .039 to .074), which is acceptable, as again, RMSEA should be close to .05 (Beaudoin & Tao, 2007; Browne & Cudeck, 1993; Chen et al., 2008; Hu & Bentler, 1999). The number of distinct sample moments is 65 with a total of 37 distinct parameters estimated provides 28 degrees of freedom for this model. The Chi-square for this model, with 28 degrees of freedom, was 67.45, \( p < .001 \), and the CFI was .96, which indicates an acceptable fit (Holbert & Stephenson, 2002).
Three parameter constraints (the minimum for AMOS to complete the model sequencing) were added to the model. The beta weights for the paths from professional identity to nurse identity, learned helplessness to perceived learned helplessness, and from tenure intentions to current location tenure were all set to 1. Other than these three parameter constraints, AMOS was free to estimate parameters (Kline, 2011). AMOS suggested no other modifications related to paths in this final model. AMOS provided the modification indices for covariances that could be added, but the addition of these covariances did not make theoretical sense.

<table>
<thead>
<tr>
<th></th>
<th>Initial Model</th>
<th>Final Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total variables</strong></td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td><strong>Endogenous variables</strong></td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td><strong>Exogenous variables</strong></td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td><strong>Observed variables</strong></td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Unobserved variables</strong></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Distinct sample moments</strong></td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td><strong>Distinct parameters estimated</strong></td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td><strong>Degrees of freedom (df)</strong></td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td><strong>Covariances</strong></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>CFI</strong></td>
<td>.00</td>
<td>.96</td>
</tr>
<tr>
<td><strong>CMIN(df)</strong></td>
<td>1881.222(28), p &lt; .001</td>
<td>67.452(28), p &lt; .001</td>
</tr>
<tr>
<td><strong>CMIN/df</strong></td>
<td>67.187(28), p &lt; .001</td>
<td>2.409(28), p &lt; .001</td>
</tr>
<tr>
<td><strong>RMSEA(90% CI)</strong></td>
<td>.386(.371, .401), p &lt; .001</td>
<td>.056(.039, .074), p = .255</td>
</tr>
</tbody>
</table>

Table 6. Model fit indices and statistics for the structural equation models created.
Examination of Individual RQs and Hypotheses

In this section, the results of the three RQs and the hypotheses are presented.

**RQ1**

The purpose of RQ1 was to explore how nurses perceive their identity (a) as a (member of the nursing profession, at-large; (b) in terms of their role; and (c) with regard to their small group/unit/floor. Overall, nurses responded between “somewhat agree” and “agree” to items relating to nurse identity. A within-subjects ANOVA using Bonferroni’s correction was employed to test specific differences among the nurse identity levels. The omnibus F-test demonstrates nurses more strongly identify with certain dimensions of their overall nurse identity than others, Wilk’ Lambda = .769, $F(2,443) = 66.41, p < .001$ (Hayes, 2005). Nurses identify most strongly with the ethos of the nursing profession ($M = 5.70, SD = 1.01$) compared to both their small group/unit/floor identity ($M = 5.28, SD = 1.04, p = .018$, univariate) and their role identity ($M = 5.12, SD = 1.28, p < .001$, univariate). Nurses also more highly identify with their small group/unit/floor than their particular role and this mean difference is significant, $p < .001$, univariate.

**RQ2**

The purpose of RQ2 is to explore demographic and environmental characteristics possibly associated with nurse identity. The demographic comparisons made here include age; total years employed as a nurse; total years of nursing practice; years in current practice with the small group/unit/floor; years practiced at the current location; years practiced at the nurses’ current place of employment; number of nurses a nurse
works with on a daily basis; hourly versus salary status; current pursuit of higher nursing education (dichotomized); and current educational attainment.

Age does not predict professional nurse identity \((p > .05)\), or nurse role identity \((p > .05)\); however, age does predict small group/unit/floor nurse identity, \(b = -.32, t(444) = -2.80, p < .005\), such that older nurses are less identified with their small group/unit/floor than younger nurses.

The number of years nurses’ have spent at their current place of employment, years spent as a nurse in the nurse’s current position within her/his small group/unit/floor, and total years as a nurse are all unrelated to all three levels of nurse identity, all \(p’s > .05\). The number of nurses on the nurse’s small group/unit/floor is also unrelated to the three identity dimensions explored here, all \(p’s > .05\).

Nurses are either paid hourly rates or by salary and those receiving salary will make no additional compensation for any hours worked over 40 hours per week (USDHHS HRSSA, 2010). Nurses paid hourly tend to be floor nurses working specific shifts, whereas nurses paid salary are generally those with more education and with highly-defined roles (e.g., nurse practitioners, nurse educators, etc.). Nurse managers are paid more than staff nurses and advance practice nurses (e.g., nurse practitioners, clinical nurse specialists, etc.) typically earn more than staff nurses and nurse managers (USDHHS HRSSA, 2010). Salaried nurses in this study reported they more highly-identified with their nursing role \((n = 119, M = 5.47, SD = 1.22)\) compared to nurses paid hourly \((n = 322, M = 5.00, SD = 1.28)\), \(F(1,439) = 12.43, p < .001\). There were no differences between hourly and salary nurses as defined by small group/unit/floor identity or nurse professional identity.
Nurses’ pursuit of higher education is not associated with increased professional nurse identity, small group/unit/floor identity, or nurse role identity, all p’s > .05. However, nurse identity at the three conceptualized levels does vary per nurses’ present educational attainment. The categories of nurses’ highest educational degree were collapsed to the following three levels: (1) associate’s degrees, LPN certifications, practical nursing certificates, and diploma nurses (n = 170; 38.1%); (2) Bachelors of Science in Nursing (BSN) (n = 220; 50%); and (3) master’s degrees and all education above the master’s degree (e.g., Ph.D., Doctor of Nursing Practice) (n = 50; 11.4%). Those nurses reporting no education or a categorizable educational degree (n = 6) were excluded from these analyses. One-way ANOVAs were conducted to examine group differences on each identity dimension per educational attainment and Bonferroni’s correction, set at p = .017 (for three possible comparisons), is used to divide the alpha level appropriately (Hayes, 2005).

Tests demonstrate nurses’ small group/unit/floor identity is unrelated to their educational attainment, all p’s > .05. However, nurses possessing a master’s degree or above reported the strongest nurse role identity (M = 5.72, SD = 1.29) compared to nurses possessing an associate’s degree or diploma (M = 4.87, SD = 1.36, p < .001) and nurses possessing a BSN (M = 5.16, SD = 1.19, p = .014). Nurses with a BSN reported being no more identified with their role than those with an associate’s/diploma. With regard to professional nurse identity, again, nurses possessing a master’s degree or above reported feeling the most identified with the nursing profession (M = 6.07, SD = 1.05) compared to nurses possessing an associate’s degree or diploma (M = 5.66, SD = .94, p = .015).
There is no difference between nurses possessing an associate’s degree or diploma or a BSN on the variable professional nurse identity.

Direct Effect Hypotheses

Prior to presenting results of the individual hypotheses and research questions, the relationships forming the latent variables are examined. Importantly, these results should not be considered in isolation, but in terms of the model as a whole (please see Table 7 for a complete list of beta weights, standard errors, and p-values). Kline (2011) notes researchers should interpret path coefficients in SEM just as they would regression coefficients in multiple regression.

Nurse role identity \( [\beta = 1.599, \ p < .001] \) and small group/unit/floor identity \( [\beta = .903, \ p < .001] \) are significant components of the latent variable nurse identity. Perceived lack of control is a statistically significant component of the latent variable learned helplessness \( [\beta = .777, \ p < .001] \). Role-specific tenure intentions \( [\beta = 1.031, \ p < .001] \) and small group/unit/floor tenure intentions \( [\beta = .676, \ p < .001] \) comprise overall tenure intentions. As abovementioned, the paths from nurse identity to nurse professional identity, learned helplessness to perceived learned helplessness, and tenure intentions to tenure intentions for the current location were constrained to one.

