The Journey from Uncertainty to Salient Being: The Lived Experience of Nurse Residents Caring for Deteriorating Patients

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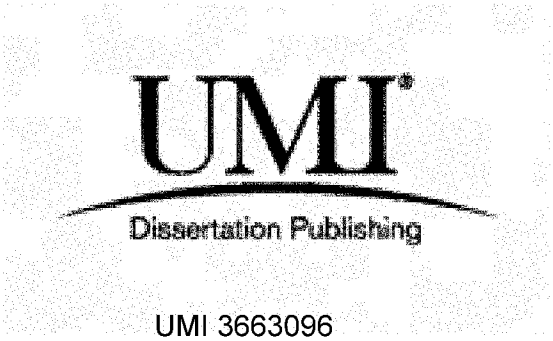

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Abstract

Nurse Residency programs have been developed to ease the transition for new graduates to the workplace, one in which they face fast-paced patient encounters such as emergency response situations. During this one year educational experience, nurse residents persistently cite caring for deteriorating patients as a clinical challenge. There is a paucity of research on the unique needs of nurse residents when encountering such challenges. Philosophically underpinning this Hermeneutic study were tenets of Heidegger and Gadamer within which nurse residents' lived experiences of caring for a deteriorating patient were explored. In-depth interviews with eight nurse residents were analyzed and interpreted using Diekelmann's process for narrative analysis. *The Journey from Uncertainty to Salient Being* described the ontological-existential meaning of participants' lived experiences of caring for a deteriorating patient during their residency year. Three distinct constitutive patterns were identified each with themes: *dwelling with uncertainty, building me up,* and *a new lifeline: salient being.* Dwelling with *uncertainty* was experienced during encounters with deteriorating patients with its deeply felt impact upon nurse residents as they transitioned from student to professional nurse. The pattern of *building me up* was influenced by the participants' expressed need for, and importance of, trusted relationships with preceptors, nurse colleagues, and/or mentors. Because of these relationships, and through reflection on their experiences, they were able to develop a sense of *salience*. To situate and explain the study's findings within existing nursing knowledge, these patterns were then compared and contrasted with nurse residency research findings, and theories and research in nursing and sociology such as transition, socialization, professional role development, and role formation. The findings from this

study extend and support role adaptation and transition theories. Implications from the study's findings can be used to improve the transition to the professional role, for preceptor development, and for refining nurse residency curricula.

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CHAPTER I

INTRODUCTION

Background of the Problem

New graduate nurses must transition into a workplace in which they face fast-paced patient encounters such as emergency response situations. High patient acuity and significant ever-changing advances in technology add to the complexity of patient care. The novice nurse entering this workplace not only lacks experience but often lacks knowledge and confidence, all of which impacts decision-making (Ebright, Urden, Patterson, & Chalko, 2004; Etheridge, 2007; Lea & Cruickshank, 2007; J. Ranse & Arbon, 2008). Decision-making in emergency response situations requires critical thinking skills. Despite these challenges, nursing must attend to the Institute of Medicine's (2003) call for standards of patient safety. This will necessitate nurse graduates' development of astute skills of patient assessment and critical thinking. Nurse educators in the academic and service arenas have long recognized the gap between new graduate nurses' critical thinking ability, comfort, confidence, skill proficiency, and the ability to provide safe competent care (del Bueno, 2005; Fink, Krugman, Casey, & Goode, 2008; Gillespie & Peterson, 2009; Newton & McKenna, 2007). In order to meet the challenges for the new graduate in the practice setting, Nurse Residency Programs (NRP) have been established to address this gap.

Nurse residency programs have been in existence for several decades (G. Anderson, Hair, & Todero, 2012). Originating as a marketing strategy to draw nurses to areas in which recruiting was difficult, NRP's aim was to bridge the education to practice gap and reduce high turnover rates for novice nurses (McElroy & Drescher-Crumpley,

2012). In 2002, as a strategy to address the nursing shortage, The Joint Commission (2002) requested standardization of and funding for post-graduate residency programs to mirror what was already in place for graduate medical education. The past decade has seen an increase in hospital patient acuity with concomitant increases in the amount of specialized knowledge needed to practice in acute care settings, thus the relevancy of and need for NRPs has increased (Goode & Williams, 2004). Benner and colleagues in their report on the Carnegie study of nursing education (Benner, Sutphen, Leonard, & Day, 2010), the Institute of Medicine (IOM) *Future of Nursing: Leading Change Advancing Health* report (2003) and the National Council of State Boards of Nursing (2011) have issued calls for nurse graduate transition assistance in the form of a one year, high quality, post-graduate residency program in a specific practice setting.

Nurse residents are hired into a residency program upon graduation aimed at education and support to develop clinical competence by improving decision-making skills related to clinical judgment and performance (Krsek & McElroy, 2009). Nurse residents' perception of their confidence, competence and ability to organize and prioritize their work is believed to significantly increase over the first year (Goode, Lynn, McElroy, Bednash, & Murray, 2013).

To date, outcomes associated with the transition of new graduates in NRPs are largely based on the aggregate of reported quantitative measures by nurse residents. These measures include self-image and satisfaction, competency rating scales, measures of organizational commitment and job retention (G. Anderson et al., 2012; Goode et al., 2013). Nurse residency programs have been found to improve nurse graduate retention (Altier & Krsek, 2006; G. Anderson et al., 2012; Goode et al., 2013; Setter, Walker,

Connelly, & Peterman, 2011; Ulrich et al., 2010), promote job satisfaction (Altier & Krsek, 2006; T. Anderson, Linden, Allen, & Gibbs, 2009) and develop confidence and competence (Goode et al., 2013; Ulrich et al., 2010).

Despite nurse residents' perceived improvements in confidence and competence, they persistently rate code and emergency response situations among the top three skills with which they remain uncomfortable (Goode et al., 2013). This is supported by an earlier study on nurse residency outcomes (Casey, Fink, Krugmann, & Propst, 2004). Higher levels of clinical competence are needed for new graduate nurses to fluidly transition to practice in increasingly complex, often ambiguous and rapidly changing patient care encounters.

One specific encounter that requires significant decision-making skills and clinical judgment is the care of the deteriorating patient. Deteriorating patients often demonstrate changes in vital signs, oxygenation status or altered mental status that may be used to denote severity of illness and mortality (Goldhill, White, & Sumner, 1999; Roller, Prasad, Garrison, & Whitley, 1992). Warning signs of patient deterioration often precede cardiac arrest (Goldhill & McNarry, 2004; Goldhill et al., 1999) with a median time of six hours (Winters et al., 2013).

How a nurse responds to a deteriorating patient is a component of bedside practice that requires unique decision-making; skilled immediate judgment is necessary. This process may not be intuitive for the novice nurse. Caring for these patients may be the greatest challenge facing new graduate nurses.

Although a team approach to patient safety is widely emphasized in health care systems, the nurse, as the team member with the most ongoing patient contact, is often

the first person presented with patient cues of clinical deterioration. Knowledge and experience are important factors affecting nurses' ability to detect and respond to cues of patient deterioration (Liaw, Scherpbier, Klainin-Yobas, & Rethans, 2011). Purling and King (2012) suggest the current health care system demands that new graduate nurses are expected to respond to patient deterioration as competently as more experienced nurses.

There is limited research on how new graduates respond to this encounter of caring for a deteriorating patient and even less research has been undertaken from the perspective of the nurse resident. One hermeneutic inquiry examined the experience of six novice nurses with less than twelve months of experience who participated in a resuscitation event. Four themes were revealed: *needing to decide, having to act, feeling connected,* and *being supported.* New graduates described having to make clinical decisions during the resuscitation event without having the opportunity to consult with others or use text references. This type of patient encounter, one in which they had no experience, created stress and in some cases resulted in poor decision-making. Furthermore, participant descriptions revealed a lack of emotional preparedness; support was provided from others only when the novice nurse appeared visibly upset as a result of the experience (J. Ranse & Arbon, 2008). This study was conducted in a hospital with a graduate nurse transition program and the researchers acknowledged that the strong emotional response diminished with increased exposure to resuscitation events. A limitation of this study was the use of focus groups as the only method of data collection which may have diluted individual descriptions of the experience.

The value of nurse residents' consultation with more experienced nurses during complex patient encounters was supported in an earlier study that examined near-miss

and adverse situations involving novices (Ebright et al., 2004). The environmental conditions supporting or hindering decision-making for novice nurses were revealed. One of the findings suggested that adverse situations may not have occurred had expertise been available to novices. Although the majority of events examined in this study were related to medication errors, almost half of the events were related to novices' inadequate knowledge base and inability to integrate available assessment data. This finding is supported by results in Hoffman, Aitken, and Duffield's (2009) study in which expert nurses were found to collect almost twice as many cues and were better able to cluster cues to identify patient problems than were novices.

These studies begin to highlight the difficulty encountered by novice nurses as they care for increasingly complex, often ambiguous and rapidly changing patient encounters. Yet, little is known about the nurse residents' perspective during the residency experience. Moreover, the personal and varied meanings associated with the experience of caring for a deteriorating patient by nurse residents are not fully understood. The unique needs of nurse residents with respect to the identification and management of patient deterioration warrants examination.

Utilizing phenomenology, and specifically hermeneutics as a philosophical perspective for such a study on nurse residents provides a way to see beyond the known empirical data to understand their lived experience in context. Therefore, the purpose of this study was to examine, using Phenomenology as a method, nurse residents' lived experience of caring for a deteriorating patient.

Significance of the Study

High patient acuity in hospital settings today presents increasingly complex disease processes that require astute clinical judgment to prioritize care. Nurse residency programs were developed to assist new graduates to transition into specialized, high acuity settings. The importance of caring for deteriorating patients who require immediate skilled judgment has been cited as a clinical challenge for nurse residents. There is a paucity of research on the unique needs of nurse residents when caring for deteriorating patients. Findings from this study may be used to improve nurse residency programs and by extension patient care for the future. The findings of this research may add to current nurse residency program outcome criteria to establish best practices.

Findings from this study may also be used to build knowledge for nursing education science. With looming nursing workforce retirements, nurse residents will increasingly comprise a larger percentage of the nursing workforce. Nursing education is in the midst of a transformation with emphasis on the development of an attuned response-base practice and the ability for graduates to recognize the most salient aspects of a clinical situation (Benner et al., 2010). Understanding the meaning of nurse residents' subjective experience may inform pedagogical strategies for undergraduate nursing programs. Moreover, the findings from this study may inform ongoing updates of nurse residency curricula to enhance the experience for nurse residents, especially regarding ways to increase their confidence and competence when caring for a deteriorating patient. The IOM's *Future of Nursing* report (2010) has identified examination of the key features of NRPs that result in increased resident confidence and competence as a research priority for transforming nursing practice. Furthermore, the

findings from this study may be used to create new models for nurse residency preceptors. Finally, information from this qualitative hermeneutic study may serve as the basis for hypotheses for quantitative studies on the development of self-confidence and competence in nurse residents.

Chapter Summary

This chapter has presented the background for the current problem under study "the perspectives of nurse residents in caring for a deteriorating patient". There is a paucity of research on this important aspect of care even though it has been cited as one of the most significant areas of discomfort and anxiety for nurse residents. The significance of the study findings were presented to include an increase in knowledge for nursing education science, an opportunity to inform undergraduate curricula, and an addition to current nurse residency program outcome criteria that could be used to establish best practices.

CHAPTER II

REVIEW OF THE LITERATURE

As advanced beginners, nurse residents view patients as "perplexing collections of problems and conditions for action" and are concerned equally about their own abilities and patient status (Benner, Tanner, & Chesla, 2009, p. 26). Deteriorating patients require immediate skilled judgment; caring for these patients may be the greatest challenge facing new graduate nurses. The purpose of this chapter was to present the theory and research related to nurse residents' caring for deteriorating patients. In order to explore what is known about this phenomenon, several diverse topics were reviewed. The review begins with a presentation of the literature on key issues in nursing and healthcare today and the current state of nurse residency programs. Because residency programs aim to facilitate role transition, from student nurse to registered professional nurse, theories related to transition and new graduate nurse role transition are presented. Nurse residency programs, their structure and curriculum as well as their impact on nursing practice from both an individual (nurse) view and organizational view are explored. Because preceptors are the primary way nurse residents are educated, theory on preceptor role in nursing education, especially their role in nurse residency programs are presented. Next, because the focus of the study is the nurse residents' perspective on caring for a specific emergency response patient, requiring complex clinical decisions, the literature on clinical decision-making and emergency response patients are reviewed. Lastly, published work on deteriorating patients, their special needs, and the role of the health professional and specifically the nurse are presented. Utilizing the review, a synthesis and critique of the current literature on the perspective of nurse residents' caring for a

deteriorating patient are discussed. Following this, a focus on the current gap in the literature and significance of the phenomenon under study are presented.

Nursing Education: Issues and Trends

Nursing education is in crisis. This notion stems from (a) the building workforce shortage which is expected to peak in 2020; (b) inadequate preparation of nurses to practice in the high-acuity workplace of today; and (c) deficiency of lifelong learning skills. This has been eloquently stated by Benner and colleagues in their report on the Carnegie study of nursing education (Benner et al., 2010). There are many contributing factors to this crisis. The American Association of College of Nurses enrollment and graduation report notes that entry-level baccalaureate programs in nursing rose 6.1% from 2009 to 2010 (American Association of Colleges of Nursing, 2010). At the same time the National League for Nursing, [NLN] (2010) reported that nurse faculty vacancy rates continued to grow. There is now an unfilled full-time faculty line present in approximately one third of all nursing schools nationwide. An understaffed nursing faculty is now being asked to educate more students at a higher competency level for a more complex workplace than that faced by nurses even one generation removed. As a result of these identified deficiencies, nursing education is in the midst of transformation.

Given the complexity of current nursing practice and rapidly changing practice settings, schools of nursing cannot solve new graduate deficiencies alone. Novice nurses are often astounded by the amount of clinical knowledge and skills required of them. Nurse residency programs, aimed to support transition, have been in existence for several decades (G. Anderson et al., 2012). Nurse educators in the academic and service arenas have long recognized the gap between new graduate nurses' critical thinking ability,

comfort, confidence, skill proficiency, and the ability to provide safe competent care in the increasingly complex health care environment (del Bueno, 2005; Fink et al., 2008; Gillespie & Peterson, 2009; Newton & McKenna, 2007). The difficulty encountered by new nurses' during this transition to practice is underscored by the high turnover rates. Turnover rates for new nurses have been reported to range from 27% to 57% during the first one to two years of practice (Bowles & Candela, 2005; PricewaterhouseCooper's Health Research Institute, 2007). The resultant costs to the organization include potential effects on quality of patient care and financial in the form of unreturned outlays as well as potential threats to the sustainability of the nursing profession (Ulrich et al., 2010).

The momentum for NRPs continues to grow based on sheer volume of available programs in the United States. Calls for nurse graduate transition assistance in the form of post-graduate residency in a specific practice setting has been issued by Benner and colleagues in their report on the Carnegie study of nursing education (Benner et al., 2010) and the Institute of Medicine's (2010) *Future of Nursing: Leading Change Advancing Health* report. Support for this initiative is evident in the regulatory model for transition developed by the National Council of State Boards of Nursing (2011). This model, currently under study in a longitudinal, multi-institutional, randomized trial in three states, will require nurse residents to show evidence of completion of a NRP in order to maintain their license one year after practice.

Nurse Residency Programs

Assistance for nurse graduate transition to practice, in the form of nurse residency programs, began as a marketing strategy to attract new nurses into hard to recruit areas (G. Anderson et al., 2012). As early as 1982, one of the first nurse internship programs

compared role transition experienced by interns to role transition for nurses in traditional hospital orientation programs (Dear, Celentano, Weisman, & Keen, 1982). Prior to this time, although not formally titled as a nurse residency, a role transformation program consisting of a series of seminars instituted in eight medical centers in 1979 was found to ease new graduate transition (Schmalenberg & Kramer, 1979). In 2002, as a strategy to address the nursing shortage, The Joint Commission (2002) requested standardization of and funding for post-graduate residency programs to mirror what was already in place for graduate medical education. As a result, the University Healthsystem Consortium (UHC) and the American Association of Colleges of Nursing (AACN) joined efforts to design and pilot test a standardized baccalaureate residency program. United Health Consortium/American Colleges of Nurses (UHC/AACN) nurse residency programs are underpinned by Benner's Novice to Expert model of knowledge and skill acquisition (1984/2001). In 2002, six programs were initiated; today there are programs in 92 sites across thirty states (McElroy & Drescher-Crumpley, 2012).

Despite the call for standardization, NRPs have evolved into a wide variety of programatic structures and curriculas in hospitals across the United States. While there is growth of the UHC/AACN nationally accredited one-year nurse residency programs, considered the "gold standard", a recent systematic review reveals persistent variation in the types of nurse residency programs offered to new graduates (G. Anderson et al., 2012). Regardless of this limitation, the relevancy of NRPs has increased as a result of specialized knowledge base needed to practice in acute care settings (Goode & Williams, 2004). More recently, transition programs have been called for across all settings

(Benner et al., 2010; Institute of Medicine, 2010; National Council of State Boards of Nursing, 2011).

Nurse Residency Program Structure and Curriculum

Nurse residency program length and curricula vary outside of accreditated programs, however, most often nurse residents are assigned to work with a preceptor and attend monthly didactic classes (G. Anderson et al., 2012). Four distinguishing features determine the type of nurse residency program (a) the use of a consistent preceptor for the nurse resident; (b) the number, type and quality of learning activities; (c) opportunities for marker events or simulation experience and; (d) whether or not the program is eligible for Commission on Collegiate Nursing Education (CCNE) accreditation (G. Anderson et al., 2012). Accreditation eligibility requires an academic-service partnership as identified in UHC/AACN nurse residency programs.

The educational component of NRPs ranges from four to eight hours of didactic classroom learning each month. Some NRPs provide an opportunity for socialization with other nurse residents in their program cohort and a few programs provide simulation experiences. In a recent integrative review, the authors found descriptions of nurse residency education content ranged from detailed and replicable ones to inconsistent ones in both implementation and faculty requirements (G. Anderson et al., 2012). The authors concluded that current variation in NRPs presents difficulty in determining the optimal educational program to facilitate nurse resident transition. Moreover, and importantly, it was suggested that the use of theoretical frameworks may help guide nurse residency curriculum development.

Benner's (1984/2001) *Novice to Expert* theory of knowledge and skill acquisition has been cited most often to guide nurse residency curricula development and delivery. Other frameworks identified to underpin NRP's include: Organizational theory of learning, experiential learning and Duchscher's (2008) novice nurse transition theory (G. Anderson et al., 2012; Herdrich & Lindsay, 2006; Schoessler & Waldo, 2006; Varner & Leeds, 2012).

Novice to expert curriculum content in UHC/AACN nurse residency programs focuses on three areas: leadership, patient safety, and professional role. A component of professional role development has been identified as the ability to manage changing patient conditions (Goode et al., 2013). Simulation has been identified as a strategy to develop this ability (Cooper et al., 2010).

In one study with a sample of 90, the use of simulation within nurse residency programs was suggested as a strategy to improve retention of nurse graduates through enhancing job satisfaction and employee engagement (T. Anderson et al., 2009). As part of an "interactive" nurse residency curriculum, five high-fidelity simulated scenarios were implemented in addition to (a) email support from peers and faculty; (b) completion of a professional portfolio; and (c) monthly guided journal assignments. Nurse residents indicated that one of the most satisfying aspects of their work was being part of a team. This finding was consistent throughout the residency program and at one year of employment. Nurse residents' sense of belonging to the team was impacted by the availability of trusted mentors and a nurse manager who was accessible and helped to guide new nurses' learning and development. The most dissatisfying aspects of the NRP were staffing challenges, lack of physician support, and lack of teamwork. The authors

concluded that dedicated resources are essential to provide a NRP that offers both support to new graduate nurses and aims to discover dissatisfying aspects and stressors that may contribute to high turnover rates (T. Anderson et al., 2009).

Efforts to increase retention of new graduate nurses are evident in current literature. Ongoing support of nurse residents to reduce turnover during the first year of practice and develop future nurse leaders was the focus of a Novice Nurse Leadership Institute based on an academic-university partnership. A qualitative study using pre and post focus groups with a total sample size of eighty-one was conducted to better understand the learning needs and transition experience of novice nurses (Dyess & Sherman, 2009). Participants received content focusing on enhancement of clinical judgment skills and leadership skill development using the American Organization of Nurse Executives (AONE) and the Robert Wood Johnson Executive Nurse Fellows competencies. Curriculum was delivered in twenty full-day learning sessions and complemented by asynchronous dialogues on web-based platforms. Nurse residents indicated that extended collegial support in the form of reflective group peer discussions throughout the first year was critical to his/her success. Two additional important findings were revealed in this study: suboptimal communication with physicians and nurses' experiences of horizontal violence in the workplace. Moreover, a significant finding pertaining to nurse residents working in specialty units was found: As a result of complex patient care demanding high levels of critical decision-making, nurse residents identified the need for additional content on disease management and technology *and* the need for transition support that would include opportunities to process emotions related to intense patient situations they encountered (Dyess & Sherman, 2009). A supportive

component, scheduled debriefing and self-care sessions for nurse residents to voice their feelings about their experiences as new graduate nurses, as part of a large multi-site NRP was associated with a decrease in 12-month turnover rate from 36.08% to 6.41% ($p < 0.05$) (Trepanier, Early, Ulrich, & Cherry, 2012).

Nurse Residency Program Outcomes

The impact of nurse residency programs in easing transition for new graduates has been largely based on nurse reported measures of self-image and satisfaction; unit competency measures and health care organizational measures (Anderson et al., 2012). Nurse residency programs have been found to: improve nurse graduate retention (Altier & Krsek, 2006; G. Anderson et al., 2012; Goode et al., 2013; Setter et al., 2011; Trepanier et al., 2012; Ulrich et al., 2010; Varner & Leeds, 2012), net savings in a cost-benefit analysis when compared to traditional methods of orientation (Trepanier et al., 2012), promote job satisfaction (Altier & Krsek, 2006; T. Anderson et al., 2009; Varner & Leeds, 2012) and develop confidence and competence (Goode et al., 2013; Ulrich et al., 2010). Despite participation in a NRP, role transition from student to the role of professional nurse persists as a difficult process for many nurse residents (Dyess & Sherman, 2009; Fink et al., 2008). In a ten year study on UHC/AACN nurse residency programs, nurse residents rated professional satisfaction very high upon entry into the program, after which there was a statistically significant decrease at sixth months (Goode et al., 2013). The six month mark is a significant time period for novice nurses, often referred to as a time of 'crisis' (Duchscher, 2008; Varner & Leeds, 2012). Furthermore, nurse residents consistently identified the response to code and emergency situations as a skill with which they remain uncomfortable throughout the residency year (Goode et al.,

2013). This finding is consistent with earlier research findings from a study on nurse residency program outcomes in which the qualitative portion of the Casey-Fink Graduate Nurse survey (2004) was used to enrich quantitative data (Fink et al., 2008). The qualitative portion of this survey indicated that new graduate nurses continued to express fear and concern of harming patients during the one year residency program. The researchers determined that analysis of the qualitative comments could be used to convert open-ended questions to quantitative questions to facilitate ease in administration and analysis of the survey (Fink et al., 2008). Nurse resident participation in data collection process has been challenging (Goode et al., 2013). In order to continually update and revise NRPs, nurse resident feedback data is essential. While data collection may be facilitated by having a quantitative tool that is easy to administer in that it may encourage participation, a significant limitation of this method of data collection is the loss of nurse residents' voices surrounding a potentially emotional event; this would lead to the need for further qualitative inquiry in future research. In order to achieve successful outcomes on both an individual and organization level, it has been suggested NRPs use quantitative and qualitative outcome measures to evaluate transition and an achievement of demonstrated competencies (Ulrich et al., 2010).

Transition

According to *Webster's New World Dictionary* (1988), transition is defined as the passage from one state, condition or place to another. Most transitions are associated with significant life events; models of transitions aim to describe how individuals respond to changes (Williams, 1999). Transition is a pivotal theory in the discipline of nursing focusing on promoting, maintaining, and restoring health to diverse individuals in various

settings. Developmental, situational, and health-illness have been identified as types of transitions (Chick & Meleis, 1986). By considering human responses to transition, nurses are well poised to assist individuals during this critical time to improve patient outcomes. Organizational transitions, representing transitions within environments have been a focus of study within nursing (Schumacher & Meleis, 1994). Transitions theory and specifically new graduate nurse role transition theory was therefore reviewed.

Schumacher and Meleis (1994) described two elements universal to transitions: time and nature of change. First, transitions are processes that occur over time; transition development is often described in stages. Second, change in individuals occurs with respect to identity, role, relationships, abilities, or patterns of behavior. These two elements help to differentiate transitions from non-transitional change. Professional role development is considered a type of situational transition. Conditions of transition include meanings, expectations, level of knowledge and skill, the environment, level of planning, and emotional and physical well-being (p. 121). Meaning is the subjective assessment of a transition and an appraisal of its likely effect on one's life. Expectations encompass other subjective phenomena that influence the transition experience. Level of knowledge and skill relevant to a transition influences the outcome and may be inadequate to meet the demands of the situation (Schumacher & Meleis, 1994). The transition environment, specifically available resources such as social support and/or organizational support in the form of a preceptor or mentor is another condition of transition. The degree of planning that occurs before and during a transition is another important condition that influences successful transition. Two aspects of effective planning include: ongoing assessment and evaluation for prompt identification of

problems, issues, or needs and effective communication between supportive persons and those undergoing transitions. Emotional and physical well-being is the final condition of transition identified by Schumacher and Meleis (1994). A wide range of emotions may be experienced and physical well-being may be affected. Stress response to transition may be in the form of anxiety, insecurity, frustration, depression, apprehension, ambivalence, and loneliness (p. 123). Physical well-being is important during transition; when physical discomfort accompanies transition it may interfere with the processing of new information.

Health transition outcomes have been identified as a subjective sense of well-being, mastery of new behaviors, and the well-being of interpersonal relationships. Schumacher and Meleis (1994) emphasized these 'outcomes' may occur at any point during the transition. To that end, successful transition indicators should be assessed for at various times throughout the transition period and not merely at the end. When transition is successful, feelings of distress give way to a sense of well-being. Comfort in new situations and skilled role performance indicate role mastery. Integration into broader social networks and restoration of well-being in relationships are believed to indicate successful transition.

New Graduate Role Transition

Transition from student to professional nurse has been widely studied in nursing. Forty years ago, Marlene Kramer (1974) coined the phrase 'reality shock' to describe discrepant and shock-like reactions of new graduate nurses when they enter the nursing workplace to find themselves in situations in which are unprepared for despite extensive preparation and beliefs of readiness (p. viii). *Reality Shock* theory emerged from

systematic collected case studies and 127 interviews with new graduate nurses. According to Kramer, the process of new graduate nurses' adult socialization into the occupational role as registered nurse is greatly influenced by those who socialize them, by the methods used in this process, as well as the focus of the demands made upon the new graduate during the socialization experience.

In Kramer's (1974) seminal work on new graduate transition, novice nurses identified nursing aides, physicians, and nurses at various levels of authority as socializing agents. However, the extent to which socialization was incorporated as a function of these individuals' role was widely variable. New graduate nurses were "warmly embraced by some, ignored by others" (p. 144). Kramer built on the work of Goffman (1959) when she described nurse aides as a group that over time provided the novice with the notion that a 'back region' exists. In an exploration of human behavior and appearances in social situations in *The Presentation of Self in Everyday Life,* Goffman (1959) used theatrical imagery to describe the way individuals present themselves in social interactions in order to guide the impression others may make of them. During a theatrical performance, the front region is where actors are viewed by the audience and positive aspects of self and desired impressions are illuminated. There is also a back region, a private place (behind the stage) where individuals may be themselves and rid their role or identity in society. Kramer asserted, 'back region' reality settled in when the new graduate departed from idealistic school norms with respect to either their behavior or attitude. In some cases this included not performing ordered treatments or in another case, giving a medication without a physician order. However, Schmalenberg and Kramer (1979) found that if the nurse's professional beliefs were

strong enough or there was some outside support, the correct procedure or behavior as learned during school socialization may reassert itself.

A second area impacting role transformation for the novice nurses was identified by Kramer (1974) as the method of socialization. New graduates nurses, accustomed to clear and explicit rules of performance standards in academia, were confronted with vague, implicit expectations and inadequate feedback on their performance. This informal method of socialization in the professional workplace created transition difficulty for novice nurses.

A final area influencing role transformation was that of the content of the socialization experience. Upon entry into the workplace, new graduate nurses were well equipped with previously learned values and behaviors; termed 'shoulds' of role appropriate behaviors (p. 151). The shock phase of the theory occurs when shoulds were not reinforced in the workplace; for example, by discovering nurse and physician incompetence and a system that accepts suboptimal practice. This created moral outrage, rejection, fatigue and perceptual distortion for new graduates. The sense of responsibility, a theme begun in nursing school was consistently recognized in the workplace. A main focus of Kramer's (1974) work was on the content of the socialization experience; for many novice nurses, the reality shock experience was so extraordinary that they could not perceive, hear, or comprehend many of the socialization directives sent to them.

Schmalenberg and Kramer (1979) extended the theory several years later with research on the institution of a New Graduate Role Transformation Program. They described the process of professional transition for new graduate nurses as one that

evolves in a moderately predictable fashion from the honeymoon phase, in which they are excited and exhilarated seeing the world through rose-colored glasses; through a shocking attack on their professional values resulting in disorientation and disappointment; and to the recovery and resolution phase in which a sense of balance is restored.

Marlene Kramer's extensive exploration of new graduate socialization that has influenced other similar theories over several decades continues today. In one large multi-site study across 20 Magnet recognized hospitals, nurse residents' challenges and concerns were the same management issues identified by novice nurses in 1966 (Kramer et al., 2012). The seven management issues identified were: delegation, collaborative nurse-physician relationships, feedback to promote self-confidence, autonomous decision making, prioritization, constructive conflict resolution, and getting my work done/utilizing the nursing care delivery system (Kramer, Brewer, & Maguire, 2011; Schmalenberg & Kramer, 1979).

The most effective components of NRPs to facilitate resolution of these management issues were identified as: the precepted experience, reflective seminars, skill acquisition, reflective practice sessions, evidence-based management projects, and clinical coaching/mentoring sessions. Furthermore, in another related study, the impact of new graduates' work environments on the development of reality shock emerged as an important aspect of transition (Kramer et al., 2011). In this study, a focus on concieving new graduates' misaligned role conceptions as a cause of reality shock was shifted to the impact of misaligned expectations of the work environment as the cause. Termed "environmental reality shock" was found to be reduced in new graduates who begin their

practice on clinical units with nurse-confirmed Healthy Work Environments (HWE). A HWE is defined as a unit in which a representative group of experienced nurses confirmed their work environment enabled them to engage in work processess and relationships essential to the provision of quality care (Kramer & Schmalenberg, 2002).

Duchscher's (2008) theory of transition offers another perspective on contemporary issues facing new graduate nurses during the first year of practice in acute care. *A process of becoming* described the considerable adjustment to the changing professional and personal roles occcuring during three stages: *doing*, *being*, and *knowing*.

The initial transition stage, *doing,* occurred during the first 3 to 4 months of practice . Initially excited, new graduates experienced shock as they realized unpreparedness for both the responsibility and heavy workload of the nurse role. None of the participants in the study were formally mentored and intense and fluctuating emotions ensued as graduates divided their energy between demanding professional adjustments and the sociocultural and developmental changes occurring within his/her personal life. High levels of stress were associated with caring for a clinically unstable patient. Furthermore, nurse graduates in this study were self-critical when they believed they had failed to identify or appropriately intervene in a changing clinical situation.