The overall model encompasses a number of significant indirect and direct effects. First, consistent with H1, nurse identity positively and directly predicts interaction involvement \( [\beta = .195, \ p = .001] \) (H1a), willingness to confront conflict \( [\beta = .328, \ p = .011] \) (H1b), and tenure intentions \( [\beta = 1.659, \ p = .006] \) (H1c). Nurse identity is marginally and negatively predictive of learned helplessness and in the direction expected \( [\beta = -.178, \ p = .086] \) (H1d).
H2 predicted nurses’ interaction involvement would positively relate to willingness to confront conflict (H2a) and tenure intentions (H2b) and negatively relate to learned helplessness (H2c). The more nurses perceive themselves as interactionally-involved in conversation positively predicts willingness to confront conflict \[b = .333, p < .001\] (H2a) and negatively predicts learned helplessness \[b = -.534, p < .001\] (H2c). However, as mentioned, the path from interaction involvement to tenure intentions is not significant and dropped from the model \(p > .05\) (H2b).

H3 predicted nurses’ willingness to confront conflict would negatively relate to learned helplessness (H3a) and positively relate to tenure intentions (H3b). Results demonstrate nurses’ willingness to confront conflict is marginally associated with lessened learned helplessness \[b = -.068, p = .066\] (H3a). Willingness to confront conflict is completely unrelated to nurses’ tenure intentions \(p > .05\) and was dropped from the model (H3b).

Finally, H4 examined a possible negative relationship between learned helplessness and tenure intentions. Indeed, learned helplessness lessens the number of years nurses intend to stay \[b = -1.628, p < .001\] (H4).
<table>
<thead>
<tr>
<th>Direct Path</th>
<th>Beta Weight</th>
<th>Standard Error</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse identity → Nurse small group/unit/floor identity</td>
<td>.903</td>
<td>.093</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Nurse identity → Nurse role identity</td>
<td>1.599</td>
<td>.154</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Nurse identity → Nurse professional identity</td>
<td>1.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse identity → Interaction involvement</td>
<td>.195</td>
<td>.061</td>
<td>.001</td>
</tr>
<tr>
<td>Nurse identity → Willingness to confront conflict</td>
<td>.328</td>
<td>.129</td>
<td>.011</td>
</tr>
<tr>
<td>Nurse identity → Learned helplessness</td>
<td>-.178</td>
<td>.104</td>
<td>.086</td>
</tr>
<tr>
<td>Nurse identity → Tenure intentions</td>
<td>1.659</td>
<td>.605</td>
<td>.006</td>
</tr>
<tr>
<td>Interaction involvement → Willingness to confront conflict</td>
<td>.333</td>
<td>.101</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Interaction involvement → Learned helplessness</td>
<td>-.534</td>
<td>.089</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Interaction involvement → Tenure intentions</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to confront conflict → Learned helplessness</td>
<td>-.068</td>
<td>.037</td>
<td>.066</td>
</tr>
<tr>
<td>Willingness to confront conflict → Tenure intentions</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learned helplessness → Perceived lack of control</td>
<td>1.000*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Parameter constrained.
Learned helplessness $\rightarrow$ Learned helplessness $0.777 \quad 0.099 \quad < .001$

Learned helplessness $\rightarrow$ Tenure intentions $-1.628 \quad 0.398 \quad < .001$

Tenure intentions $\rightarrow$ Small group/unit/floor tenure intentions $0.676 \quad 0.062 \quad < .001$

Tenure intentions $\rightarrow$ Role tenure intentions $1.031 \quad 0.092 \quad < .001$

Tenure intentions $\rightarrow$ Location tenure intentions $1.000*$

* Parameter constrained.

Indirect Effect Hypotheses

A number of indirect effects within the model were hypothesized (please see Table 7). Indirect effects are the statistical product of the direct effects from which the indirect effects are derived (Kline, 2011). The significance of these indirect effects was determined using AMOS’ output for the indirect effects’ upper and lower bounds and associated p-values.
<table>
<thead>
<tr>
<th>Indirect Path</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse identity → Interaction involvement → Willingness to confront conflict</td>
<td>.022</td>
<td>.136</td>
<td>.01</td>
</tr>
<tr>
<td>Nurse identity → Interaction involvement → Willingness to confront conflict → Learned helplessness</td>
<td>-.237</td>
<td>-.054</td>
<td>.01</td>
</tr>
<tr>
<td>Nurse identity → Willingness to confront conflict → Learned helplessness → Tenure intentions</td>
<td>.102</td>
<td>.942</td>
<td>.013</td>
</tr>
<tr>
<td>Interaction involvement → Willingness to confront conflict → Learned helplessness</td>
<td>-.057</td>
<td>.006</td>
<td>.123</td>
</tr>
<tr>
<td>Interaction involvement → Willingness to confront conflict → Learned helplessness → Tenure intentions</td>
<td>.468</td>
<td>1.409</td>
<td>.01</td>
</tr>
<tr>
<td>Willingness to confront conflict → Learned helplessness → Tenure intentions</td>
<td>-.035</td>
<td>.288</td>
<td>.122</td>
</tr>
</tbody>
</table>

Table 8. Lower and upper bounds with 95% confidence intervals and p-values for indirect pathways’ in the SEM model.

To begin, H5 predicted nurses’ interaction would mediate the relationship between nurse identity and willingness to confront conflict. Results demonstrate nurse identity is positively linked to willingness to confront conflict through interaction involvement (95% CI [.022, .136], p = .01) (H5) (see Figure 4).
Figure 4. *Indirect path from nurse identity to willingness to confront conflict through interaction involvement with confidence interval, beta coefficients, and probabilities included.*

*** $p < .001$, ** $p < .01$, * $p < .05$.

H6 posited willingness to confront conflict would mediate the relationship between interaction involvement and learned helplessness. Results demonstrate no such mediated relationship ($p > .05$) (H6). Furthermore, learned helplessness does not significantly mediate the relationship between willingness to confront conflict and tenure intentions ($p > .05$) (H7).

AMOS allows for the testing of indirect path from one variable through the remaining variables in the model. In other words, in testing a relationship between a variable posited as an original independent variable and a later dependent variable, AMOS will account for the relationship between the independent variable in question and other independent or mediating variables in the model. Thus, the mediated relationship between nurse identity and tenure intentions through learned helplessness takes into account the relationships between (1) nurse identity and interaction involvement, (2) interaction involvement and willingness to confront conflict, (3) interaction involvement
and learned helplessness, (4) willingness to confront conflict and learned helplessness, and learned helplessness and tenure intentions (H8). Thus, the indirect path from nurse identity to tenure intentions, through interaction involvement, willingness to confront conflict, and learned helplessness to tenure intentions is statistically significant (95% CI [.102, .942], \( p = .013 \)) (Figure 5).

Figure 5. Indirect path from nurse identity to tenure intentions through interaction involvement, willingness to confront conflict, and learned helplessness with confidence interval, beta coefficients, and probabilities included.

*** \( p < .001 \), * \( p < .05 \), # \( p < .10 \)

Although not originally hypothesized, two additional significant indirect paths within the model are noteworthy. First, the indirect path from nurse identity to learned
helplessness through interaction involvement and willingness to confront conflict is statistically significant (95% CI [-.237, -.054], \( p = .01 \)) (Figure 6).

Figure 6. Indirect path from nurse identity to learned helplessness through interaction involvement and willingness to confront conflict with confidence interval, beta coefficients, and probabilities included.

*** \( p < .001 \), ** \( p < .01 \), * \( p < .05 \), # \( p < .10 \)

Also, both willingness to confront conflict and learned helplessness mediate the relationship between nurses’ interaction involvement and tenure predictions (95% CI [.468, 1.409], \( p = .01 \)) (Figure 7).
Figure 7. Indirect path from nurse identity to learned helplessness through interaction involvement and willingness to confront conflict with confidence interval, beta coefficients, and probabilities included.