Novice nurses' experiences during the second stage, *being*, were marked with noticable growth in thinking, knowledge level, and skill competency concomitant with doubts regarding their own professional identity as a result of inconsistencies and inadequacies in the health care system. Furthermore, they struggled with desires for independence from their preceptor and feelings of abandonment when left without experienced nurses in unfamiliar or unstable situations. Frustration and high energy

demands, noted during the first stage, continued to 'crisis' levels during this stage. To cope, new graduates often retreated to their personal lives and chose to forego staff functions and refused over-time work. Recovery began at the latter part of this stage as new graduates recovered and reengaged with their chosen carreer. With less energy required to manage now familiar clinical routines, they were able to seek out practice situations to challenge their thinking as well as plan long-term carreer goals.

The final stage of transition, *knowing*, is characterized by new graduates' abilty to separate from the nurses with whom they work and to reunite with the professional nursing community. At the one year mark, new graduates experienced comfort and confidence with their roles, responsibilities, and routines. With respect to their personal life, new graduates continued their recovery begun in the second stage in which some noted a shift in supportive relationships from non-nursing friends to coworkers, while others solidified initmate relationships with engagements and weddings (Duchscher, 2008).

Duchscher (2009) extended *A Process of Becoming* theory by providing a theoretical framework for the *being* phase. This most immediate, acute and dramatic phase is termed 'transition shock'. The concept of transition shock built upon Kramer's (1974) work, transition theory, culture shock, and acculturation theory. Transition shock theory describes the process of developmental, intellectual, sociocultural, and physical adjustment related to the contradicting relationships, roles, responsibilites, knowledge and performance expectations between their protective academic setting and their current expectant professional setting (Duchscher, 2009, p. 1111). A critical factor of the transition experience was the graduate nurse's relationship with colleagues. The theory

suggests the need for education on the transition process in nursing school as well as extended, sequential, and structured orientation and mentoring programs post-graduation to foster strong relationships between the new graduate and the interdisciplinary team. In this study, the majority of senior nurses, clinical educators and nurse managers appeared to have limited understanding of the relatively inflexiblity of the nurse graduate practice capablites with an expectation that nurse graduates would be able to manage the workload of an experienced nurse within several weeks. A committed, supportive organization to understand and respond to the needs of the next generation of nurses is necessary (Duchscher, 2009).

Research on Nurse Resident Transition

Transition has been included in a number of studies examining nurse residents. Rapidly changing complex work environments have been described by nurse residents as chaotic (Clark & Springer, 2012). *Rythym in the chaos* theme was used to describe new graduates' feelings of being overwhelmed by the workload and the frantic pace of a typical workday. Statements describing 'running and thinking' and 'not enough time to really think about what is going on with a patient' supported the rythym in chaos theme (p. E4). This finding was supported in an early study that revealed nurse residents in structured mentoring programs were not immune to role conflict and stress as they begin to work in these environments (Fink et al., 2008).

In support of Duchscher's (2009) finding in which relationships with colleagues was identified as a forcaster for transition success, a qualitative descriptive study by Clark and Springer (2012) revealed a lack of support or interest from their preceptor as a stressor that led to transition difficulty. Thirty-seven nurse residents representing various

acute and ICU specialty areas were interviewed to examine the lived experience of nurse residency and job satisfaction during the first year of practice. The data was collected during nine focus groups from participants whose employment status ranged from eight days to nineteen weeks. To address the finding of lack of preceptor support, the researchers emphasized that it is the responsibility of nurse educators, leaders, and staff nurses to create and maintain a civil and collegial practice environment. Ongoing assessment of possible power differences is needed. Significant limitations of this study include a large sample size and the use of focus groups as a method of data collection which may have diluted individual attention to the phenomenon.

Power differences created stress for new graduate nurses when they were required to supervise and delegate to more experienced and older licensed and non-licensed personnel (Duchscher, 2009). The American Association of Colleges of Nursing's (AACN) Baccalaureate Essentials (2008) details the standards for preparing nurses to assume roles as managers and coordinators of care however nurse graduates in this ten year qualitative study on role adaptation claim they had not been prepared to take on this role or given the opportunity to practice this role during their undergraduate clinical education. This finding is similar to those found by Fink et al. (2008) in which nurse residents identified the need for the development of skills and confidence in directing assistive personnel.

The tumultuous experience of role transition for novice nurses has been extensively studied during the past forty years. Nurse residency programs have been identifed as a potential avenue to achieve smooth transition. Despite this, survey results and qualitative data from nurse residents continues to indicate just how difficult transition

is during the first year of practice (McElroy & Drescher-Crumpley, 2012). In another recent study, newly licensed nurses in a transition program have suggested that having extensive hand-on clinical experiences, knowledgable supportive preceptors, standardized teaching methods for hospital policies, and mentorship were most important to include to facilitate transition to practice (Spiva et al., 2013). Importantly, new graduate nurses are a vulnerable group in need of a supportive organization and leadership (Duchscher, 2009).

Preceptors

Background

The use of clinical preceptors to orient novice nurses and facilitate development of clinical skills is widely documented in the literature (Forneris & Peden-McAlpine, 2009). The concept of preceptorship is not new, dating back to 1882 with Florence Nightingale's recommendation for first year nurses' training to take place in the hospital setting under the guidance of a practicing nurses who were "trained to train" (Myrick, 1988; Udlis, 2008). This type of training continued for many decades despite the fact that a significant limitation of this teaching method was that students' educational needs were secondary to hospital nursing needs. With the movement of nursing education into the university setting in the 1950's, nursing faculty now assumed increased responsibility for clinical teaching. In the 1980's, a resurgence of preceptorships occurred in pre-licensure nursing programs for various reasons: as an effort to draw academia and service closer, reduce reality shock and as a means to increase quality of student learning. This 'new' method of clinical teaching was evaluated positively by the students, faculty and preceptors (Backenstose, 1983).

The nurse preceptor role is multifaceted encompassing that of expert, role model, teacher, coach, facilitator, and evaluator (Forneris & Peden-McAlpine, 2009; Myrick & Yonge, 2005). The use of preceptor models continues today and is supported by the American Association of Colleges of Nursing (2006) as a means to provide students with quality clinical experience. One important aspect of clinical experience is being socialized to the role of professional nurse. As early as 1989, evidence of improved professional socialization of novice nurses at six months of practice as a result of student preceptorship when compared to students who had not had a preceptorship was documented in the literature (Clayton, Broome, & Ellis, 1989). The intense relationship formed between student and nurse preceptor allowed for exposure to occupational identity through dialogue, role modeling, and observation. Occupational identity exposure during nursing school may have helped to resolve the incongruence experienced with reality shock, thus facilitating professional role behavior function. At six months post-graduation, novice nurses who were precepted as students scored higher on leadership, teaching/collaboration, interpersonal relations, and communication as compared to nurses who were not precepted as students.

Preceptor Role Theory

Stuart-Siddall and Haberlin (1983) offer one theory to describe the various roles of the clinical preceptor: role model, designer of instruction, resource person, and supervisor. The first role, that of role model, is an effective mode of teaching and one for which the preceptor cannot prepare for. The student learns by observing, analyzing, and questioning the preceptor's style of practice, interactions with patients and colleagues, and responses to a multitude of personal and professional demands. The preceptor has

the responsibility to maintain a level of self-awareness to reflect on behavior, motives, and feelings with the student.

The second preceptor role, designer of instruction, emphasizes the planning phase of the learning process. In this role, the preceptor and student analyze behavioral objectives in an effort to determine the clinical activities leading to the fulfillment of objectives. The preceptor's third role, resource person, considers the appropriateness of the preceptor as a resource. The student is encouraged to take advantage of all resources and to consult with the preceptor only when it is determined that the preceptor is the most appropriate resource. The final role of the preceptor described by Stuart-Siddall and Haberlin is the preceptor as supervisor. The primary goal of this role is to increase the student's professional autonomy. The preceptor promotes autonomy by creating conditions that encourage the student to take initiative in examining and then modifying their behavior or knowledge. This is a passive role for the preceptor but active role for the student. Haberlin (1983) emphasized that preceptors require an orientation to each of these teaching roles in order to create an atmosphere that allows and encourages independent, self-directed learning for the student.

Nurse Residency Preceptorships

Preceptorships, designed to support clinical learning in nurse residency programs range in both intensity and length. Direct nurse preceptor support varies from one day a month to every shift for the first six months (G. Anderson et al., 2012). Challenges to adequately perform in the role of preceptor continue to mount as a result of financial constraints, specialized workplaces, and increased patient assignments. Nurse educators have been called to support preceptors (Shinners, Mallory, & Franqueiro, 2013).

Although preceptors may express perceptions of inadequacy in their role, preceptees do not appear to note deficiencies as they consistently identify preceptors as integral to their learning (McClure & Black, 2013).

Formal preceptor training and support has been acknowledged as an important component to enhance optimal role function (Bratt, 2009). In Bratt's study, nurse resident retention improved from 50% to 84% with the institution of this program in which their transition was supported by having preceptors and clinical mentors who were formally trained in the role. Furthermore, continual mentoring by clinical coaches lasting for 15 months enhanced transition. Clinical coaches selected by either nursing leadership or the nurse residents themselves underwent a training session to foster their role performance.

The National Council of State Boards of Nursing's (NCSBN) Transition to Practice model (2011) supports preceptor training. In this model, a trained preceptor is assigned to work with the newly licensed nurse for the first six months of practice to provide expert feedback, foster reflective practice, role model safe and quality patient care, and socialize the novice nurse into the role of a nurse.

Preceptors serve as clinical experts, provide day-to-day instruction for the novice nurse, and evaluate development and competence. The new nurse-preceptor relationship significantly influences a novice's transition into practice (Moore & Cagle, 2012). Having someone to turn to for assistance was viewed as essential by staff nurses, however nurse graduates feared burdening experienced staff with questions or requests for assistance. Fears were diminished if the relationship was strong and, importantly, seamless transition to the workplace was reported most often by new graduate nurses

who developed positive and trusting relationships with experienced nursing staff (Romyn et al., 2009).

Preceptorships may positively impact recruitment and retention of new graduate nurses and often serve as the linchpin between the education environment and clinical practice. Current research on clinical preceptorships has progressed from focusing on development of clinical skills to the development of critical thinking. Expert nurses, according to Forneris and Peden-McAlpine (2009), may be more effective preceptors if they use context and dialogue to link 'thinking and doing' to stimulate novice nurses' critical thinking skills as they transition to professional practice. In their qualitative study using a case study method to examine nurse/preceptor dyads, the authors described a contextual learning intervention (CLI) that was implemented to facilitate novice nurses' critical thinking development. Within the CLI, preceptors coached novices' critical thinking development through the use of reflection, context, and dialogue (Forneris & Peden-McAlpine, 2009). One element of CLI was comprised of preceptors to "think out loud" as they were planning and providing care. In this way, preceptors made visible to the novice implicit knowledge behind their actions and as a result, conversations between the two progressed from questioning content knowledge to a reflective, metacognitive conversation. Forneris and Peden-McAlpine's CLI is supported by previous research on expert practice that is characterized by intuitively seeing and responding to the salient issues in a situation (Benner et al., 2009). Contextual Learning Intervention provided a teaching structure that facilitated questioning to develop novices' critical thinking. The ability to incorporate dialogue that invites questioning in a reflective and critical manner requires preceptor education (Forneris & Peden-McAlpine, 2009).

'Inviting' and 'questioning' were two of several preceptor behaviors that may be presented positively or negatively to the novice nurse (Diekelmann & Diekelmann, 2009). Concernful Practices (CP), based in Heideggerian hermeneutic phenomenology, describes the ways individuals relate to one another and form the foundation of relationships. Presencing, gathering, caring, listening, and interpreting were additional influential preceptor behaviors impacting novice nurses' transition. In support of Diekelmann and Diekelmann's (2009) theory, Moore and Cagle (2012) used CP's to examine the phenomenon of being a new nurse during an internship program. In this study, the findings revealed that novices highly valued preceptors' presencing which was viewed as attending and being open. A supportive environment with a preceptor who pushed but also mentored the novices in this study to become competent nurses was most important. Moore and Cagle (2012) concluded that engaged openness may be an essential prerequisites for an effective new nurse-preceptor relationship. An effective nurse-preceptor relationship may positively influence the development of a significant component of nurse resident competency – clinical decision-making.

Decision-Making

Decision-Making and Problem Solving

Decision-making is an important human activity and has been the focus of study across many disciplines. Two theoretical frameworks that explain the cognitive process of decision-making evolved in the fields of economics and psychology. Von Neumann and Morgenstern (1944), a mathematician and an economist formulated the Neumann-Morgenstern utility theorem. Titled *Subjective Expected Utility Theory* (SEUT), the theory explains how decisions 'ought' to be made by using probability estimates that

determine the best choice according to mathematical estimates (Simmons, 2010). Therefore, a decision is made by assigning values to expected outcomes and by assigning probabilities, or decision weights, to uncertain outcomes. Some believe when normative criteria measures are used to indicate the best outcome, judgment quality or decision accuracy may be better predicted (Dowding & Thompson, 2003). Using prescribed steps may achieve optimal outcomes in some cases however when the solution path is not known, solvers will use various strategies or 'rules of thumb' to reduce solution possibilities in order to reach a decision (Kotovsky, 1992).

The use of various strategies in problem solving is reflected in *Information Processing Theory* (IPT). This theory evolved in psychology and also describes cognitive processes of decision-making, but focuses on 'how' decisions are made (Newell & Simon, 1972). IPT explains decision making as a process of gathering alternatives, weighing options, and then making a judgment (Simmons, 2010). This work on IPT established information processing and storage of knowledge as important components of the problem solving framework (Kuiper & Pesut, 2004; Newell & Simon, 1972). Bounded rationality is the term used to describe a significant assumption of the theory (Simmons, 2010). Stored knowledge is posited to be more readily retrieved from short-term memory than long-term storage sites, however, there are limits to the number of information elements that can be stored and easily retrieved.

Current understanding of problem solving evolved from Newel and Simon's (1972) work. Problem solving is divided into categories based on: (a) the type of problem; (b) the type of process used to solve problems; and (c) the problem solver (Kotovsky, 1992). Problems may be categorized based their 'state spaces' or how well

defined the solution or goal is (p. 542). State spaces are a function of how many choices (moves) must be made, and these moves present increasing difficulty as state spaces enlarge. However, some problems have small state spaces but present difficulty because of either the non-obvious nature of the move or difficulty applying the move. A second aspect influencing problem solving is whether or not the process of the solution is known. As discussed earlier in *Subjective Expected Utility Theory*, a known set of operations in a set sequence, or an algorithm, would create relative ease in problem solving. Conversely, when the solution path is unknown, addition strategies are required. In such situations, the space state is quite large and the use of heuristics plays a crucial role to reduce the amount of space state (Kotovsky, 1992).

Heuristics are informal thinking strategies that enable the ambiguity of decision-making to be managed (Kahneman & Tversky, 1982; Simmons, 2010). The experience or ability of the problem solver is the third aspect that influences problem solving. As supported in the nursing literature, this plays an important role in problem solving. Chase and Simon (1973) describe pattern recognition as a mode of expert problem solving used by master chess players. Expert chess players developed a perceptual skill in which 50,000 to 100,000 immediately recognizable patterns were formed (Kotovsky, 1992). These patterns could be called upon without calculation of all possible contingencies (p. 515). Conversely, novices recognized significantly fewer patterns. The analysis demonstrated that expert chess players, as a result of experience, did not have better memories but rather remembered the board in larger segments that represented meaningful relationships to each other. Pattern recognition, termed intuitive reasoning,

has been identified in the nursing literature as automatic and is demonstrated by expert nurses (Benner & Tanner, 1987).

Clinical Decision-Making in Nursing

Acute care nursing practice is noticeably different today than it was only two decades ago. Rapid advances in science, technology, and practice coupled with greater American life expectancy has made the nursing workplace increasingly complex, fast paced, and unsettled. For new nurses the task of knowledge acquisition coupled with workplace acclimation is more daunting than ever. In these settings of even more complex patient care, nurses must demonstrate the ability to use knowledge, engage in reasoning and "respond to salient patient care issues in concerned and involved ways" (Benner et al., 2009, p. 200). Decision-making in complex clinical situations is viewed to be commonplace for nurses in acute care settings (Ebright, Patterson, Chalko, & Render, 2003). Clinical decision-making has been described as a process that involves searching for information, alternatives, and options; scrutinizing objectives and values; evaluating and re-evaluating consequences; and the unbiased assimilation of new information (Jenkins, 1985).

Clinical Judgment Theory

Tanner's (2006) *Clinical Judgment Theory*, based on an extensive review of almost 200 studies examining clinical judgment, offers one explanation of 'how nurses think' when they are involved in complex patient care situations requiring decision-making. In this exhaustive review, Tanner reached several conclusions regarding this sophisticated process: (a) judgments made by nurses are influenced more by what the nurse brings to the situation than the objective data contained in the clinical situation; (b)

judgments are influenced by the nurse's ability to know the patient as an individual in addition to knowing usual pattern of responses; (c) the context of the clinical encounter influences decision-making; (d) nurses use various patterns of reasoning when making decisions; this is termed clinical reasoning and (e) a perceived or actual breakdown in clinical judgment serves as a trigger for reflection. Reflection is essential for developing clinical judgment and improving clinical reasoning. Tanner (2006) proposed that the model provides insight into the thinking processes of nurses and may assist educators to identify specific problem areas for feedback and coaching.

According to Tanner (2006), clinical judgment refers to a process by which nurses come to understand patient problems, issues, or concerns and respond in a caring manner to the most important aspects of the situation. Clinical reasoning is the term used by Tanner to describe how experienced nurses use interrelated patterns of reasoning (analytic, intuitive and narrative thinking). Such reasoning patterns are combined with theoretical and practical knowledge, the nurse's vision of nursing excellence, knowing the patient and the context of the situation in order to make a clinical judgment (Benner et al., 2009). The four integral processes of clinical judgment are noticing, interpreting, responding and reflecting (Figure 1.)

"Noticing" is described as the perceptual grasp of the situation (Tanner, 2006). Nurses' expectations of the situation influences noticing. Expectations of each patient encounter is shaped by several factors: (a) the nurse's relationship with this specific patient (knowledge of the patient's pattern of response); (b) the nurse's background including clinical experience and knowledge of similar patients as well as theoretical knowledge; and (c) the context of care including the nurse's vision of excellent practice,

values related to the particular patient situation, as well as the care culture and complexity of work on the particular unit (p. 208). The possibility of noticing is influenced by whether or not the nurse's expectations are met.

"Interpreting" involves developing a sufficient understanding of the situation in order to respond. Nurses use a variety of reasoning patterns during decision-making that are dependent on their initial grasp of the situation. When there is a lack of essential knowledge, a nurse may use an analytic process to compare collected assessment data with textbook information in order to formulate a plan of care. Intuition, characterized by an immediate apprehension during a clinical encounter, may be used when experience with similar situations or pattern recognition is apparent in the current clinical encounter. Narrative thinking, as opposed to paradigmatic thinking is another reasoning mode used by nurses. Narrative reasoning is rooted in understanding the patient as an individual. This understanding forms a rich background against which a nurse may plan appropriate actions (Tanner, 2006, p. 207)

Tanner (2006) acknowledged other reasoning patterns noted in the literature, affirmed that not one reasoning pattern is sufficient for all situations or a level of experience and selection of a reasoning mode is largely dependent on the nurse's initial grasp of the situation. Engaged practical reasoning is characteristic of expert nursing judgment. "Responding" evolves from interpreting and involves deciding on an appropriate course of action or deciding to take no action. The model presents reflecting as two separate elements. "Reflection-in-action" refers to the nurse's ability to determine how the patient is responding to the intervention *during* the action and revise the plan as needed. "Reflection-on-action" occurs when there is a breakdown in clinical judgment.

An in-depth review of experiences requires a sense of responsibility and is critical to the development of clinical knowledge and improvement in clinical reasoning (p. 209).

The development of optimal clinical judgment requires a flexible and nuanced ability to recognize salient aspects of an indeterminate clinical encounter, interpret the meaning of the situation, and respond appropriately (Tanner, 2006). Engaged practical reasoning represents expert nursing judgment. As a caring practice, astute clinical judgment represents the integration of sound theoretical knowledge, a grasp of the clinical situation, and skillful ethical comportment (Benner et al., 2009, p. 387).

Tanner (2006) and other nurse scientists (Banning, 2008; Simmons, 2010) have initiated distinctions between the terms decision-making, problem solving, and clinical reasoning. The cognitive process of thinking has been termed clinical reasoning in the nursing literature. The terms decision-making and problem solving often refer to the outcome or end result of thinking. Benner et al. (2010) delineate clinical reasoning as "the ability to reason as a clinical situation changes, taking into account the context and concerns of the patient and family" (p.85).

Information Processing Theory (IPT) is congruent with clinical reasoning as it encompasses the elements of cognition, metacognition, reflection, as well as contextual patterns of the patient and environment. In contrast to the algorithm approach to decision-making found in SEUT, IPT represents decision-making as nonlinear, multidimensional, and iterative (Simmons, 2010).

Research on Novices and Clinical Decision-Making

Studies specifically targeting new graduate nurses' decision-making/judgment are limited (Wiles, Simko, & Schoessler, 2013). This may be the result of the complexity of

decision-making or the lack of current and relevant instruments to measure critical thinking and knowledge application (G. Anderson et al., 2012). Furthermore, inconsistency in quality of critical thinking instruments and lack of application to clinical settings has been identified (Berkow, Virkstis, Stewart, Aronson, & Donohue, 2011; Swinny, 2010).

Despite difficulty in measurement, schools of nursing and post-graduate nursing residency programs aim to facilitate the development of effective decision-making skills related to clinical judgment and performance. Unfortunately, most new graduate nurses do not meet expectations for entry-level clinical judgment ability (del Bueno, 2005). This finding is based on aggregate data from the Performance Based Development System (PBDS) used in more than 350 health care agencies in 46 states during a ten year period. The clinical judgment portion of the PBDS consists of video simulations depicting a change in patient status. A new nurse employee is asked to accurately identify the problem or deviation from normal health status in writing, list independent and collaborative actions within a relevant time period, and provide rationales for actions. The assessment is scored by a trained individual using validated criteria to determine if competency is achieved. The overall score ranges on a continuum from unacceptable (unsafe) to expert (exceeds expectations). Novice nurses are expected to be at the entry (safe practice) point. Sixty-five to 76% of new graduate nurses did not meet expectations for entry-level clinical judgment ability (del Bueno, 2005).

More recent, the PBDS was administered to newly hired nurses (n = 2144) in an effort to identify their learning needs (Fero, Witsberger, Wesmiller, Zullo, & Hoffman, 2009). The findings revealed that 30% of new graduate nurses (n = 1211) had

deficiencies in critical thinking, problem recognition, reporting essential clinical findings, and initiating interventions and providing rationales (Fero et al., 2009). The authors acknowledge a limitation of the PBDS assessment process; the specific problem of the individual being tested is not discriminated. It remains unknown if the individual lacks knowledge or lacks the ability to present a rationale in writing.

Assessment of novice clinical judgment ability during actual patient care was the focus of another study. Transcriptions of verbal assessments recorded during actual postoperative patient care were used to compare cue collection between expert and novice nurses (Hoffman et al., 2009). Expert nurses (n = 4) were found to collect almost twice as many and a wider range of cues than novice nurses (n = 4). Importantly for safe, high-quality nursing care, expert nurses were also able to demonstrate an ability to cluster more cues together to identify patient problems. A significant limitation of this study was the small sample size. Nevertheless, the researchers acknowledged variability in decision-making situations that occurred during actual patient care encounters and suggested simulation as a means to reduce variability. By standardizing the patient scenarios, evaluation of both the quality of each cue collection and the decision made is possible.

Several qualitative studies have examined novice nurses experiences of making clinical judgments. Etheridge (2007) explored perceptions of new graduate nurses (n = 6) learning to make clinical judgments to ascertain what experiences might be most helpful. The findings revealed a process of "learning to think like a nurse" that is characterized by developing confidence, accepting responsibility, adapting to changing relationships with others, and the ability to think more critically within and about one's work (p. 25). The

most beneficial learning strategies were: exposure to a variety of patients; being guided by faculty and preceptors to problem solve rather than being given the answer; and opportunities for peer discussion of patient experiences.

The value of preceptor guidance was supported in another qualitative study exploring new graduate nurses' decision-making in a rural critical access hospital (Seright, 2011). Collaboration with co-workers was a major means of facilitating graduate nurses' decision-making despite the fact that they had access to a number of resources. In this grounded theory study, "sociocentric rationalizing" emerged as the basic social process, revealing how clinical knowledge in this setting was socially embedded. Guidance from more experienced nurses was used more often than policy manuals, decision trees, standing orders, textbooks, and in some cases internet resources.

In another study, new graduate nurses' (n = 6) experiences of making clinical decisions in critical care units over an 18 month period was examined (Wiles et al., 2013). Differing accounts of practice from study participants reflected varying points in the transition experience. With repeated patient exposure, new graduate nurses were able to call upon clinical experience to make decisions; this process strengthened new graduates' confidence. Prior to this time, a lack of confidence, self-doubt, and second guessing occurred. In two particular cases, the new graduate was paralyzed and unable to care for the patient. Supporting findings from earlier studies, participants in this study sought assistance from more experienced nurses, feared calling physicians, and experienced support from the preceptor. This support was reported to range from little support to continued mentorship after the orientation.

The evidence surrounding optimal educational interventions for improving nurses' clinical decision-making has been reported to be lacking (Thompson & Stapley, 2011). Four main problems were identified in this integrative review examining 24 studies. First, using critical thinking as an outcome to assess the efficacy of interventions is complicated by the range of assessment methods resulting in inconsistently positive results. Second, the lack of detail noted in reporting of interventions prevents replication and implementation. Third, the use of decision theory to underpin the studies was rare and finally, study quality was generally poor.

In an effort to explore the relationship between critical thinking and educational strategies that encourage clinical decision-making, a more recent study measured critical thinking dispositions of novice nurses in a residency program at three points during the program (Zori, Kohn, Gallo, & Friedman, 2013). The experimental group (n = 67) in this study received critical thinking education and a reflective journaling intervention. The control group (n = 53), also nurses in the residency program, received no specific education on critical thinking dispositions or reflective journaling exercise. The critical thinking scores of the control and experimental groups showed no significant differences within or between groups over time. The authors concluded that the findings may support the notion that critical thinking disposition may be inherent in personality and not significantly altered by participating in a nurse residency program or education on critical thinking.

Patient Deterioration

Clinical signs of patient deterioration, specifically changes in vital signs, oxygenation status and/or alteration in level of consciousness, may be used to denote

severity of illness and mortality (Goldhill et al., 1999; Roller et al., 1992). Warning signs of patient clinical deterioration often precede cardiac arrest (Goldhill & McNarry, 2004; Goldhill et al., 1999) with a median time of six hours (Winters et al., 2013). Unrecognized patient deterioration potentially progressing to cardiopulmonary arrest is a significant safety concern in hospitalized patients. On acute care units, the increased number of patients with complex health problems presents an increased risk of the occurrence of serious deterioration (Levett-Jones et al., 2010). Continuous monitoring technology is the primary means by which patient deterioration is detected in Intensive Care Units. Ongoing improvement in both the identification and management of patient deterioration on acute care units is evident in medical and nursing literature. Rapid response systems (RRS), supported by accrediting bodies and quality improvement organizations, have been widely implemented in hospitals across the United States as a strategy to improve management of deteriorating patients on acute care units (Winters et al., 2013).

Identification of Patient Deterioration

Nurses, at the point of care for extended periods of time, are most often the first persons presented with patient cues of clinical deterioration. Timely nurse identification of deteriorating patients is multifactorial. In hospitals that support good work environments, Aiken and colleagues (2011) identified a now well-known notion: lowering patient-to-nurse ratios in hospitals markedly improves patient outcomes. Moreover, a 10% increase in the proportion of nurses holding a baccalaureate degree was associated with a 5% decrease in the likelihood of failure to rescue in surgical patients (Aiken, Clarke, Cheung, Sloane, & Silber, 2003). However, signs and symptoms of

clinical deterioration may often be missed because of multiple factors; Winters et al. (2013) noted their concern regarding low sensitivity and fidelity of periodic assessments by staff at all levels.

Movement towards the Electronic Health Record (EHR) may provide support that aids in early detection of deteriorating patients. Automated scoring systems, based on continuous physiological monitoring, have been suggested as one strategy for early recognition of impending patient deterioration in non-Intensive Care Unit inpatients. Early warning scoring systems, known as the "afferent limb", of caring for patient deterioration are a mechanism by which team responses to patients are triggered.

A validated scoring system developed to identify patients at risk for subsequent deterioration is the Modified Early Warning Score [MEWS] (Subbe, Kruger, Rutherford, & Gemmel, 2001). A MEWS is calculated from systolic blood pressure, pulse rate, respiratory rate, temperature, and mental status and is used to identify patients at risk for cardiopulmonary arrest. The more abnormal the parameters become, the higher the MEWS score; a pre-defined score is used to alert the staff to call for help (Donohue & Endacott, 2010). Different systems have utilized a variety of clinical data to track and trigger early warnings of patient deterioration. In addition to vital signs and mental status, other data used to identify at risk patients in acute care settings are urine output, patient age, and body mass index (Jones, King, & Wilson, 2009; Kho et al., 2007). No one system has been shown to be superior in earlier recognition (Winters et al., 2013). Furthermore, ongoing training of the use of such track and trigger systems by staff with acknowledged expertise may increase the knowledge, skills, and confidence of nursing staff to detect and manage deteriorating patients (McDonnell et al., 2013).

Importantly, some have cautioned that continuous monitoring is not a substitute for adequate levels of trained staff members who are able to monitor patients in a manner not possible by current technology. Assessment of patients' mental status, their concerns and behavior provide essential data needed for making clinical judgments to initiate therapeutic responses (DeVita et al., 2010). Moreover, it is widely known that experienced clinicians have excellent ability to identify patient deterioration based on subtle signs and symptoms not easily captured electronically (Kho et al., 2007; McClish & Powell, 1989). To that end, novice nurses, still developing skills of assessment and organization are particularly susceptible to missing patient signs of deterioration (Clarke & Aiken, 2003). Ebright et al. (2004) suggest that in the case of novices, who often have difficulty identifying the most salient issue in patient care encounters, sustaining effective surveillance will require expertise to be available when the need arises. New graduate nurses' decision to escalate care and manage patient deterioration is influenced by having clinical support from nursing colleagues (Purling & King, 2012). Availability of clinical experts is essential to not only assist novices with identification of patient deterioration but also assist with management of the patient once deterioration is identified. Beginning nurses have had few practical experiences to manage rapidly changing situations and need coaching about which interventions are needed (Benner et al., 2009). For novices who often lack knowledge, confidence, and experience and who may perceive a lack of colleague support or negative unit culture may find management of patient deterioration equally challenging.

Management of Patient Deterioration

Rapid response systems (RRS), the "efferent limb", supported by health care systems' accrediting bodies and quality improvement organizations, have been widely implemented in hospitals across the United States as a strategy to improve management of deteriorating patients on acute care units. Winters et al. (2013) suggest that through escalation and triage that occurs during a RRS, optimal patient care may be delivered. Rapid response systems have been associated with reduced rates of cardiopulmonary arrests and mortality outside of intensive care units however, rates of calling RRS remain suboptimal (Winters et al., 2013). Jones et al. (2009) concluded that inexperience and limited theoretical knowledge of nursing staff inhibited nurses' effective use of a rapid response system known as the Medical Emergency Team (MET). Their conclusion was based on reviewed literature examining 15 primary research studies. Experienced nurses, confident in decision-making, were more likely to call the MET (Jones et al., 2009). For new graduate nurses, the lack of confidence and/or lack of experience are deterrents to the mindfulness and clinical reasoning required in complex situations (Ebright, 2010).