*** $p < .001$, ** $p < .01$, * $p < .10$

The following table (Table 8) provides a summary of all the hypothesized direct and indirect relationships and whether or not they are significant (the RQs and two additional mediation analyses are not included).
<table>
<thead>
<tr>
<th>Hypothesis Number</th>
<th>Relationship</th>
<th>Direction(s)</th>
<th>Supported</th>
<th>Unsupported</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Nurse identity → Interaction involvement</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H1b</td>
<td>Nurse identity → Willingness to confront conflict</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H1c</td>
<td>Nurse identity → Tenure intentions</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H1d</td>
<td>Nurse identity → Learned helplessness</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H2a</td>
<td>Interaction involvement → Willingness to confront conflict</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H2b</td>
<td>Interaction involvement → Tenure intentions*</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H2c</td>
<td>Interaction involvement → Learned helplessness</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H3a</td>
<td>Willingness to confront conflict → Learned helplessness</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H3b</td>
<td>Willingness to confront conflict → Tenure intentions*</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Learned helplessness → Tenure intentions</td>
<td>-</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H5</td>
<td>Nurse identity → Interaction involvement → Willingness to confront conflict</td>
<td>+</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>H6</td>
<td>Interaction involvement → Willingness to confront conflict → Learned helplessness</td>
<td>+, -, -</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Table 9. Summary of hypothesized relationships in the SEM model.
*Relationship eliminated in the final SEM model.
H7  Willingness to confront conflict  \rightarrow \text{Learned helplessness} \rightarrow \text{Tenure intentions}  
\rightarrow -, -, + \quad X

H8  Nurse identity \rightarrow \text{Willingness to confront conflict} \rightarrow \text{Learned helplessness} \rightarrow \text{Tenure intentions}  
\rightarrow +, -, -, + \quad X

\textit{Table 9. Summary of hypothesized relationships in the SEM model.}
*Relationship eliminated in the final SEM model.

\textit{RQ3}

Finally, RQ3 explores whether or not nurses’ feelings of learned helplessness is associated with identity bolstersing. The two subscales for exploring learned helplessness, “perceived learned helplessness” and “lack of perceived control” (means and standard deviations are presented in Table 4), plus the three items examining identity bolstering were employed to explore possible associations. In terms of descriptives, nurses feel relatively neutral toward the statements, “When I see how uncaring most physicians are, I feel better about being a nurse” ($M = 3.94, SD = 1.80$) and “When I see how hard others have it in other professions, I feel thankful I’m a nurse” ($M = 4.10, SD = 1.67$). Nurse participants somewhat agree with the statement, “My role as a nurse differentiates me from the field of medicine” ($M = 4.85, SD = 1.76$). These three statements measured nurses’ identity bolstering strategies.

Regression analyses show the learned helplessness scale positively predicts nurses bolstering their identity via comparing themselves to uncaring physicians, $b = .246, t(444) = 5.34, p < .001$, but negatively predicts comparisons of their profession to the
difficulties of others’ professions, $b = -.106, t(444) = -2.24, p = .025$. Additionally, the scale exploring perceived lack of control predicts nurses comparing themselves against uncaring physicians, $b = .096, t(444) = 2.04, p = .042$, and negatively predicts comparisons of their profession to the difficulties of others’ professions, $b = -.204, t(444) = -4.39, p < .001$. In other words, the more nurses perceive having low job-related control, the more likely they are to bolster identity by believing they are not as uncaring as physicians and thus feel better about being a nurse. However, the more nurses perceive having low job-related control, the less likely they are to feel thankful they are a nurse compared to other professions. Both the learned helplessness and perceived lack of control scales are unrelated to nurses differentiating themselves from the field of medicine, $p$’s $> .05$. 
CHAPTER 5

DISCUSSION

In this final chapter, a summary of the results of this study are presented, followed by a presentation of strengths, limitations, and directions for future research. After these sections, lessons learned in the process of writing this dissertation are discussed. This chapter will end with a discussion of the implications of the findings of this study for communication theory, health communication, hospital administrators, the nursing profession, and patients.

Summary of Findings

The main goal of this dissertation was to examine relationships between nurse identity, interaction involvement, willingness to confront conflict, learned helplessness, and tenure intentions. Rooted in social identity theory, nurse identity was conceptualized as being a multi-dimensional construct comprised of small group/unit/floor identity, role identity, and professional identity. A cross-sectional survey was distributed to nurses at Cleveland Clinic and completed online via Qualtrics by 446 participants. The model proposed in Chapter 2 connected the five primary variables in this dissertation and SEM was employed to examine direct and indirect relationships between these variables. After relatively minor adjustments made to the
measurement model, a final model was created and links the variables in question quite well.

The measurement model proposed both direct and indirect relationships. The observed variables included willingness to confront conflict and interaction involvement and the latent (unobserved) variables include nurse identity, learned helplessness, and tenure intentions. Dimension reduction analyses encouraged the division of learned helplessness into two observed variables (made with scales), which included perceived lack of control and perceived learned helplessness. The measurement model encouraged the addition of a path from the small group/unit/floor tenure intentions error term to the small group/unit/floor small group identity error term to strengthen overall fit. The hypothesized paths from both interaction involvement and willingness to confront conflict to tenure intentions were dropped as they were nonsignificant.

Holistically, the final model provides important insights into our understanding of conflict and tenure issues inside the nursing profession and while these issues are not new to the nursing profession, the mechanisms explored here are innovative. Both direct and indirect relationships were found between the variables in question and SEM demonstrated a useful data analysis method for discovering such mechanisms. Findings in this study contribute to social identity theory literature and nursing, and communication research.

To begin, the results demonstrate that nurse identity is positively associated with nurses’ perceptions of their interaction involvement, their willingness to confront small group/unit/floor conflict, and tenure intentions. Nurse identity predicting interaction involvement, a cognitive evaluation of communication competence (Cegala, 1981), is a
new finding. Nurses who take pride in and possess a shared identity with their small
group/unit/floor, role, and profession, are those who are more attentive, perceptive, and
responsive in their communication with other members of their small group/unit/floor
environment. These nurses communicatively enact their nursing role and as they do so
(Apker et al., 2005), they likely bolster their identity as a member of the nursing
community at various levels.

In line with Packers’ normative conflict model of dissent (Packer, 2008; Packer &
Chasteen, 2010), nurses who more highly identify with their group are more likely to
speak out against negative conflict norms in their environment. Likewise, interaction
involvement is the mechanism through which nurse identity relates to willingness to
confront conflict. Nurses who perceive themselves as interactionally-involved
communicators are those who are more motivated to confront conflict and feel a
decreased sense of learned helplessness (i.e., “being in between a rock and hard place”).
In other words, a nurse who is responsive, perceptive, and attentive to nurses around
himself/herself is more likely to want confront negative conflict norms and combat
subsequent learned helplessness.

Prior literature also supports feelings of group attachment and identification relate
to staying intentions (Haslam, 2004; O’Reilly & Chatman, 1986) and such findings, both
through direct and indirect paths, were reinforced by this research. Moreover, learned
helplessness directly decreases tenure intentions—a finding nursing professionals,
managers, and hospital administrators should heed. As mentioned, interaction
involvement predicts willingness to confront conflict, but does not predict tenure
intentions. Stated differently, a nurses’ perceptive, receptive, and attentive
communication inside their small group/unit/floor is not enough to keep them fully committed to remaining a part of this small group/unit/floor, their role, or the nursing profession.

Interestingly, the latent variable nurse identity does not directly attenuate learned helplessness (this hypothesized relationship was marginally significant at $p < .10$). In other words, nurses’ personal feelings of attachment to and pride in their small group/unit/floor, role, or profession does not necessarily enable nurses to fend off feelings of continued frustration and an inability to make environmental changes. However, through interaction involvement and willingness to confront conflict, nurse identity does attenuate feelings of learned helplessness. This is an important addition to the social identity literature and clearly demonstrates the importance of interpersonal communication in mediating feelings of frustration or lack of control.