Identifying patient deterioration and managing patient hypotension, acute respiratory deterioration, and cardiopulmonary resuscitation were some of the complex situations that challenged new graduate nurses' competency (Hartigan, Murphy, Flynn, & Walshe, 2010). In this descriptive qualitative study examining the perspectives of experienced preceptors, the findings revealed that new graduate nurses often lack competence in assessment, communication, and technical skills to identify and manage changing patient conditions. The aim of this study was to inform nurse educators as to the realities of current practice so that curricular content updates may continue to

promote new graduate clinical judgment and decision-making competence. A limitation of this study is that an understanding of the experience of caring for deteriorating patients from nurse graduates' perspectives remains unknown.

The experience of 13 nurses caring for deteriorating patients in an acute care unit was described in one qualitative study (Gazarian, Henneman, & Chandler, 2010). More specifically, how these patients were identified as well as factors that influenced nurses' decision to interrupt adverse events was elucidated. Cues most often described to identify a patient whose clinical status was deteriorating included triggers from early warning scoring systems *and* knowing the patient and contextual factors of the patient situation (p. 31). Two factors that assisted nurses to interrupt deterioration were previous experience in prearrest situation and access to knowledge resources. Knowledge resources included knowledge related to having an understanding of the patient as an individual as well as knowing the patient's pathophysiologic condition in addition to the usual trajectory and severity of illness. Nurses' decision-making perspectives gleaned from this study provide further understanding of the importance of individual patient context combined with physiologic indicators to determine patient deterioration. Although this study included some new graduate nurses, nurse participants' experience ranged from 3 months to 29 years with an average of 8.5 years. As a result, such findings may not transfer to clinical decision-making in novice nurses.

In one hermeneutic inquiry the experience of novice nurses who participated in a resuscitation event was examined. The event was viewed as stressful and descriptions revealed a lack of emotional preparedness and support received from others only when the novice nurse appeared visibly upset as a result of the experience (J. Ranse & Arbon,

2008). This study was conducted in a hospital with a graduate nurse transition program and the researchers acknowledged that the strong emotional response diminished with increased exposure to resuscitation events. A limitation of this study was the use of focus groups as the only method of data collection which may have diluted individual descriptions of the experience.

Strategies to Improve Care of Deteriorating Patients

Inter-professional team learning and simulation are two strategies that have been identified to promote improved teamwork and communication skills in nursing and medical students. In a study with a sample of 127 nurses and medical students, researchers incorporated communication strategies adapted from Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS). In this study, a three hour learning session using simulation scenarios of patients with physiological deterioration was evaluated. Significant improvements in self-confidence in inter-professional communication and perception in inter-professional learning were reported (Liaw, Zhou, Lau, Siau, & Chan, 2014).

In another study in rural Australia, medical-surgical registered nurses (n = 35) participated in deteriorating patient simulated scenarios (Cooper et al., 2010). Knowledge of deterioration, as measured in a multiple choice exam, was significantly higher for nurses who had recently completed Advanced Life Support (ALS), Basic Life Support (BLS), or other emergency training course; however, increased knowledge did not translate into better scenario performance. Moreover, nurses' skill performance during the simulated patient scenario significantly declined as the patient deteriorated despite more obvious deterioration cues. It was concluded that increasing participant

anxiety as the patient deteriorated in the scenario was a major contributing factor for the declining performance. Findings from this study are of significance in that 75% of the participants (n = 35) who had been in nursing for more than three years still lacked the skills to appropriately manage patient deterioration. In another study with a similar population of experience nurses, in which 75% of the sample had more than three years experience, patient actors were used to examine how nurses respond to deteriorating statuses such as chest pain and respiratory distress (Endacott et al., 2012). Lack of history taking and a lack of reassessment leading to incorrect actions were common patterns of behavior in these scenarios. Although the findings from these two studies are important, they may not transfer to the nurse resident population because the studies utilized experienced medical-surgical nurses in another country in which the healthcare system and its related resources as well as the educational preparation of the nurses might differ.

One aspect of managing a deteriorating patient is the ability of the nurse to clearly communicate findings to other members of the health care team. Effective communication among health care professionals is a well-known patient safety strategy to improve outcomes and avoid errors. Using standardized communication, SBAR (situation, background, assessment, recommendation), to communicate with physicians in the case of deteriorating patients increased nurse perceptions of effective communication and collaboration and reduced unexpected hospital deaths (De Meester, Verspuy, Monsieurs, & Van Bogaert, 2013). After an SBAR nurse (n = 425) training intervention, De Meester et al. (2013) reviewed records of those patients experiencing serious adverse events (n = 126) for SBAR elements that occurred in the 48 hour period before the event

and compared this to records of deteriorating patients (n = 81) hospitalized prior to the SBAR intervention. The researchers found a statistical significant increase in SBAR elements post intervention ($p < .001$) as well as an increase in number of unplanned ICU admissions ($p < .001$). De Meester et al. (2013) concluded that SBAR training better prepared nurses to formulate a recommendation based on a solid assessment prior to calling a physician. Preparation using SBAR enhanced nurse confidence and the ability to convince the physician about the severity of the situation. A limitation of this study was that no actual nurse-physician conversations were recorded to verify the use of SBAR. Despite this, the authors acknowledged their study as making a contribution to the debate on afferent limb failure with respect to deteriorating patients. Better inter-professional communication and collaboration achieved through SBAR use may address "lack of appreciation of urgency" or "lack of calling for assistance". How these findings might translate to novice nurses is uncertain; the sample size in this study consisted of nurses with a mean experience of fifteen years. For example, novice nurses, who are devoid of experience and confidence, consistently acknowledge fear of calling physicians and most often consult with experienced nurses prior to placing a call (Wiles et al., 2013).

Summary and Critique of Literature Reviewed

The literature reviewed described role transition for new graduate nurses as a critical period requiring support. Kramer's (1974) *Reality Shock* and Duchscher's (2009) *Transition Shock* theories provide traditional and contemporary views of this process. Clinical decision-making in nursing practice is complex; the importance of nurse residency programs and by extension preceptorships to facilitate the development of decision-making skills related to clinical judgment and performance has been established.

Despite this, caring for deteriorating patients remains a difficulty throughout the first year of practice. The relationship of the impact of caring for a deteriorating patient on nurse resident role adaptation and successful transition has not been fully explored.

There is limited published research on how new graduates respond to the encounter of caring for deteriorating patients. New graduates' ability to identify and manage a deteriorating patient has been explored from the perspective of experienced nurse preceptors (Hartigan et al., 2010). According to experienced nurse participants in this descriptive qualitative study, new graduate nurses were not able to demonstrate competency in the ability to make effective observations, conduct a systematic patient assessment, recognize patient deterioration, or prioritize care. The findings from this study in which graduate nurse deficiencies in clinical judgment and decision-making were highlighted is further support of earlier studies (del Bueno, 2005; Fero et al., 2009; Hoffman et al., 2009). Approaching this topic from the perspective of the nurse residents may help to reveal an understanding of the specific factors related to their competency assessment, prioritization, and communication during clinical encounters with deteriorating patients.

Little is known about how nurse residents respond to patient encounters of clinical deterioration. Furthermore, no studies exploring experiences of nurse graduates in recognizing and responding to a deteriorating patient in isolation were found in a recent integrative review (Purling & King, 2012). This is remarkable given the fact that the nurse, as the team member with the most patient contact, is often the first person presented with patient cues of clinical deterioration. This critical role is increasingly falling to new graduate nurses in which high stakes decision-making is vital when

declining patient status is suspected. It has been reported that knowledge and experience are important factors affecting nurses' ability to detect and respond to cues of patient deterioration (Liaw et al., 2011) yet the literature supports that new graduate nurses are expected to respond to patient deterioration as frequently *and* competently as more experienced nurses (Purling & King, 2012). As a result of increases in patient complexity, today's new graduate nurse is increasingly faced with the challenge of identifying and responding to the warning signs of clinical deterioration than in the past.

The literature supports that new graduate nurses are challenged when collecting cues need to make inferences about patient status (del Bueno, 2005) and it has also been reported that this ability varies during the first year (Wiles et al., 2013). Clearly, there is a need to explore this experience from the perspective of nurse residents. Several studies reviewed have highlighted the difficulty encountered by novice nurses as they care for increasingly complex, often ambiguous, and rapidly changing patient encounters (Fink et al., 2008; Gazarian et al., 2010; J. Ranse & Arbon, 2008). The studies are limited with respect to two aspects. First, in these investigations examining the experience of caring for a deteriorating patient, many of the study samples did not include exclusively novice nurses. Second, in studies that did examine novice nurses' perspectives, the focus of the study did not specifically examine experiences during the care of a deteriorating patient. Little is known about nurse residents' perspective during the residency experience. Moreover, the personal and varied meanings associated with the experience of caring for a deteriorating patient by nurse residents is not fully understood. The unique needs of nurse residents with respect to the identification and management of cues of patient deterioration warrants examination. Findings from this study may be used to improve

nurse residency programs and by extension patient care for the future. The findings of this proposed research may add to current nurse residency program outcome criteria to establish best practices. In order to tailor nurse residency program curricula to better assist the novice nurse through this experience it is essential to understand nurse residents' perspective surrounding a potentially emotional and stressful experience.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the methodology and methods that was used to address the study's purpose: to describe the meaning of taking care of a deteriorating patient by a nurse resident. A phenomenological qualitative research design grounded in hermeneutic philosophy and related methods for data collection and analysis are described. Study definitions, limitations, and protection of human subjects are presented.

Phenomenology

Qualitative inquiry is an important tradition for exploring the unique nature of human experiences across various contexts. The rich philosophical insights of scholars have kept alive the value of qualitative approaches to/for nursing research. Qualitative inquiry is consistent with nursing's postmodern worldview supporting multiple realities and an acknowledgment of various sources of knowledge. Phenomenology is the systematic study of phenomena. An interpretive phenomenological approach was used to explore nurse residents' words and meaning given to the experience of caring for deteriorating patients. An exploration of the phenomenon of caring for deteriorating patients from a qualitative perspective may complement information gathered quantitatively on nurse residency evaluative outcomes.

Research Design

Phenomenology is both a philosophy and a research approach. Phenomenology attempts to answer questions about experiences in life and understand what meaning they have for individuals. Therefore, the goal of phenomenology is to understand meaning

through interpretation, based in an individual's situated context. By explicating the common experience of nurse residents as they care for deteriorating patients and the shared meanings of such an experience, a new understanding may be revealed. This study used a hermeneutic phenomenological research methodology based on the philosophical contributions of Martin Heidegger (1889-1976) and Hans-Georg Gadamer (1900-2002).

The focus of hermeneutic phenomenology is on understanding the meaning of being human. Hermeneutic phenomenology maintains that consciousness is not separate from an already existing world. As a student of Edmund Husserl (1859-1939), the founder of phenomenology, Heidegger countered the notion that there are essential structures of human experience that lie outside human engagement. Husserl's work was grounded in the dominant traditional logic of the time and was associated with objectivity and neutrality (Fleming, Gaidys, & Robb, 2003). To that end, Husserl asserted that in order to understand the true nature of a phenomenon, and build a reliable foundation of knowledge, presuppositions were to be eliminated. This could be achieved by "bracketing" assumptions in a procedure called epoche. In contrast, Heidegger believed individuals are inseparable from the world in which they live and in that experience, humans find significance and meaning in their worlds.

In contrast to Husserl's epistemological focus of knowing man, Heidegger's interest was ontological: What is being? The goal of Heidegger's interpretive phenomenology, termed hermeneutic, is understanding. Heidegger argued that one's existence can only be known in relationship with others and other objects (Fleming et al., 2003). Dasein, the human way of being, according to Heidegger arises from our

everyday experiences as one with an inseparable world (Heidegger, 1962). However, he maintained that what it means to be human is often concealed within our daily lives. Being in the world as a nurse resident involves sharing existence with a deteriorating patient, family, and other staff on the unit. Because such an experience is common to nurses working on acute and critical care units, in its "everydayness" (Guignon, 1993), the meaning of the experience to nurses may be hidden. Examining narratives about day to day experiences, one may begin to understand what this experience means to nurse residents.

Heideggerian phenomenology is distinct in the notion of pre-understanding. Individuals come to a situation with a background of historical influence, social practices, and cultural beliefs. According to Heidegger, this background should not be suspended, but used to understand an individual's experience. Therefore, the researcher is an active participant in the interpretive process, and demonstrates a convergence of participants' perspectives with the researcher's experiences in the interpretation. Understanding is not conceived as a way of knowing, but as a way of being in the world (Heidegger, 1962). Co-constitution represents the blending of participant data and experience of the researcher. In this way, a new understanding of a phenomenon is revealed.

The philosophy of Hans-Georg Gadamer enriches Heideggerian assumptions and informs this study. Gadamer (1975/2004) proposed that understanding is a historical, dialectic, and linguistic event. Consistent with Heidegger, Gadamer believed individuals come to know through interaction and engagement. Moreover, his philosophy emphasizes historical awareness and its value as an essential component for knowledge and understanding (Fleming et al., 2003). Gadamer used the metaphor, *fusion of horizons*

to describe the process of understanding. Culture, language, history, and specific situation of an individual affect his/her perception and the meaning it holds for them. Fusion of an individual's history with his/her present being results in interpretation. According to Gadamer (1976), one's horizon, or range of view, is temporal, dynamic, and is all inclusive.

In Gadamerian hermeneutics, historical awareness is represented as prejudgments; these represent more than judgments but rather the whole of an experience. Therefore, prejudice is a major tenet in Gadamerian hermeneutics, without which interpretation and understanding is not possible. Furthermore, in addition to the subject existing in historical time, the interpreter is also one with the world; this will influence his/her interpretation. In a hermeneutic inquiry, prejudices of the subject and interpreter are positive contributions to an understanding and are not bracketed (Gadamer, 1975/2004).

Gadamer places strong emphasis on language that extends Heidegger's existential ontological exploration of understanding. According to Gadamer, language and history furnish the shared sphere in the hermeneutic circle (Koch, 1996, p. 176). The hermeneutic circle, a metaphor taken from Heidegger, describes the interaction of researchers with participant narratives; interpretation of data occurs through the hermeneutic circle. It is through conversation and language that understanding occurs. In this inquiry, attention to language in participant text may support a deeper understanding of the phenomenon.

The decision to choose Gadamerian hermeneutics as a framework to guide this study began with parallel assumptions of the proposed study and hermeneutic perspective. A fundamental assumption of this study was that nurse residents have

unique concerns as they care for patients with deteriorating statuses. Their concerns emerge from a unique perspective of the world that is influenced by their background such as previous experiences with actual and simulated deteriorating patients; cultural norms of their residency program and more specifically, the clinical unit within which they work; as well as other past experiences before they became a nurse resident. Consistent with a hermeneutic perspective, understanding of experiences may only occur within the context of one's historicality and the social context of the experience (Draucker, 1999). A second factor influencing selection of Gadamerian philosophy was the notion of *fusion of horizons.* Using this perspective, the history of both the subject and interpreter are fused with their present beings. Each specific situation of an individual affects his/her perception and the meaning it holds for them. Finally, by using a hermeneutic approach to understand others' experiences and the meaning it has, allows one to become more human (van Manen, 1990).

Setting and Sample

The setting for the interview varied as it was determined by each participant. Participants were interviewed at times and locations that were convenient for them and the researcher. Interview settings for this study included a private office on the researcher's campus and a study room with a public library.

A purposive sample included nurses who were currently employed in a residency program or had completed their residency within the past year and who had the experience of caring for a patient whose clinical status was deteriorating during any point during their residency year. In this study, a deteriorating patient was defined as a hospitalized adult patient demonstrating instability of physiologic or disease status.

Specifically, changes in vital signs, oxygenation status and/or alteration in level of consciousness, were used to denote severity of illness and mortality (Goldhill et al., 1999; Roller et al., 1992).