A number of other key indirect effects were discovered in the SEM model, as well. To begin, interaction involvement mediates the relationship between nurse identity and willingness to confront conflict. The discovery of this indirect effect is not surprising given nurse identity directly predicts willingness to confront conflict. Also, interaction involvement does not directly predict nurses’ tenure intentions; however, interaction involvement is indirectly related to tenure intentions via willingness to confront conflict and learned helplessness. Nurses who rate themselves as higher in interaction involvement are more willing to confront conflict and are consequently less likely to experience learned helplessness. Importantly, willingness to confront conflict and learned helplessness are the mechanisms driving the positive relationship between interaction involvement and tenure intentions.
Along with the hypotheses which led to the formation of the SEM model, two research questions required exploration of nurse identity and demographic correlates and identity bolstering as it relates to nurses experiencing learned helplessness. To begin, older nurses are less identified with their nurse small group/unit/floor. This is disconcerting considering more senior nurses do and are needed to mentor newer nurses and assist them in acclimating to their new and difficult working environment. Nurses paid salary, compared to hourly, more highly identify with their nursing role and those with more education (i.e., possessing a master’s degree or above)—traditionally those paid salary—are more highly identified with their nursing role. This finding is both beneficial and harmful to the nursing profession as a whole: on the one hand, nurses who are more highly identified with and dedicated to performing the functions their roles required are those who already have very specified education, training, and job titles, or roles. On the other hand, nursing roles are quite hierarchical (e.g., the traditional staff RN compared to the specialized nurse anesthetist) and such role identification likely leads to intergroup division and conflict. Future research should further examine how more staff-level nurses, those which are generally paid hourly, can gain more of a sense of identification with their specific role, as it is one that is no less important than the nurse practitioner’s or nurse anesthetist.

Also explored in the current study was whether or not nurses experiencing learned helplessness would employ cognitive identity bolstering strategies. Nurses in this study experienced some feelings of learned helplessness, but most troubling nurses in this sample believe they have little job-related control. Social identity theory posits individuals will reevaluate their group status when a perceived identity threat, such as
perceived low job-related control, occurs. In the face of identity threats, individuals often reevaluate their group’s identity dimensions per components of the outgroup’s identity dimensions (Mummendy et al., 1999). Results found in the current study demonstrate nurses experiencing learned helplessness and perceiving a lack of control in their environment are more likely to bolster identity by positively comparing themselves against uncaring physicians. However, nurses feeling thankful for their status as a nurse in comparison to members of other professions positively bolster their identity and this lessens their perceptions of lost control on the job and learned helplessness.

Strengths and Limitations and Directions for Future Research

A number of strengths and limitations to the current study are worth noting. To begin, all nurses at Cleveland Clinic were invited to participate in this study and thus, this survey data represents a census. As noted by Weisberg (2005), nonresponse and nonresponse bias may not be the same thing. In other words, just because individual members of the census do not respond to the survey, this does not mean these nonrespondents differ systematically from those who did respond. In future studies, researchers may desire to seek a representative, random sample of nurses from the population at-large; however, the census survey examined here demonstrated a reasonable solution.

However, the non-representative nature of this study should not at all detract from the sample size ($n = 446$) obtained and the diverse demographic characteristics of the nurses who participated in this study. As mentioned, nurse participants in this study were allowed (unless they forwarded the invite to an external email account) to complete the study at their place of employment. Thus, the number of completed cases examined in
this study is noteworthy and no doubt provided statistical power to the model. The sample size of this study compares favorably to similar survey studies focused on nurse communication ($n = 330$, Grube et al., 2010; $n = 57$, Mahon & Nicotera, 2011; $n = 159$, Wanzer, Wojtaszczyk, & Kelly, 2009, 2009)

The descriptive and inferential statistics in this study are by no means representative of the nursing profession as a whole; however these statistics compare favorably to those of the national registered nurse population, which is a study strength. For instance, the most recent Findings from the 2008 National Sample Survey of Registered Nurses (NSSRN) produced by the U.S. Department of Health and Human Services Health Resources and Services Administration (2010) show 66.3% of employed RNs are staff nurses. The percentage of staff nurses in this study (67.5%) compares well to the NSSRN’s findings. Nurses in this study are slightly younger (mean age = 42.73 years) than those in the national survey (mean age = 46 years). Slightly over eight percent of the respondents to this survey are male and this is figure is also relatively close to the seven percent discovered in the national survey. Data in this survey come from a census of one specific hospital, yet the demographic composition here is similar to national statistics.

Also related to data collection, a weakness of this study is the unknown population size. Due to organizational constraints, an email listserv of nurses employed at this hospital system was not made available to the nurse research collaborator at the hospital nor to the author of this dissertation. As aforementioned, it is possible nurses and/or nurse managers may have forwarded the email survey invitations to other nurses at regional hospitals inside the main hospital system. Although, the first question served to
eliminate noise in the data, as 32 individuals responded they were “not a nurse” and were disqualified from the study. A participation rate (AAPOR, 2011) was calculated for this study and approximately 18% of the nursing population responded to the survey and nearly 61% of this number completed the survey (by doing at least 80% of the survey). Despite not having an exact population figure, the participation and completed participation rate are significant.

The number of cases dropped from the final dataset examined here is also a limitation. Once ineligibles ($n = 32$) were dropped, 39.24% of cases were excluded from the final dataset. However, the most significant number of cases dropped occurred when considering the nurse identity items, as 130 cases were dropped at this point. Therefore, many of these incomplete cases were individuals perhaps curious about the study but not overly dedicated to completing the study as the nurse identity items were placed at the start of the survey. Overall, the survey itself provided nurses a means by which they could anonymously and quickly report their feelings with regard to identity, conflict, and staying intentions.

Those not completing the survey at all may have been those who were experiencing much conflict (the survey midpoint) and/or learned helplessness (toward the later third of the survey) in their environment and felt the questions were thus too intrusive. Results demonstrated a slight age difference between early- and late-responders, such that late-responders—likely representing non-responders—were, on average, older than early responders. Thus, incentives, perhaps periodically timed, may need to be provided to those nurses who are reluctant to respond (e.g., Edwards et al.,
2009) and especially reluctant to respond to queries regarding learned helplessness and conflict.

In terms of the measurement model, the variable willingness to confront conflict was included in the SEM model as a unidimensional observed variable (one item only) and this is a noted limitation. Other items (Appendix E) were employed to measure participants’ willingness to confront conflict, but these items, when placed into a scale, had low reliability. Furthermore, the items listed under “Individual Habits” in Appendix E do not measure willingness to confront conflict, but what how individuals (mis)manage conflict in the workplace. Future studies should measure individuals’ willingness to manage conflict in a more multidimensional fashion. The addition of individual conflict management measures may also provide more nuanced mechanisms even inside the model examined in this study.

In spite of this measurement flaw, the methods employed here are quite sophisticated. Hot deck data imputation, for instance, is both sophisticated and up-to-date and managed the data in this study quite well. Furthermore, SEM allowed for the simultaneous evaluation of indirect and direct effects in a more process-oriented model. Instead of just using multiple regression, the use of SEM here permitted mediation analyses which considered one or more mediating variables. However, in some sense, the model may have been over-fitted to the data, as two nonsignificant paths were dropped and a covariance was added to the model (Barrett, 2007; Kline, 2011). Further tests of the final model, and even perhaps the original measurement model, are needed.

In addition, studies need conducted to examine specifically why interaction involvement does not directly relate to staying intentions. Just because a nurse is
interactionally-involved in his/her small group/unit/floor, it does not mean that he/she does not experience conflict and job frustration. Scholars interested in other professions known to have strong professional ethos and/or occupational identity (e.g., firefighters [Thurnell-Reed & Parker, 2009], urban police officers [Loftus, 2010; Van Maanen, 2010], primary school teachers [Troman, 2008]) may find testing the model presented here helpful in uncovering evidence of learned helplessness and how willing individuals are to manage organizational conflict.

Finally, the relationships proposed here are likely bidirectional. This detail should not be considered a weakness, per say, but does point to the need for a more thorough analysis of these variables. For example, time 2 and time 3 analyses would likely identify dynamic relationships (e.g., Slater, 2007; Thelen & Smith, 1994) between nurse identity, interaction involvement, willingness to confront conflict, learned helplessness, and tenure intentions. As such, the relationships suggested would become bidirectional and feed back into one another. Thus, positive tenure intentions may lead to a decrease in learned helplessness, an increase in conflict confrontation willingness and interaction involvement, and subsequently nurse identity.

Along with identifying dynamic relationships, similar studies should be conducted at various hospital locations to examine how diverse hospital organizational characteristics and functions mediate or moderate variable links. Furthermore, hospitals are only one of many employment organizations open to nurses. Future research should examine whether or not the features of the model discovered here exist in other healthcare organizations, such as public health, private practice, etc. Once this model has been tested longitudinally and in various healthcare contexts, additional variables, such as
perhaps perceived physician interaction involvement and patient relationship factors, can be added to the model. The future of this research and its applied implications are bright.

Lessons Learned

In this section, I reflect on lessons learned throughout conducting this research project. To begin, I am honored and privileged to work with such a fine sponsoring hospital, the Cleveland Clinic. I have learned greatly from Dr. Nancy Albert and now feel I can speak the language of nursing professionals just a bit better. Likewise, I am becoming more and more familiar with the inner workings of hospital systems from the Institutional Review Board to nurse manager meetings and reports.

This applied work was incredibly difficulty, but I am proud of my endeavors and desire to stand among my health and organizational communication research colleagues who examine “real-life” phenomenon. I desire to continue this work and develop relationships with other hospitals and healthcare organizations. My reasons for doing this work remain and are now further bolstered. To begin, the bridge between communication research and theory development and nursing science exists but needs strengthened and enlarged. Secondly, nurse-nurse conflict is bothersome at many levels and it is tragic for me to hear from nurse colleagues, “I like my work, but hate my job.” Indeed, there are many reasons a nurse may not like his/her job, but learned helplessness due to continued poor interactions with colleagues should not be one of them. Many stories from friends, family, and nurse colleagues echo findings discovered in the statistical model explored here. Finally, and most significantly, nurses are a vital part of the healthcare system, without whom public health and welfare initiatives at all levels
would fail and more research time and money should be devoted to this special and
diverse population.

Finally, I enjoy survey research and hopefully this is evident in this project. Through my doctoral candidacy exams and the urgings of Dr. Jerry Kosicki, survey error
theory and methodology has become much clearer and helpful to me. I further appreciate
the delicate balance between survey “costs” (albeit time, money, participation rates, and
so on) and quality responses. Deciding on measures for this survey proved troublesome
and I need to continue to develop skills in conceptualizing and measuring variables given
confines of survey space and participant time. Nevertheless, I plan to continue this line
of research and am already developing related projects with communication and nursing
researchers.

Implications and Conclusion

Nursing constitutes the largest healthcare occupation and this profession will
continue to grow given current and predicted healthcare conditions in the U.S (BLS,
2009). Due to patients, physicians, administrators, and other stakeholders relying on
nurses for their skill and expertise, nurses experience conflict and this may result in
cycles of learned helplessness. The model proposed in this dissertation examined
relationships between nurse identity, how willing nurses are to confront conflict, learned
helplessness, and whether or not these variables relate to nurses’ tenure intentions.
Results demonstrate nurse identity, conceptualized at three levels (professional, role, and
unit/floor/small group) relates to each of the variables discussed in this model either
directly or indirectly. Nurses highly identified with their profession, role, and
unit/floor/small group may desire to stay with theses respective groups and are those
most willing to counteract negative group norms and feel less of a sense of helplessness on the job.

Thus, this dissertation contributes to a small body of literature examining identity antecedents to communication phenomenon inside the nursing profession. Theoretical extensions include indirect links between nurse identity and learned helplessness via interaction involvement and willingness to confront conflict and interaction involvement and tenure predictions as mediated by willingness to confront conflict and learned helplessness. These links inform social identity theory specifically as feelings of learned helplessness detract from identification with the group. Weakened identity, as demonstrated by an indirect path to tenure intentions in this study, leads to individuals desiring to leave the group. Conversely, nurses who feel present in their communication with other nurses desire to stay a part of their groups for longer period of time when they are willing to confront conflict and feel less learned helplessness. Summatively, nurses exiting their group—particularly at the small group/unit/floor level—is costly to hospitals and ultimately patients. Social identity theory predicts those who feel their identity is threatened and/or no longer enhanced by the group will exit the group.

Findings in this study (e.g., those related to Packer’s [2008; Packer & Chasteen, 2010] normative conflict model of dissent) also echo prior work conducted by scholars interested in social identity occurrences in organizational arenas. Importantly, this is the first study of its kind to examine nurses’ perception of interaction involvement, as originally conceptualized by Cegala (1981) and colleagues (1982), in nursing small group contexts. Ultimately, the purpose of this study and subsequent creation of the SEM model
are to not only understand the relationships between these variables, but to ultimately facilitate more quality patient care.

In terms of implications for the nursing profession, first, understanding nurses’ identification at various social levels will enable creation of further socialization, education, and training programs for nurses entering the profession. Likewise, research demonstrates different pathways for developing positive work-related identity and the research proposed here is a stepping stone to further discovering and clarifying those identity dimensions which facilitate nurses in their complex roles (Dutton, Roberts, & Bednar, 2009; Dutton, Roberts, & Bednar, 2010). Once negative norms, which are antecedents to feelings of learned helplessness, are identified in this context, interventions can then be developed. In addition, interventions emphasizing the development of nursing communication norms which promote higher levels of interaction-involvement should serve to better reinforce positive nurse identity and facilitate better patient outcomes. Finally, it seems even the smallest reduction in learned helplessness and negative conflict behaviors should lead to increased tenure-length intentions, turnover reduction, and subsequently improved patient experiences.

In conclusion, positive workplace identity is important to the functioning of the individual and work groups (Ashforth & Mael, 1989; Hogg & Terry, 2000; van Knippenberg & van Schie, 2000) and nurses experience not only organizational or small group-type identity, but professional and role-related identities, as well. Despite the field’s strong sense of values (Mueller, Valsecchi, Smith, Gabe, & Elston, 2008; Weis & Schank, 2009), ethics, and dedication to patients, conflict is quite prevalent in the nursing context and as recent scholarship reports, so are facets of learned helplessness (Nicotera
& Clinkscales, 2010; Nicotera et al., 2010). Hopefully the field of nursing will benefit from a uniquely communication and identity approach to understanding and predicting nurse behavior—behavior critical to the health and wellbeing of patients.
REFERENCES


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Hopkins University Press.


and intent to leave current position and/or profession. *Journal of Nursing Management, 17*, 383-391.
Appendix A: Study Flyer Distributed at Nurse Managers’ Meeting
Announcing a Research Study for Cleveland Clinic’s World-Class Nurses.

What does it mean to be a nurse? How do nurses communicate with one another? Your input in this research study can help us find out!

*The survey can be completed online anytime at https://osucomms.qualtrics.com/SE/?SID=SV_6FlyXKJVrzIH0NK

OR

*Pick up a survey packet in the nearest nurses’ lounge & return it to mail code J3-4.

*Look for an email providing a link to the survey in your inbox.

Thank you!

For information regarding this study please contact Jennifer Moreland, Doctoral Candidate at The Ohio State University, at (440) 396-8484 or moreland.68@osu.edu; or Nancy Albert, Nursing Research and Innovation at (216) 444-7028 or albertn@ccf.org.
Appendix B: First Recruitment Email Sent
Dear Registered and Licensed Practical Nurses,

We request your participation in a research study, titled: Nurse Identity and Communication. The study uses an anonymous survey to obtain answers to our research questions. The survey is online through a company called Qualtrics; it will take less than 20 minutes to complete. Your participation will be completely anonymous and is very much appreciated. All results will be reported at the aggregate level.

Please click on or paste this Web-like into your Web browser:
https://osucomms.qualtrics.com/SE/?SID=SV_6FlyXKJVrzlH0NK

If you have questions about this research project you may contact Jennifer Moreland at (440) 396-8484 or moreland.68@osu.edu, Nancy Albert at (216) 444-7028 or albertn@ccf.org, or David Ewoldsen at (614) 247-5446 or ewoldsen.1@osu.edu. If you have questions about your rights as a research participant, please call The Ohio State University’s Office of Responsible Research Practices at (614) 688-4792. You can also contact the Institutional Review Board here at Cleveland Clinic at (216) 444-2924. On the first page of the survey you will find information regarding your rights as participants, please read the information before deciding to take the survey.