Recruitment

Recruitment for the study commenced following Institutional Review Board (IRB) approval from the researcher's university and the IRB at two hospitals known to have residency programs. The volunteer sample was recruited through the use of flyers that were distributed in two ways. First, flyers were emailed to member mailing lists of local chapters of Sigma Theta Tau International Honor Society. Second, flyers were posted in two hospitals in a suburban county in the Mid-Atlantic area of the United States known to have nurse residency programs. This recruitment method was selected in order to obtain a representative sample of nurse residents from different hospital settings such as community hospitals and teaching hospitals. The study's purpose, inclusion criteria, time commitment required for audio-recorded interview, $20 gift card for participating, and the researcher's contact information was included in the flyer (see Appendix B). The inclusion of the term "deteriorating patients" in the advertisement flyer was not considered problematic regarding possible bias because this terminology is routinely used in the nursing literature and this is the subset of nurse resident experiences that is being studied. Interested participants were asked to contact the researcher via her contact information provided on the flyer.

Interview Guide Development

Theoretical and research-based literature, in addition to the researcher's clinical experience provided the basis for the development of interview questions. Furthermore,

the completed interview guide was reviewed by two expert nurse resident preceptors and revised accordingly prior to a final review by this researcher's dissertation chairperson.

Tanner's Clinical Judgment Model (2006) informed the questions relating to nurse residents' experiences of caring for deteriorating patients. Tanner's model provides language that describes "how nurses think" when they are involved in complex patient care situations requiring decision-making (p. 209). The interview guide explores how the four processes of clinical judgment: noticing, interpreting, responding, and reflecting unfold during nurse residents' experience of caring for a deteriorating patient.

Questions relating to the nurse residency program were based on Goode et al.'s (2013) ten-year research outcomes on nurse residency programs. Despite nurse residents' perceived improvements in confidence and competence, they persistently rated code and emergency response situations among the top three skills with which they remain uncomfortable (Goode et al., 2013). In Goode's study, technical skills such as ventilator care, drawing blood, starting intravenous lines, in addition to prioritization ability remained a difficulty throughout the first year. These are necessary skills used during the care of a deteriorating patient. Further, nurse residency questions emerged from a hermeneutic inquiry examining nurse residents' experience during a resuscitation event (J. Ranse & Arbon, 2008). The findings revealed four themes: *needing to decide, having to act, feeling connected,* and *being supported.* Nurse residents described having to make clinical decisions during the resuscitation event without having the opportunity to consult with others or text references. This type of patient encounter, one in which they had no experience, created stress and in some cases resulted in poor decision-making. Moreover, participant descriptions revealed a lack of emotional preparedness; support was provided

from others only when the novice nurse appeared visibly upset as a result of the experience (J. Ranse & Arbon, 2008). These aspects were considered in the questions addressing the most difficult aspect of the experience.

Further information for questions emerged from the literature on preceptor nurse resident relationship. Nurse resident transition to practice is impacted by the quality of the relationship. Questions related to this topic were based on Diekelmann and Diekelmann (2009) Concernful Practices framework and Duchscher's (2008) Theory of Transition Shock. Concernful Practices (CP), based in Heideggerian hermeneutic phenomenology, describe the ways individuals relate to one another and form the foundation of relationships. Preceptor behaviors such as presencing, gathering, caring, listening, interpreting, inviting, and questioning may be presented positively or negatively to the novice nurse. In support of Diekelmann and Diekelmann's work, Moore and Cagle (2012) used the CPs to examine the phenomenon of being a new nurse during an internship program. The findings from Moore and Cagle's study revealed that novices highly valued the CP of presencing: attending and being open. A supportive environment with a preceptor who pushed but also mentored these novices to become competent nurses was most important. Moore and Cagle (2012) concluded that engaged openness may be an essential prerequisite for an effective new nurse-preceptor relationship (p. 561). Duchscher's (2009) theory of *Transition Shock* further supports the importance of a supportive environment in which a critical forecaster of the transition experience was the graduate nurse's relationship with colleagues.

Procedure and Data Collection

Once the respondents to the flyers contacted the researcher via email with their contact information, the researcher telephoned the interested participant to review the study's purpose, the required time commitment, and provide information with respect to the $20 gift card as appreciation for participation. Interested participants were emailed an informed consent form for their review prior to the interview. One and one-half hours was the proposed time frame required to compete consent and demographic forms and conduct a one hour, semi-structured audio-recorded interview. During the initial phone call, the researcher was able to further determine if the prospective participant met the study inclusion criteria. A mutually convenient time and location was arranged with eligible nurse resident participants. This study used in-depth, one-on-one interviews using a semi-structured interview guide. At the start of the interview process, information regarding risks, benefits, and confidentiality were provided. Participants were asked to complete the written informed consent prior to data collection and reminded that they may withdraw from the study at any time without penalty or prejudice in any way. Demographic data (see Appendix A) were collected prior to the start of the interview. Interviews lasted from forty-five minutes to one hour depending on the time participants required to share their narratives. Informal observations of gestures and body language were noted during the face-to-face interview to complement narrative data. The researcher documented observations and key impressions of the interview process following each interview. A journal was maintained throughout the study. The journal was used for researcher notes about emerging themes, methodological processes, and to describe beliefs and personal experiences and how they contribute to the

interpretation. The notes helped to maintain rigor needed to be in accordance with the actual lived experience.

The researcher, as an instrument in qualitative inquiry, used a semi-structured interview guide (see Appendix C) to facilitate in-depth conversations to discover the experience of nurse participants. In-depth interviews are consistent with phenomenological inquiry in which feelings and experiences are the focus. Creating a conversational milieu is consistent with hermeneutic inquiry:

> in dialogue spoken language – in the process of question and answer, giving and taking, talking as cross purposes and seeing each other's point – performs the communication of meaning that, with respect to the written tradition, is the task of hermeneutics. Hence it is more than a metaphor; it is a memory of what originally was the case, to describe the task of hermeneutics as entering into dialogue with the text (Gadamer, 1975/2004, p. 362).

At the conclusion of the interview, the participant was thanked for his/her time with a $20 gift card.

Protection of Human Subjects

Approval to conduct this study was obtained from the researcher's university Institutional Review Board (IRB). To ensure protection of the participants in this study the principles of respect for autonomy, beneficence, and justice were used as the basis for ethical research guidelines. Prior to data collection, confidentiality, freedom to withdraw, risks, and benefits of the study were discussed with each participant. If the nurse resident agreed to participate, she/he was asked to sign a consent form which included statements informing her/him of the rights and permission to audio-record the interview (Appendix

D). Statements were made informing the participant of no direct benefit as a result of participating but that the findings may serve to benefit others through the advancement of disciplinary knowledge. Participants were advised that confidentiality was protected by the use of pseudonym to protect their identity. Pseudonyms were used on all audio-recording labels, field notes, and transcription documents. To further safeguard confidentiality, participants were informed that all conversations were to be kept private and that interview audio-recordings were saved to a device with a security number known only to the researcher and that transcription documents were to be kept in a locked cabinet in the researcher's office. The participant was informed that the study may be published however no identifying data were to be used.

As newly employed nurses, special attention to the recruitment process was provided to avoid coercion in this population. This was accomplished by the researcher's statements emphasizing the voluntary nature of involvement in the study in addition to assurances of confidentiality. Furthermore, while there are no known risks to participation, in light of the fact that the first year of practice is known to be a stressful time for new graduate nurses, there is a possibility that some interview questions may cause participants distress. The researcher safeguarded against undue stress related to the interview process by remaining attentive to signs of emotional stress during the interview as well as providing counselor contact information at the conclusion of the interview if necessary and at their request.

Data Analysis

The demographic data collected was used to describe the participants. The verbatim transcripts were used as qualitative data; transcription of the recorded

interviews was performed by the researcher immediately following each interview. There are several interpretive authors that provide methods for data analysis. In this study, a modification of Diekelmann's (1992) process of data analysis was used to interpret participant narratives/interviews. This method was chosen as it is consistent with hermeneutic phenomenology. A minor modification of the approach was necessary as Diekelmann advocates a group approach to data analysis to control bias. Much research utilizing this method has been undertaken by one researcher. The researcher's dissertation chair served as a means of providing oversight for this process.

Data analysis, in keeping with a modification of Diekelmann's method, began with a reading of each interview text in entirety to reflect upon the content and obtain an overall understanding. Second, in the margin of each individual transcript document, descriptive key phrases were identified. Following this, a summary of key phrases and possible themes was developed. After the first two interviews were transcribed verbatim by the researcher, a meeting with the faculty advisor took place. The purpose of this meeting was twofold; first to ensure that interview questions elicited in-depth responses and second, to begin team analyses to review and discuss key phrases and possible themes. Following this meeting, key phrases and possible themes for each narrative were transferred to a separate Word document.

The researcher continuously worked with the faculty advisor to further discuss identified themes, and eventually constitutive patterns. Theme and pattern identification and interpretation was undertaken by the researcher by comparing written summaries of key phrases with each participant transcript. Rereading and returning to text for clarification or to resolve discrepancies was performed independently by the researcher

and in collaboration with the faculty advisor. This circuitous process was ongoing until the identified themes reflected participant shared practices and common meanings. Common meanings occurred within each interview text and across interviews. The interview process was terminated when redundancy in themes was noted.

Themes were compared and contrasted until constitutive patterns emerged thus, linking the themes. Constitutive pattern is present in all interviews and represents the highest level of interpretive analysis (Diekelmann, 1992). The research report was written explaining the themes and patterns supported by exemplars taken from the text. In this way, common meanings of nurse resident participants enhanced understanding of this situation as it is lived.

Standards of Rigor

Standards of rigor in qualitative methods (Lincoln & Guba, 1985) were attended to by careful consideration of credibility, transferability, dependability, and confirmability. To ensure credibility, adequate time spent with each participant was followed by intense engagement with the raw data to allow analysis and synthesis to drive the converging conversation. Field notes and a reflective journal enriched transcribed interviews. Dependability and confirmability were demonstrated through presentation of movement from verbatim phrases to themes in an audit trail thus supporting stepwise replication of analysis. This was supported by inclusion of verbatim quotation described in the audit trail. Evidence of transferability was in the description of the sample and setting and the provision of weighty descriptions important for making application to other situations.

Definitions of Terms

Deteriorating patient: In this study, a deteriorating patient is a hospitalized patient demonstrating instability of physiologic or disease status. Specifically, changes in vital signs, oxygenation status and/or alteration in level of consciousness, are used to denote severity of illness and mortality (Goldhill et al., 1999; Roller et al., 1992).

Nurse resident: A registered nurses who works on an adult acute or critical care unit with less than one year of experience and is hired into a post-graduate nurse residency program.

Preceptor: An experienced nurse assigned to mentor the nurse resident on the clinical unit.

Chapter Summary

In this chapter, the methodology used for the study on nurse residents' lived experience of caring for a deteriorating patient was described. Phenomenology tradition and hermeneutic philosophy were reviewed. Inclusion criteria for the sample, the setting, and the data collection procedure were described. The process of data analysis described by Diekelmann (1992) was outlined. Strategies to ensure protection of the study participants were described in detail. Study definitions were presented.

CHAPTER IV
FINDINGS

The purpose of this chapter is to describe the results of a study examining the experience of caring for a patient who is deteriorating from the perspective of nurse residents who have lived it. Hermeneutic phenomenology as a methodology was used to meet the study's purpose. At the center of this Heideggerian hermeneutic inquiry was the question: What does it mean to be a nurse resident caring for a patient with a deteriorating status during the residency year? Hermeneutic analysis was used to identify study themes across narratives of eight nurse residents using the method described by Diekelmann (1992).

The chapter begins with a presentation of Heideggerian and Gadamerian phenomenological tenets that guided the interpretation of the interviews. An overview of the participants is followed by a brief description of data collection methods used as consistent with Chapter III and a section describing the actual data analysis and interpretation methods follows. Next the study's results are described using the three main constitutive patterns that were interpreted as the meaning of *The Journey from Uncertainty to Salient Being.* Each pattern is comprised of themes from participants' descriptions about their experiences

The Study's Underlying Philosophical Perspective

The focus of hermeneutic phenomenology is on understanding the meaning of being human. Hermeneutic phenomenology maintains that consciousness is not separate from an already existing world. Heidegger believed individuals are inseparable from the world in which they live and in that experience, humans find significance and meaning in their worlds. In contrast to Husserl's epistemological focus of knowing man,

Heidegger's interest was ontological: What is being? The goal of Heidegger's interpretive phenomenology, termed hermeneutic, is understanding. Heidegger argued that one's existence can only be known in relationship with others and other objects (Fleming et al., 2003). Dasein, the human way of being, according to Heidegger arises from our everyday experiences as one with an inseparable world (Heidegger, 1962).

Heideggerian phenomenology is distinct in the notion of pre-understanding. Individuals come to a situation with a background of historical influence, social practices, and cultural beliefs. According to Heidegger, this background should not be suspended but used to understand an individual's experience. Therefore, the researcher is an active participant in the interpretive process, and demonstrates a convergence of participants' perspectives with the researcher's experiences in the interpretation. Understanding is not conceived as a way of knowing, but as a way of being in the world (Heidegger, 1962). Co-constitution represents the blending of participant data and experience of the researcher. In this way, a new understanding of a phenomenon is revealed.

The philosophy of Hans-Georg Gadamer (1900-2002) enriches Heideggerian assumptions and informs this study. Gadamer (1975/2004) proposed that understanding is a historical, dialectic, and linguistic event. Consistent with Heidegger, Gadamer believed individuals come to know through interaction and engagement. Moreover, his philosophy emphasizes historical awareness and its value as an essential component for knowledge and understanding (Fleming et al., 2003). Gadamer used the metaphor, *fusion of horizons* to describe the process of understanding. Culture, language, history, and specific situation of an individual affect his/her perception and the meaning it holds for them. Fusion of an individual's history with his/her present being results in

interpretation. According to Gadamer (1976), one's horizon, or range of view, is temporal, dynamic, and is all inclusive.

In Gadamerian hermeneutics, historical awareness is represented as prejudgments; these represent more than judgments but rather the whole of an experience. Therefore, prejudice is a major tenet in Gadamerian hermeneutics, without which interpretation and understanding is not possible. Furthermore, in addition to the subject existing in historical time, the interpreter is also one with the world; this will influence his/her interpretation. In a hermeneutic inquiry, prejudices of the subject and interpreter are positive contributions to an understanding and are not bracketed (Gadamer, 1975/2004).

Description of Participants

Demographic data were collected about the nurse and their nurse residency program at the beginning of each of the eight interviews. The volunteer sample included three male and five female bachelor's prepared nurses who were currently in or had completed a residency program within the past year. They ranged in age from 22 to 54 years. Six of the participants had additional clinical experiences outside of their undergraduate nursing program in the capacity as student nurse intern, nursing assistant or medical technician. At the time of the interviews, three participants were currently in the residency program while the other five had completed the program within the past year. All participants were still employed full-time at the hospital in which their residency program took place. Participant work environments were acute care, intensive care, and the emergency department in four hospitals ranging from small community hospitals to large teaching hospitals in two counties in a mid-Atlantic state. Two of the hospitals held American Nurses Credentialing Center (ANCC) Magnet Recognition and

another hospital's nurse residency program was currently an accredited program from the Commission on Collegiate Nursing Education (CCNE).

Consistent with nursing literature, participants' nurse residency programs varied with respect to length of direct preceptorship and number and type of learning activities. In this sample direct preceptorship varied from three to five months. Five of the participants related that their residency program had monthly education days for the duration of the 12 month residency program. Three participants related that their residency program did not have didactic education sessions after the first three to four months of their residency.