If you would like to complete a paper version of this survey, a paper copy can be sent to you. Please contact one of the researchers listed below should you desire a survey sent to you.

If you are not an RN or LPN, please kindly disregard this email.

Thank you for your time!

Jennifer Moreland, M.A.
Doctoral Candidate
The Ohio State University
(440) 396-8484

Nancy Albert, Ph.D., CCNS, CCRN
Nursing Research and Innovation
Cleveland Clinic
ext. 4-7028

David Ewoldsen, Ph.D.
Professor of Communication
The Ohio State University
(614) 247-5446
Appendix C: Second Recruitment Email/Reminder Sent
Dear Registered and Licensed Practical Nurses,

We request your participation in a research study, titled: Nurse Identity and Communication. The study uses an anonymous survey to obtain answers to our research questions. The survey is online through a company called Qualtrics; it will take less than 20 minutes to complete. Your participation will be completely anonymous and is very much appreciated. All results will be reported at the aggregate level.

Please click on or paste this Web-like into your Web browser: https://osucomms.qualtrics.com/SE/?SID=SV_6FlyXKJVrzh0NK

If you have questions about this research project you may contact Jennifer Moreland at (440) 396-8484 or moreland.68@osu.edu, Nancy Albert at (216) 444-7028 or albertn@ccf.org, or David Ewoldsen at (614) 247-5446 or ewoldsen.1@osu.edu. If you have questions about your rights as a research participant, please call The Ohio State University’s Office of Responsible Research Practices at (614) 688-4792. You can also contact the Institutional Review Board here at Cleveland Clinic at (216) 444-2924. On the first page of the survey you will find information regarding your rights as participants, please read the information before deciding to take the survey.

If you would like to complete a paper version of this survey, a paper copy can be sent to you. Please contact one of the researchers listed below should you desire a survey sent to you.

If you are not an RN or LPN, please kindly disregard this email.

Thank you for your time!

Jennifer Moreland, M.A.
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Cleveland Clinic
ext. 4-7028

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Appendix D: Letter to Participants Regarding their Rights/First Page of the Survey

Nurse Identity & Communication Study

Dear Nurse,

Once you have read and voluntarily agree to the following information, please click to the next page to start the study.

Thank you!

Background Information
As a registered or licensed practical nurse on any floor or in any unit, you are being asked to participate in this survey research to help us learn more about how nurses view their identity as a nurse, and how nurses communicate with one another. Nurses (18 years of age or older) at Cleveland Clinic are eligible to participate in this research. This information sheet tells you about this research study, the risks/benefits, and its confidential and voluntary nature. Please read this information sheet before agreeing to complete the attached survey. If you have any questions about this research project or if you feel you have been harmed as a result of study participation, you can contact the principal investigators, Jennifer J. Moreland, MA at (440) XXX-XXX (moreland.68@osu.edu), David Ewoldsen, PhD, at (614) XXX-XXX, both at The Ohio State University, or Nancy M. Albert PhD, RN, at the Nursing Institute at Cleveland Clinic, at ext. 4-XXXX. If you have questions regarding your rights as a research subject, you should contact the Institutional Review Board here at Cleveland Clinic at (216) 444-2924 or the Office of Responsible Research Practices at The Ohio State University at (614) 688-8457. You can also contact the Cleveland Clinic Institutional Review Board or the Office of Responsible Research Practices if you have concerns or complaints about the research, if you cannot reach an investigator, or you wish to talk to someone other than the research team.

Purpose
The purpose of this research study is to explore how nurses view themselves and their communication practices. We wish to know how you feel about your role as a nurse and how you communicate with other nurses on a day-to-day basis. Understanding how nurses communicate with one another will further enhance understanding of nurses’ job commitment and satisfaction. There are no right and wrong answers. There are 86 survey items. Questions about you (nurse characteristics) are broadly worded so that you will maintain anonymity. Our goal is to have 300+ nurses participate. No identifying information will be asked of you. The survey uses check-box format responses from “strongly-agree” to “strongly-disagree” or other similar-type statements. This survey will take about 20 minutes to complete.

Risks of being in the study
This study has minimal risks; the greatest risk is fatigue from completing the survey packet. The survey packet is anonymous and strictly confidential. Survey packet data will be sent to Ohio State University for analysis and drawing implications. Only group data will be presented. Each survey in the packet is short, which will limit survey fatigue. Although every effort to protect
confidentiality will be made, no guarantee of internet survey security can be given as, although unlikely, transmissions can be intercepted and IP addresses can be identified.

**Benefits to being in the study**
You will experience no direct benefit from participating in this survey research. However, knowledge gained may assist us in developing programs to help new nurses acclimate to the nursing environment and overcome environmental communication difficulties.

**Voluntary nature of the study**
Your participation in this research study is voluntary. Refusing to participate will not affect your employment or your performance evaluation. The study involves data collection at 1 point in time. You may decide stop completing the online survey, and withdraw for any reason. After reading this page you can (1) voluntarily agree to complete the survey or (2) decide to not complete the survey. Completion of the survey will indicate your willingness to participate in the research and have your responses sent to The Ohio State University for analysis.

You are welcome to print a copy of this page for your records.

Thank you.

**Jennifer Moreland, M.A.**  
Doctoral Candidate  
The Ohio State University

**Nancy Albert, Ph.D., CCNS, CCRN, CNA**  
Director of Nursing Research and Innovation  
Cleveland Clinic

**David Ewoldsen, Ph.D.**  
Professor of Communication  
The Ohio State University
Appendix E: Final Survey Items

Nurse Identity Measures

The following items ask you to consider yourself as a nurse working within a small group, such as a work team, unit, or floor, and as a professional nurse. Please indicate how much you agree or disagree with each statement.

Nurse Small Group Identity

Nurse Small Group Identity (Luhtanen & Crocker, 1992)*
1. Overall, my being part of this unit/floor/small group has little to do with how I feel about myself. (R)\(^a\) (factor loading = .72)
2. The unit/floor/small group I belong to is an important reflection of who I am. (factor loading = .74)
3. The unit/floor/small group I belong to is unimportant to my sense of what kind of nurse I am. (factor loading = .77)
4. In general, belonging to this unit/floor/small group is an important part of my self-image. (factor loading = .75)

Nurse Small Group Identity, Continued (Phinney, 1992)^
1. I feel an attachment to this unit/floor/small group.
2. I have a strong sense of belonging to this unit/floor/small group.\(^a\)
3. I take pride in the nursing functions performed by nurses the nurses on this unit/floor/small group.\(^a\)

Nurse Role Identity

1. Please record the type of nurse you are (i.e., nurse administrator, nurse manager, staff nurse, or other).
2. Overall, my being a ___(type of nurse)_____ has little to do with how I feel about myself (Luhtanen & Crocker, 1992). *
3. My role as ___(type of nurse)_____ is a reflection of who I am (Luhtanen & Crocker, 1992). *

Nurse Professional Identity

1. My education affects who I am as a nurse.
2. Overall, my being a nurse has little to do with how I feel about myself.
3. I feel an attachment toward the nursing profession (Phinney, 1992).^
4. The nursing profession is a reflection of who I am (Luhtanen & Crocker, 1992). *
5. A nurse’s overall purpose is to aid patients.
6. I feel the organizational structure around me encourages my development as a nurse.
7. I feel the organizational structure around me hinders the process of becoming the nurse I want to be.
8. My patients affect who I am as a nurse. (Nurses who do not regularly work with patients will be able to respond, as such).

Nurse Identity Bolstering Strategies

1. When I see how uncaring most physicians are, I feel better about being a nurse.#
2. When I see how hard others have it in different professions, I feel thankful I’m a nurse.#
3. My role as a nurse differentiates me from the field of medicine.

* In three studies, Luhtanen and Crocker (1992) found the standardized reliability alphas for this Identity subscale to be .77, .74, and 86.
^ These items are derived from Phinney’s (1992) Ethnic Identity Scale. The entire scale (containing two factors) consists of 20 items and is thus too long to use in its entirety. Thus, these items were selected as they appear to be relatively similar.
# Fagerburg, 2001
Raman, 2008
Interaction Involvement

This portion of the survey is designed to provide information about how nurses regularly communicate with other nurses around them. Please respond to each item in a way that best describes your typical manner of communication with nurses on/in your unit/floor/small group on a scale from “Not at all like me” to “Very much like me.”