Table 1

Demographic Data

Participant	Duration of Direct Preceptorship	Additional Clinical Experiences	Duration of Residency Education Sessions	Residency Experience at Interview
1	5 months	Student nurse intern- 3 months	3 months	12 months
2	5 months	Emergency medical technician 5 years	12 months	10 months
3	4 months	Student nurse intern- 3 months	4 months	Completed NRP 1 month ago
4	4 months	Nursing Assistant-3 years	12 months	3 months
5	4 months	Student nurse intern - 3 months	12 months	Completed NRP 8 months ago
6	3 months	None	12 months	Completed NRP 1 year ago
7	5 months	None	12 months	Completed NRP 1 month ago
8	4 months	EMT - 20 years	4 months	Completed NRP 1 month ago

Overview of Recruiting and Data Collection

The recruitment process using flyers occurred as outlined in Chapter III. Institutional Review Board (IRB) approval from the researcher's university was granted in June of 2014. Recruitment flyers were emailed to member mailing lists of local chapters of Sigma Theta Tau International Honor Society and posted in two hospitals known to have nurse residency programs in July 2014. Study interviews were conducted from mid-July through October at which time theme redundancy was noted. Redundancy was achieved when the researcher saw common themes that repetitively emerged from the participant interviews. Six of the participants were interviewed in study rooms at

public libraries near their home. A private conference room on the researcher's campus, upon request, was used for two interviews.

Demographic data (see Appendix A) were collected prior to the start of the interview. Using a semi-structured guide (see Appendix C), one-on-one interview lengths varied from forty-five minutes to one hour depending on the time participants required to share their narratives. Probe questions were used throughout the interview to allow for more in-depth responses. At the completion of two of the interviews, participants related that the interview was helpful for them to process a difficult year. The researcher documented observations and key impressions of the interview process following each interview.

Steps in Analysis of Interviews

Interviews were transcribed verbatim by the researcher immediately following each session. Data analysis, in keeping with Diekelmann's (1992) method, began with a reading of each interview text in entirety to reflect upon the content and obtain an overall understanding. Second, in the margin of each individual transcript document, descriptive key phrases were identified. Following this, a summary of key phrases and possible themes was developed. After the first two interviews were transcribed by the researcher, a meeting with the faculty advisor took place. The purpose of this meeting was twofold; first to ensure that interview questions elicited in-depth responses and second, to begin analyses to review and discuss key phrases and possible themes. Key phrases and possible themes for each narrative were transferred to a separate Microsoft Word document. Notes were organized using the format: description of the encounter with a deteriorating patient (how the participant felt, the most difficult aspect of experience,

support received during the experience), description of nurse residency program (expectations, preceptor, and resources) and outcome/meaning of these experiences.

The researcher continuously worked with the faculty advisor to further discuss identified themes, and eventually constitutive patterns. Theme and pattern identification and interpretation, relied on Heidegger's tenets. The researcher compared written summaries of key phrases with each participant's transcript. Rereading and returning to text for clarification or to resolve discrepancies was performed independently by the researcher and in collaboration with the faculty advisor. This circuitous process was ongoing until the identified themes reflected participant shared practices and common meanings. Common meanings occurred within each interview text and across interviews. The interview process was terminated when redundancy in themes was noted. Themes organized the data from all of the interviews so that a vivid, detailed picture of how nurse residents experience caring for deteriorating patients emerged. It is through hermeneutics that shared experiences and common meanings hidden in the "everydayness" of the lived experience are illuminated.

Themes were compared and contrasted until constitutive patterns emerged thus, linking the themes. Constitutive patterns, the highest level of hermeneutic analysis, are present in all of the interviews and express the relationship of the themes. The research report was written explaining the themes and patterns supported by exemplars taken from the text. In this way, common meanings of nurse resident participants enhanced understanding of this situation as it is lived. Interpretation of the themes revealed three patterns.

The researcher maintained a journal throughout the study to document notes about emerging themes, methodological processes and to describe beliefs and personal experiences and how they contribute to the interpretation. This is necessary to maintain rigor needed to be in accordance with the actual lived experience. Demonstrating a convergence of researcher understanding with participant narratives and presenting the findings informed by the writings of Heidegger enriches phenomenological findings (Draucker, 1999). The researcher's personal philosophy is presented below.

Personal Philosophical Perspective's Role in Interpretation

In order to fulfill the role as active participant in the interpretive process, careful reflection, on the part of the researcher, was necessary. Self-reflection affords the possibility of convergence of participant-generated data with this researcher's presuppositions during the data analysis period. Prior to data collection, the researcher reflected, in writing, on several experiences and the meaning these experiences hold. Bracketing these experiences was not necessary as this would be counterintuitive to being in the world as described by Heidegger. Heideggerian phenomenology is distinct in the notion of pre-understanding. Individuals come to a situation with a background of historical influence, social practices, and cultural beliefs. According to Heidegger, this background should not be suspended, but used to understand an individual's experience. Understanding is not conceived as a way of knowing, but as a way of being in the world (Heidegger, 1962). Co-constitution represents the blending of participant data and experience of the researcher. To that end, this researcher's background, reflective journal data, and selected literature ultimately influenced the analysis of the narratives. Furthermore, the reflective process served as an important reminder for this researcher:

Experiences are unique, thus the interpretation of participant narratives may not fully capture the experience as it is lived.

The researcher began by reflecting on this researcher's experience with the phenomenon: As a novice nurse, 30 years ago, I vividly recall an evening shift as I encountered a patient with a deteriorating status. A feeling of desperation occurred as I became aware of the patient's deterioration, my inability to remedy the situation, and resulting feelings of incompetence. A sense of "not knowing" was one that I encountered often during that first year; however it was during this type of situation in which this was magnified.

This researcher's current role as a nursing faculty member in an undergraduate nursing program has also influenced my perspective. The complexity of nursing practice noted on an acute care unit, the same unit in which I began my practice, where I provide clinical supervision to senior nursing students is astounding. High patient acuity, technological advancements and the electronic health record appear to overwhelm even expert nurses.

Another experience that influences my historical awareness, and thus interpretation of the narratives, has been my role as nurse residency facilitator in a UHC/AACN nurse residency program. Through my interactions with nurse residents as facilitator during 'tales from the bedside' support group, I have come to a better understanding of reality shock, transition shock, and professional role development in the current health care setting. Over several years, I have listened to novice nurses' concerns, fears, *and* accomplishments. It is my belief that trained nurse preceptors are

pivotal in initiating transition however "it takes a village" to offer the ongoing support required of nurse residents to transition smoothly during their first year of practice.

It is my worldview that humans are inseparable from the worlds in which they live and that it is through language that existential ontological understanding may occur (Gadamer, 1975/2004; Heidegger, 1962). As a result of my direct and indirect experiences with the phenomenon, I entered into the hermeneutic circle with participant stories again and again, each time reflecting upon the phenomenon in a new way. Participant language, in the form of narrative text, and constitutive prejudices of this researcher, *a fusion of horizons,* afforded ontological exploration and understanding of the phenomenon.

Constitutive Patterns and Themes

The Journey from Uncertainty to Salient Being consisted of three major patterns that illuminated the ontological-existential meanings of participants' lived experiences of caring for a deteriorating patient during the residency year: *dwelling with uncertainty, building me up,* and *a new lifeline: salient being.* For the participants in this study, experiences in which they encountered patients with deteriorating conditions impacted them because they viewed these encounters to be "high stakes" for their patient but also for themselves. They viewed the patient's condition as life or death. They also viewed their performance during this experience as a measure of their own progress of professional development during the residency program. Each constitutive pattern that emerged connected the themes revealing a whole picture of these nurse residents' human existence during their residency year. The first constitutive pattern, *dwelling with uncertainty,* began early in their encounters with deteriorating patients. Dwelling within

Heidegger's writings (1971) represents how Being is made know. In other words, the manner in which man is on earth. Dwelling for these novice nurses meant experiencing uncertainty not only with respect to their knowledge and skill ability but, as a result of using this clinical situation to measure their own progress, uncertainty in their new role as a professional nurse. During this early phase, participants held a limited understanding of the nursing role evident in statements such as "fake it till you make it". They experienced uncertainty, fear, and anxiety related to their personal inadequacies in the face of clinical demands, described putting feelings on hold, and experienced anguish in reflection. From a Heideggerian perspective, *dwelling with uncertainty* served as a means of defining oneself and one's understanding of the world leaving participants to question if they would be able to perform in the role of nurse.

The second pattern, *building me up,* represented a phase in which these novices, advantaged by uncertainty and a sense of responsibility for their patients, worked towards acquiring essential elements for nursing practice. Anxiety related to personal inadequacies and sense of responsibility to their patients further propelled their learning. This phase represents nurse residents' formative experiences essential to their professional role development. Formation represents an internal process constituted by changes in identity and self-understanding that transforms how novices perceive and act in situations (Benner et al., 2010). Heidegger posits "building as dwelling unfolds into the building that cultivates growing things and the building that erects buildings" (Heidegger, 1971, p. 1). The participants in this study demonstrated a variety of ways to accomplish "a building" of essential nursing skills for practice. They began by focusing on building technical expertise but along this journey acquired relational and ethical skills

necessary for nursing practice, especially during the care of deteriorating patients. The evolution of this phase encompassed passively relying on others for knowledge, skills acquisition, and emotional support to a more active process as a result of such experiences in which the nature of nursing was revealed to them. *Building me up* represented moving from uncertainty toward the realm of self-reliance as participants progressed during the residency year.

The third pattern, *a new lifeline: salient being,* emerged as nurse residents discovered new capacity and perception from formative experiences during the NRP. Being is a major focus of Heidegger's work and viewed as the way in which humans exist in the world. The human way of being arises from our everyday experiences as one with an inseparable world; through experience, Being moves toward possibilities (Heidegger, 1962). Overtime, nurse residents came to an understanding of their experiences with deteriorating patients and of themselves as possibilities. Heidegger's concept of "possibility" as potentiality the 'that which can be', is used to clarify and expand his fundamental ontology of Dasein. Being in the world meant finding a lifeline within themselves. The participants in this study came to know themselves and not only their limitations but also their capabilities. *A new lifeline: salient being*, emerged as a change in participants' identity and increased self-understanding as a professional nurse. Through these experiences, in which they experienced increasing clarity of situational aspects, they also learned what was important and unimportant about themselves. This pattern represents a needed change as they moved forward in their professional development.

Each pattern and its related themes have been separated for the purpose of clarity (see Table 2). However it should be noted that the themes and experiences were not linear and for example an individual described experiencing two patterns simultaneously. As a whole, these patterns form a new understanding of what it means to be a nurse resident and encounter a patient with a deteriorating status.

Table 2

Constitutive Patterns and Themes

Constitutive Pattern	Themes
Dwelling with uncertainty	a. Facing the unexpected b. Putting feelings on hold c. Reaching for a lifeline d. Anguishing upon reflection
Building me up	a. Relying on others b. Seeking camaraderie c. Building my own toolbox
A new lifeline: Salient being	a. Giving up the ideal b. Seeing possibilities

Constitutive Pattern: Dwelling with Uncertainty

The first constitutive pattern, *dwelling with uncertainty* portrays nurse residents' experiences as they began encountering patients with deteriorating statuses. Facing unexpected and unfamiliar situations in which fast-action responses were required led to difficult decision-making and feelings of fear and anxiety. They related feelings of inadequacy related to knowledge and skill ability. The meaning of this experience, as a measure of their progress in the nurse residency program, influenced these novice nurses to question their capability of "becoming a nurse"; asking "Can I make it?" While such uncertainty with their role was often experienced by nurse residents during the residency

year, it was during such "high stakes" patient encounters in which uncertainty was magnified.

The themes *facing the unexpected, putting feelings on hold, reaching for a lifeline,* and *anguishing upon reflection* all point to overwhelming uncertainty experienced by the participants. Experiences that resulted in uncertainty were different for the participants. For some it was the uncertainty surrounding decision-making. For others it was the inability to act quickly to perform a skill or to readily recall the vast knowledge base needed for the care of clinically unstable patients. Regardless of the experience, however, uncertainty stemmed from feelings of personal inadequacy in this situation. Stories describing panic, fear, and anxiety were related. They feared harming the patient or appearing incompetent. Contributing to their uncertainty was the unpreparedness for witnessing deterioration and at times the death of the patient. This resulted in strong emotional reactions such as sadness, helplessness, and anguish. Participants described having to set aside these feelings in order to perform adequately in this situation and related "needing a rescue" or someone to "take the reins". They used the term resources to describe the help they received (or not) during the situation. When resources were inadequate or the nurse resident was criticized for their performance during this experience it created a difficult transition. Each of the themes within the constitutive pattern, *dwelling with uncertainty,* is presented with supporting responses from the participants.

Theme: Facing the unexpected. To the nurse residents in this study, *facing the unexpected* meant facing the unexpected reality of patient deterioration resulting in their own unexpected emotional reactions. When describing their experiences, nurse residents

related surprise and shock when encountering patient deterioration. Reactions stemmed from incongruence between what they thought should happen and what did happen with respect to different aspects of the experiences described. The unexpectedness was about the sudden shift in a patient's condition or incongruence, their own emotional reaction, or the timing or urgency of a needed response. For many participants the unexpected was experienced as all of these aspects.

First, for these nurse residents with limited knowledge and experience, they had not anticipated that a patient's minor problem would turn into deterioration or that well known interventions would not prevent deterioration. A second aspect of facing the unexpected was facing an unexpected emotional reaction to the situation. The urgency with which they were expected to act combined with their uncertainty of the correct action resulted in feelings of being scared and overwhelmed. Moreover, they related being emotionally unprepared to witness human physical deterioration, patient and family suffering, and at times death of the patient. Despite having experiences with death in their personal lives, the nurse residents did not expect that witnessing patient deterioration or death would impact them in the way that it did. Participants' unexpected feelings ranged from being scared and overwhelmed to feeling anger, sadness, or helplessness.

The first aspect of facing the unexpected was related to incongruence. The participants describe resulting surprise and shock as a result of their inexperience with patient deterioration. For example, one nurse resident shared his experience encountering a deteriorating patient during his fifth month of residency: "I just remember thinking it is

just amazing how this patient can come in with a minor complaint, such as dizziness or stomach pain, and all of a sudden just deteriorate in front of you".

Incongruent expectations of the management of patient deterioration were evident in another participant's story as she describes being shocked when a patient who had been given Tissue Plasminogen Activator (TPA) for a cerebral infarction, was demonstrating signs of clinical improvement, suddenly experienced a conversion to a hemorrhagic stroke and resulting deterioration. For this nurse resident, early in her residency year, facing the unexpected meant facing the limits of medical treatment for curing patients resulting in a sense of helplessness:

This was, let's give her this wonderful drug, save her life. Look she's up walking, everything is fine; she'll go home tomorrow and then boom, she's not. That was the first time *that* happened...Sometimes, everything we do, does nothing for them.

For another participant *facing the unexpected* was the result of incongruence between the handoff report from the Emergency Department nurse and the patient's physical condition upon arrival to the surgical intensive care unit. As a result of not being appropriately informed of the patient's deteriorating status, an emergency response was required.

Feelings such as being scared and overwhelmed resulted from the unexpected reality of having to act quickly or readily recall complex information to guide patient interventions. These nurse residents, new to clinical practice, were accustomed to practice that occurred within the controlled and predictable environment of academia. In their former role as student, whether demonstrating competency in the classroom, lab, or clinical setting, expectations and procedures were clear and limited in scope. *Facing the*

unexpected for these nurse residents resulted when confronted with an unfamiliar, high stakes situation of an urgent nature without the preparedness, protection and/or routine once experienced in school.

For some participants it was facing difficulty with being able to translate knowledge to actual skill performance. For example, one nurse resident, three months into the residency year, contrasted demonstrating competency in her current practice to nursing school experiences. In this emergency situation she described having to act quickly in order to suction a mucus plug from a patient under her care:

> I know on paper I would know what to do. I would get it right; but actually doing it is just a whole different story. Yeah, it is a lot easier on paper than in practice. Because practice is a real person with a real life that is in your hands; yeah it is a lot scarier than a test.

Another participant related feeling overwhelmed when faced with unrealistic expectations to remember vast amounts of information, not provided in school, yet now required to practice in the intensive care unit:

> I consider myself a good student. I consider myself a quick learner. But it was incredible, the amount of information to learn, like what pressor do you dial back first? I'm like – I did not have that in school, I don't have a chapter in book…the patient is on 3 different pressors, which one do you dial back first? Well you dial back the heaviest one, well which one is the heaviest one? Ok the Levophed. You know, I mean like things you have no idea of and they would say: 'I told you that last week'. And I would think, that and 800 other things.