1. My mind wanders during conversations with nurses on my unit/floor and I often miss parts of what is going on. (R)
2. Often in conversations with nurses on my unit/floor I will pretend to be listening, when in fact I was thinking of something else. (R)
3. Often I’m preoccupied in conversations with nurses on my unit/floor and do not pay complete attention to others. (R)
4. Sometimes during conversations I’m not sure what the other nurse on my unit/floor really means or intends by certain comments. (R)
5. I am keenly aware of how nurses on my unit/floor perceive me during my conversations with them. (R)
6. In my conversations I often do not accurately perceive others unit/floor nurses’ intentions or motivations. (R)
7. Often in conversations I’m not sure what the needs of the nurses of my unit/floor are (e.g., a compliment, reassurance, etc.) until it is too late to respond appropriately. (R)
8. Often during conversations with nurses on my unit/floor I feel like I know what should be said (like accepting a compliment, or asking a question), but I hesitate to do so. (R)
9. Often in conversations with nurses on my unit/floor, I’m not sure what my role is, I’m not sure how I’m expected to relate to others. (R)

Perceptiveness items (a total of four items are in the scale). Perceptiveness subscale reliability alphas range from .63 (Rubin & Graham, 1988) to .88 (Cegala, 1981).

Attentiveness items (a total of six items are in the scale). Attentiveness subscale reliability alphas range from .64 (Duran & Kelly, 1988) to .87 (Cegala, 1981).

Responsiveness items (a total of eight items are in the scale). Responsiveness subscale reliability alphas range from .83 (Chen, 1989) to .90 (Cegala, 1981; Cegala, Savage, Brunner, & Conrad, 1982).

(R) denotes reverse-coded
Willingness to Confront Conflict Measures

The following items ask you to consider yourself as a nurse working within a small group, such as a work team, unit, or floor, and as a professional nurse. Please indicate how much you agree or disagree with each statement.

Unit/Floor Habits (Jehn’s [1995] Conflict Norms subscale)*:
1. Conflict is dealt with openly in/on my unit/floor/small group.
2. Nurses on my work in/on my unit/floor/small group try to avoid conflict at all costs.
3. Differences of opinions about job responsibilities between nurses are avoided in my unit/floor/small group.

Individual Habits (Packer & Chasteen, 2010)^:
1. I deal with conflict in my workplace.
2. When you have disagreed (for any reason) with the nurses on your unit/floor/small group, how often have you expressed your disagreement to them?
3. I am motivated to confront conflict when it occurs on my unit/floor/small group.
4. When I express disagreement with issues on my floor/unit/small group, it is often to help the group (Packer & Chasteen, 2010)
5. When I express disagreement with this group, I am usually looking out for my own interests.

Conflict Resolution (Jehn, 1995)^:
1. Disagreements about the specific work being done are usually resolved in my work unit.
2. Emotional conflicts are usually resolved in my work unit.
3. Disagreements about who should do what are usually resolved in my work unit.

* These items comprise the Conflict Norms subscale in Jehn’s battery of items exploring intragroup conflict, goals, etc. The alpha reliability for this portion of the scale is .74.
^ No reliability for these measures was provided.
& These items comprise the Conflict Resolution subscale in Jehn’s battery of items exploring intragroup conflict, goals, etc. The alpha reliability for this portion of the scale is .84.
Learned Helplessness Measures

The following items ask you to consider yourself as a nurse working within a small group, such as a work team, unit, or floor, and as a professional nurse. Please indicate how much you agree or disagree with each statement below by marking one X in one box per line.

STRUCTURAL DIVERGENCE (Nicotera et al., 2010)
1. I am darned if I do, darned if I don’t.
2. I feel like I am “between a rock and a hard place.”
3. I feel obligated to fulfill opposing demands at the same time.

1. I sometimes feel helpless to change the negative things that occur on this unit/floor.

The following items ask you to consider yourself as a nurse working within a small group, such as a work team, unit, or floor, and as a professional nurse. Please answer on a scale from “Always” to “never” (7 point scale)

PERCEIVED WORKPLACE CONTROL (Ashforth, 1989)
When you think back over the last month, did you have as much:
   a) Direct control over the methods and procedures for doing your work as you thought you would have?
   b) Influence as you thought you would have over decisions that directly affect your job?
   c) Thinking back over the last month at work, how often would you say you felt frustrated?

^Nicotera and colleagues (2010) scale consists of three dimensions and this dimension relates to the, “immobilization and the individual’s inability to accomplish professional/organizational goals” (p. 375). The alpha reliability for this portion of the scale is .90.
*Ashforth (1989) did not report reliabilities for these items.
Tenure Intentions and Organizational Commitment Measures

Tenure Intentions
1. I see myself working with this unit/floor/small group for ______ years.
2. I see myself working as __(type of nurse)_____________for _______ years.
3. I see myself working as a nurse at this location (that is, in this hospital, doctors’ office, etc.) for ______ years.

The following items ask you to consider your commitment to the nursing profession. Please indicate how much you agree or disagree with each statement below.

Organizational Commitment (Meyer, Allen, & Smith, 1993)
Affective Commitment Scale (reliabilities range from .74 to .89)\(^a\)
1. I would be very happy to spend the rest of my career with this organization.
2. I would be very happy to spend the rest of my career as a nurse.
3. I would be very happy to be a ___(insert type of nurse)____________ for the rest of my career.
4. I really feel as if the problems in/on this unit/floor/small group are my own.
5. I do not feel a strong sense of "belonging" to this unit/floor/small group. (R)
6. I do not feel "emotionally attached" to this unit/floor/small group. (R)
7. I do not feel like "part of the family" in this unit/floor/small group. (R)

Continuance Commitment Scale (reliabilities range from .69 to .84)
1. It would be very hard for me to leave this unit/floor/small group right now, even if I wanted to.
2. If I had not already put so much of myself into this unit/floor/small group, I might consider working elsewhere.
3. One of the few negative consequences of leaving this unit/floor/small group would be the scarcity of available alternatives.

Normative Commitment Scale (reliabilities range from .69 to .79)
1. I would feel guilty if I left this unit/floor/small group now.
2. This unit/floor/small group deserves my loyalty.
3. I would not leave this unit/floor/small group right now because I have a sense of obligation to the people in it.

\(^a\)Reliabilities were discovered in the following studies: Allen & Meyer, 1990; Allen & Smith, 1987; Bobocel et al., 1988; McGee & Ford, 1987; Meyer & Allen, 1984, 1986; Meyer et al., 1989; Meyer et al., 2002; Withey, 1988.
Demographics

Please provide the following demographic information.

1. Please record the number of years you have practiced as a nurse, overall.
2. Please record the number of years employed in your current (and primary) unit/floor/small group.
3. Number of years you have performed as a (specified role).
4. Estimate the number of nurses on their floor/unit or nursing small group with whom you work on a regular basis (i.e., typical shift, average day, etc.).
5. Please provide your age at your last birthday (in whole-number years).
6. Please select your gender.
7. Please select your primary race.
8. Do you consider yourself Latino or Hispanic? Y/N
### Appendix F: Descriptive Statistics for All Scale Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am an LPN/RN</td>
<td>446</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall, my being a part of this unit/floor/small group has very little to do with how I feel about myself.</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>4.62</td>
<td>1.69</td>
</tr>
<tr>
<td>The unit/floor/small group I belong to is unimportant to my sense of what kind of nurse I am.*</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>4.85</td>
<td>1.79</td>
</tr>
<tr>
<td>In general, belonging to this unit/floor/small group is an important part of my self-image.</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>4.93</td>
<td>1.54</td>
</tr>
<tr>
<td>I feel an attachment to this unit/floor/small group.</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>5.79</td>
<td>1.28</td>
</tr>
<tr>
<td>I take pride in the nursing functions performed by the nurses on this unit/floor/small group.</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>6.15</td>
<td>0.95</td>
</tr>
<tr>
<td>I have a strong sense of belonging to this unit/floor/small group.</td>
<td>446</td>
<td>1</td>
<td>7</td>
<td>5.62</td>
<td>1.35</td>
</tr>
<tr>
<td>This unit/floor/small group is an important reflection of who I am.</td>
<td>445</td>
<td>1</td>
<td>7</td>
<td>4.98</td>
<td>1.55</td>
</tr>
</tbody>
</table>
My education affects who I am as a nurse.

Overall, my being a nurse has little to do with how I feel about myself.*

I feel an attachment toward nursing profession.

The nursing profession is a reflection of who I am.

My role as a nurse differentiates me from the field of medicine.

A nurse's overall purpose is to aid patients.

I feel the organizational structure around me encourages my development as a nurse.

I feel the organizational structure around me hinders the process of becoming the nurse I want to be.

When I see how uncaring most physicians are, I feel better about being a nurse.

When I see how hard others have it in different professions, I feel thankful I’m a nurse.

My patients affect who I am as a nurse.

Overall, my being a(n) {nurse role} has little to do with how I feel about myself.*

My role as a(n) {nurse role} is a reflection of who I am.
My mind wanders during conversations with nurses in/on my unit/floor/small group and I often miss parts of what is going on.*

Often in conversations with nurses in/on my unit/floor/small group I will pretend to be listening, when in fact I was thinking of something else.*

Often I’m preoccupied in conversations with nurses in/on my unit/floor/small group and do not pay complete attention to others.*

Sometimes during conversations I’m not sure what the other nurse in/on my unit/floor/small group really means or intends by certain comments.*

I am keenly aware of how nurses in/on my unit/floor/small group perceive me during my conversations with them.

In my conversations I often do not accurately perceive other unit/floor/small group nurses’ intentions or motivations.*

Often in conversations I’m not sure what the needs of the nurses of my unit/floor/small group are (e.g., compliment, reassurance, etc.) until it is too late to respond appropriately.

Often during conversations with nurses in/on my unit/floor/small group I feel like I know what should be said (like accepting a compliment, or asking a question), but hesitate to do so.
- Often in conversations with nurses in/on my unit/floor/small group, I'm not sure what my role is, I'm not sure how I'm expected to relate to others.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.02</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Conflict is dealt with openly in/on my unit/floor/small group.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.63</td>
<td>1.57</td>
</tr>
</tbody>
</table>

Nurses who work in/on my unit/floor/small group try to avoid conflict at all costs.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.20</td>
<td>1.39</td>
</tr>
</tbody>
</table>

Differences of opinion about job responsibilities between nurses are avoided in my unit/floor/small group.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.09</td>
<td>1.43</td>
</tr>
</tbody>
</table>

I experience conflict with the nurses with whom I work.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.42</td>
<td>0.83</td>
</tr>
</tbody>
</table>

When you have disagreed (for any reason) with the nurses on your unit/floor/small group, how often have you expressed your disagreement to them?  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.19</td>
<td>1.46</td>
</tr>
</tbody>
</table>

I am motivated to confront conflict when it occurs in/on my unit/floor/small group.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.50</td>
<td>1.60</td>
</tr>
</tbody>
</table>

When I express disagreement with issues in/on my floor/unit/small group, it is often to help the group.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.63</td>
<td>1.07</td>
</tr>
</tbody>
</table>

When I express disagreement with my unit/floor/small group, I am usually looking out for my own interests.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.56</td>
<td>1.30</td>
</tr>
</tbody>
</table>

I am “darned if I do, darned if I don’t.”  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.49</td>
<td>1.79</td>
</tr>
</tbody>
</table>

I feel like I am “between a rock and a hard place.”  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.39</td>
<td>1.82</td>
</tr>
</tbody>
</table>

I feel obligated to fulfill opposing demands at the same time.  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.30</td>
<td>1.59</td>
</tr>
</tbody>
</table>
I sometimes feel helpless to change the negative things that occur in/on this unit/floor/small group.

Disagreements about the specific work being done are usually resolved in/on this unit/floor/small group.

Emotional conflicts are usually resolved in/on this unit/floor/small group.

Disagreements about who should do what are usually resolved in/on my unit/floor/small group.

Thinking back over the last month, did you have as much direct control over the methods and procedures for doing your work as you thought you would have?

Thinking back over the last month, did you have as much influence as you thought you would have over decisions that directly affect your job?

Thinking back over the last month at work, how often would you say you felt frustrated?

It would be hard for me to leave this unit/floor/small group right now, even if I wanted to.

If I had not already put so much of myself into this unit/floor/small group, I might consider working elsewhere.

One of the negative consequences of leaving this unit/floor/small group would be the scarcity of available alternatives.
I would feel guilty if I left this unit/floor/small group now.  
446 1 7 4.18 1.90

This unit/floor/small group deserves my loyalty.  
446 1 7 5.04 1.62

I would not leave this unit/floor/small group right now because I have a sense of obligation to the nurses in it.  
445 1 7 4.39 1.85

I would be very happy to spend the rest of my career in/on this unit/floor/small group.  
446 1 7 4.05 1.89

I really feel as if the problems in/on this unit/floor/small group are my own.  
444 1 7 2.67 1.55

I do not feel a strong sense of "belonging" to this unit/floor/small group.  
446 1 7 5.27 1.67

I do not feel "emotionally attached" to this unit/floor/small group.  
444 1 7 5.26 1.64

I do not feel like "part of the family" in this unit/floor/small group.  
445 1 7 5.35 1.65

I would be very happy to spend the rest of my career as a nurse.  
446 1 7 5.62 1.61

I would be very happy to be a(n) {nurse role} for the rest of my career.  
446 1 7 4.27 2.12

I see myself working with this unit/floor/small group for [ ] years (filled in with a whole number).  
446 0 40 6.17 5.78

I see myself working as a(n) {nurse role} for [ ] years (filled in with a whole number).  
446 0 50 9.73 9.00

I see myself working as a nurse at this location (i.e., in this hospital, doctor’s office, etc.) for...  
446 0 60 10.73 9.61
How many years have you practiced as a nurse? (please use a whole-number)  0 51 16.34 12.87

How many years have you practiced as a nurse in your current position with this unit/floor/small group.  0 51 5.45 6.40

How many years have you practiced as a nurse at this location? (please use a whole-number)  0 41 8.96 8.61

Please estimate the number of nurses on your floor/unit/or nursing group with whom you work on a reg...  0 300 16.14 27.95

I am currently a: [nurse hierarchy: 1 = nurse administrator, 2 = nurse manager, 3 = staff nurse, 4 = advanced practice nurse, 5 = other (please specify)].  1 5

How many years have you practiced as a (insert nurse role).  0 45 10.59 10.49

Please select the highest nursing degree you have attained [1 = none, 2 = ASN, 3 = BSN, 4 = MSN-CNP, 5 = MSN-CNL, 6 = MSN-CNS, 7 = DNP, 8 = DNS, 9 = Ph.D., 10 = other (please specify), 11 = diploma].  1 11

Please select the highest non-nursing degree you have attained [1 = none, 2 = AA, 3 = AS, 4 = BA, 5 = BS, 6 = MA, 7 = MBA, 8 = MS, 9 = Ed.D., 10 = JD, 11 = Ph.D., 12 = other (please specify)].  1 12

How old were you on your last birthday? (in whole-number years)  22 73 42.73 12.08

What is your gender [1 = female, 2 = male]?  1 2
Do you consider yourself Latino or Hispanic [1 = yes, 2 = no]?

What is your primary race [nurse hierarchy: 1 = White, 2 = Black/African American, 3 = Asian, 4 = Native Hawaiian/Pacific Islander, 5 = American Indian/Alaskan Native, 6 = other (please specify)]?

Are you currently taking college course work for an advanced nursing degree [1 = yes, 2 = no]?

Are you currently taking college course work for an advanced degree unrelated to nursing [1 = yes, 2 = no]?

Please indicate whether you are a salaried or hourly employee [1 = salary (exempt), 2 = hourly (non-exempt)].

*Item recoded.