In another example, *facing the unexpected* meant having to perform many newly acquired skills during an emergency response situation while remaining attentive to family members: "Putting in an IV is new, vent setting are new, drips are new, not to mention trying to explain things to the family because if you can explain it to the family, you calm and control the situation".

Finally, *facing the unexpected* was the result of experiencing emotions related to witnessing human physical deterioration, patient and family suffering, and for some, death of the patient. For some it was an actual nurse-patient relationship that resulted in participants' feelings of connectedness resulting in stronger emotions during deterioration. For example, one participant shared the following story of patient who was resuscitated and subsequently received orders for Do Not Resuscitate and comfort care:

> I had a little bit of a connection with her because I had taken care of her when she was with it. And she would mouthe 'thank you' and that was a nice experience for me… here you are taking care of someone, you have cleaned them every night (pause). So you have done everything for this patient for a week or two and now you are watching them die. I was shocked at how impactful it was on me.

In other instances, there was a perceived connection because the deteriorating patient was close to the nurse resident's age thus allowing them to identify with the patient and family.

> The ones that stick out are definitely the ones that still stick out today. The ones who are just as old as you are…honestly it's looking at your parents, and it's your friends and it hits a little closer to home, those ones.

Similarly, another participant related her difficulty adjusting to the emotional impact of providing nursing care to patients with life-threatening injuries:

> Because in a minute, you know, motorcycle accidents or car accidents and these kids and you know you are like, 'that could be my husband, brother, sister, mother'. That plays with your mind a little bit. It is a very emotional, hard job. It is not easy.

Theme: Putting feelings on hold. Another dimension of *dwelling with uncertainty* resulted from the need for timely decision-making during a high-stakes situation. As a result, nurse residents, already experiencing emotions related to the unexpectedness of patient deterioration, acknowledged a variety of feelings related to the importance of their decision-making in these experiences: Fear, panic, anxiety, feelings of inadequacy and stress. Moreover, several nurse residents related feelings of stress and anxiety continuing even after a Do Not Resuscitate order was made. Providing end-of-life care to patients and families was as unfamiliar to them as emergency response situations. Each participant related the need to set these feeling aside in order to appear confident and adequately perform in the situation.

'When', 'what' and 'who' were specific elements that influenced their feelings in the decisions challenging nurse residents: Knowing when to call the health care provider or Rapid Response Team; deciding on specific actions to take when immediate nursing interventions were needed; and/or knowing what to say to family members. Participants spoke of the characteristics of these decisions: the importance and urgency of these decisions, the inexperience with this type of situation, and fear of making a mistake or being judged for their actions.

During the initial moments of patient deterioration in which a change in patient status was noted, nurse residents were often uncertain if the patient was actually deteriorating and questioned their ability to recognize patient deterioration. This resulted in feelings of inadequacy and a lack of confidence. When confronted with a changing patient status, tension mounted as they asked themselves: "Is this something I need to be concerned about and act on?" The mental challenge of such a situation is described below:

> When it is just you and the patient in the room, the challenge is to decide when to pull the emergency rope, call for a rapid, or when to make a call to a physician at three or four in the morning...And when that happens there is a lot going on in your head; Is this something I really got to be concerned about? Or are they going to cough and all of a sudden their breathing will clear up? How is their O2 sat? (pause). That part I find very challenging, knowing when.

Accompanying the decision of whether or not to call for assistance was the fear of making a mistake or being judged or criticized for that decision. All of the participants feared harming their patient by an incorrect action or decision made during an emergency response situation. One participant related: "you don't want to make a wrong decision that could be fatal." Sometimes there was fear of being judged for poor performance: "When you first come out of nursing school, you think, if I ask too soon does that make me look weak clinically?" In other cases there was fear of criticism. One nurse resident admitted reluctance to call a rapid response because of his experience in which novice nurses on his unit were criticized for calling a rapid response too soon. He explained:

> And I know all the rules, but you are still reluctant to call the rapid. You can say there is no prejudgment attached to it all you want but that is just not true, I think. And it is a major culture shift.

The need to put feelings on hold once a situation was identified was evident throughout nurse resident stories. They acknowledged that deciding and then acting, the when, what and who, could not be addressed in the presence of these feelings. Feelings were put on hold, as they described it, to adequately function. Many used metaphors or various phrases to describe how they thought they needed to feel, or to be viewed such as: "be a stone", "I tried to have a strong appearance on the outside", "I tried to be confident" "trying to stay calm". One participant described "fighting through" her emotions throughout her shift so that she could care for her other assigned patients in addition to a patient who was actively dying.

Their fears were put on hold as they attempted to appear confident and competent in the face of stress and anxiety that resulted from inexperience with rapidly changing clinical situations and/or a lack of knowledge and experience with end-of-life care. A common reason given for putting feelings on hold and attempting to appear confident was because they did not want to look incompetent, especially in front of family members. One participant related being able to place her feelings on hold as she considered the emotional fragility of the family of a dying patient under her care:

> Having a patient that can't really make their needs known, and having the family watching your every move because they are already anxious and scared. You have to figure out what you are going to say and do before you go into the room. So

> that put a lot of anxiety on (pause), so I had to know what I was doing but I had no clue as to what I was doing because I was so new.

This was echoed by another participant reflecting on his residency year: "When you look incompetent in front of the family that is unfortunate and brings its own stress."

Another resident described that appearing confident and not too nervous was necessary for her in order to prevent her from making a mistake even when decision-making was out of her control:

> One of the NPs never left the room with me…She was really running the show – whatever she told me to do, I did… I tried to be as confident as possible because when you aren't confident, you can mess up. She gave me simple explanations like, 'just push the epi', things like that. I was nervous, shaky, but I tried to stay calm because it was in someone else's hands and I was just being told what to do.

Theme: Reaching for a lifeline. Reaching for a lifeline describes nurse residents' experiences as they noted changes in patient status *and* recognized their inability or fear of an inability to manage the situation. Statements such as "needing a rescue" or someone to "take the reins" were made. Reaching for a lifeline was used to describe how these novice nurses reached out to others to help them manage the situation. Participants used the term 'resource' when describing assistance (or not) during patient deterioration. Resources were identified as: their preceptor, seasoned nurses, or experienced team members such as respiratory therapists, physicians, or nurse practitioners. Resources were described as available or not and enough or not enough. Often participants viewed the availability of resources as being rescued. They described being comforted when

another "broke down the chaos" or "took the reins". In contrast, when resources were not available, statements of feeling alone or being abandoned were made.

One important resource was a preceptor. During the first few months of the residency program, novice nurses were under the direct supervision of their preceptor. As a result, during patient deterioration, preceptors were an important resource for the nurse resident and were described as someone who was "right there to help" "held the reins" and "broke down the chaos". When preceptors were viewed as available and supportive they were considered a good resource. When preceptors were described as intimidating or criticizing, nurse residents recalled feeling unsupported and alone. This further worsened the uncertainty surrounding their capability of making it as a nurse.

As nurse residents moved into an independent role following the direct preceptorship experience, the need for resources during encounters with patient deterioration continued. For the interviewees in this study, direct preceptorship duration was three to five months after which time, the nurse resident moved to their assigned shift. Resources during this time were most often identified as seasoned staff nurses and other members of the health care team. This resident related being comforted because of the resources available to him as a nurse resident in an ED:

> All we had to do was grab the respiratory therapist and some nurses and the doc and we ended up intubating him because he wasn't able to breathe. But it was comforting to know that whether you're in a residency program or past that point that you always have resources available to you.

In contrast, when resources were not available to assist the nurse residents, statements of drowning or needing a rescue were made. One participant related his

experience in which he described not having seasoned nurses to assist with making patient care decisions on the night shift:

> There are not a lot of resources; that is what I found tough. You are making the call. In my previous career, there were more resources to ask questions to with really no negative connotations attached to it. Here, you really feel as though you are making these decisions on your own and they are important decisions.

For another nurse resident, who completed the NRP one month previously, related that an ongoing lack of resources to assist with complex patient care decisions on the night shift causes her to contemplate leaving the residency program:

> I remember one night they left me...this was a really bad night. I had an ICU patient that was on the unit with an insulin drip. And I had never had an insulin drip before. I'd seen it but I had never had it. And I had.... all the other patients on the floor were ICR patients; one had an A-line; one had this, this and this. And the nurse they sent was very sweet, very good but a med-surg nurse and she certainly couldn't help me with anything that I needed help with. So I called a nurse from my unit who was floated to another unit. She was awesome, I probably called her 4 or 5 times to please come down and help me; to make sure the insulin drip was correct, that this person's A-line was correct, just little things that you just don't know. Yeah, like other times I will call other units, 'do you have an educator on tonight that can come down to help me?' No. 'ok'. Ok so I just keep doing what I am doing down here (laughs). Every time I walk into that building I feel that I am being set up to fail (pause, starts to cry). You know, like 'who has my back?' It is my license that is on the line if something goes wrong. They don't

> put you in an environment where you can be the best nurse, you can be. It is a scary thought because I will tell you I can't go on like this, for 20 years. I can't do this for three years let alone for 20.

Theme: Anguishing upon reflection. For each of the participants, first encounters with deteriorating patients brought about anguish when reflecting on the event. The dimensions of *anguishing upon reflection* resulted from nurse residents feeling responsible and/or blaming themselves, questioning or second guessing their actions during deterioration, and/or anguish relating to the experience of death.

This participant's anguish was evident as she described an experience in which she relied on more experienced nurses to guide her actions when she noted a change in patient status. Seasoned nurses had advised that her patient's complaints of abdominal pain were because of the patient's psychiatric illness. Eventually the nurse resident summoned a physician to the patient's bedside because of her own observations of the patient "not looking right" and her thoughts that the patient's screaming "must be due to more than psychiatric illness". She further explained during the interview that the patient was, in fact, deteriorating requiring an emergent intubation and surgical treatment for a perforated bowel. She explained how she felt afterwards:

> Ohhh, did I not go to the resident soon enough because everyone around me was saying, 'no she's crazy, this is what she does and she says she is in pain but she is not'. And then you think about it and go over it in your head, did I do the right thing? Did I maybe not catch something early enough?

For another participant, the anguish she experienced as a result of her feeling responsible for a patient fall that resulted in an intracranial bleed lasted for months. She

described how she felt when she returned to work to find that the patient had been transferred to another hospital for neurosurgery:

> I was in the bathroom, pale, about to throw up. They [the nurses] were good about it: 'It wasn't your fault, like she fell and things like this happen'. But I was, (pause) it took me like a good half of shift to finally be like, ok, maybe I should, (pause) I am ok with it now, I mean not ok, because it took months for me to be ok.

During the interview, this participant still wondered, "Was she ok? Did she recover?" Anguish resulting from caring for deteriorating patients for some was described as leaving a permanent mark: "It scars you because, oh my God these patients (pause), at the drop of a hat, can go from sleeping fine to waking up and screaming, you know it is overwhelming, it is very overwhelming".

Another aspect of *anguishing upon reflection* was unrelated to the nurse residents' actions but rather a result of witnessing acute deterioration and death of a patient. For example, this nurse resident describes how she felt when a patient who was on the unit for several weeks acutely deteriorated:

> I was scared. I kind of stepped back a little because there were enough team members that were there. It was very emotional because he was there for so long. He became part of the family, of the unit's family. So I wanted to be more of a support for the family who were asked to step out. And the [patient's] dad was saying: "I know this is it, this is it." So I tried to be more of an emotional support for the family.

In another example, a participant experienced anguish when caring for an actively dying patient who reminded her of own relatives who had died. She explained that due to her responsibility to the other patients that were assigned to her care, she could not be in full attendance to one patient who, following deterioration and subsequently a Do Not Resuscitate order, was actively dying:

> I was afraid of her passing and me not knowing; that she would be alone...I had experienced death in my family, of which I was not witness to; I was too young and my parents wouldn't allow it. But I think the anguish kind of comes back wondering, is this what happened to them [her relatives]?

For some, anguishing in reflection was experienced as an unexpected release. One participant explained: "I don't even think you realize how it feels while it is going on until after...till you are on the phone crying to your husband on the way home in the morning".

In another example, failure was viewed as anguish. Although it was clear that a participant had provided an important presence for a family member of a dying patient, there was a sense of failure noted in her story: "What could I have said to that woman, the daughter, to alleviate some of her pain? She was losing her Mom. I didn't know what to say to her so I just sat with her".

The first constitutive pattern, *dwelling with uncertainty,* portrays nurse residents' experiences as they began encountering deteriorating patients. Facing unexpected and unfamiliar situations in which fast-action responses were required led to difficult decision-making and feelings of fear and anxiety. Witnessing patient deterioration and at times death of the patient compounded their uncertainty. The uncertainty of the situation

and the meaning of this experience, as a measure of their progress in the nurse residency program, resulted in participants questioning their ability to become a nurse. The second constitutive pattern describes participants' being in the world as they developed during their residency year.

Constitutive Pattern: Building Me Up

Heidegger asserts that individuals come to know through interaction and engagement. The second constitutive pattern, *building me up,* describes participants' journey to acquire knowledge, skills and behaviors to care for patients who are deteriorating and to succeed in the nurse residency program. Experiences with deteriorating patients, in which uncertainty was overwhelming, were important impetuses for their development. They described wanting to be good at what they do for their patients' sake and their own. They related not wanting to appear incompetent in front of others, especially the family members of a deteriorating patient. Their underlying desire to learn and succeed as nurses can be detected in their stories. One participant related, "I want to be the best I can be". Presented within each theme are the elements that participants related as essential to their development. *Building me up* represents a continuation of a journey that began in nursing school. Termed formation, it is a transformative process from a "well-meaning lay person to the nurse who is prepared to respond with respect and skill to people who are vulnerable and suffering" (Benner et al., 2010, p. 166).

According to Benner and colleagues (2010), formation differs from socialization as it represents an internal process constituted by changes in identity and self-understanding that transforms how novices perceive and act in situations. A

distinguishing feature of this process is the movement from a process of skill acquisition for producing predictable outcomes to exercising flexible judgment and response-based action in an undetermined situation. *Building me up* represents these participants' formation journey from uncertainty into the realm of relying on self as the new reality.

Upon arrival to the NRP, nurse residents, acutely aware of their inexperience relied on others to begin the building process. They viewed the NRP as a time in which they would receive guidance to help them develop professionally *and* be protected from the reality of independent practice of which they did not feel prepared to face as newly graduated nurses. When asked to describe what they expected from a NRP, participants made statements such as "bringing me along"; "allowing me to get comfortable" or "not throwing you to the wolves". This was especially the case when they encountered patient deterioration, they expected others to take over and "run the show". Vitally important to their growth and professional development was support provided by preceptors, nurse colleagues, and residency mentors. As the residency year progressed, participants acknowledged ways and experiences that they used to actively build their own knowledge and skills. For these participants, *building me up,* during the NRP meant: *relying on others, seeking camaraderie,* and *building my own toolbox.*

Theme: Relying on others. For all of the participants, the process of learning and growing during *building me up* began with a reliance on others. Participants identified their preceptor, nurse colleagues on the unit, and nurse residency educators as those individuals that they most relied on to help them to manage patient deterioration *and* importantly, to coach and support them to achieve competency as a nurse resident. For most participants, having a trusted preceptor was one of the most influential aspects of

their formation. High regard for expert preceptors was evident in nurse resident narratives as they surrendered themselves to preceptors whom they were in awe of and who "knew what they needed to learn". When asked about preceptors, most participants reflected on their own experiences but also expressed thoughts about an ideal preceptor. Some of their ideas were formed from discussions with other nurse residents in their cohort. A trusted preceptor was described by many as having the same characteristics: Someone who is open and "there for them", was organized in their teaching approach, direct with stating expectations, provided specific feedback, demonstrated patience by not "taking over" too soon, and pushed them to learn by encouraging them to problem solve rather than providing answers.

For several participants encountering patient deterioration for the first time, preceptors who were "there for them" were described in physical spatial terms because their preceptor was nearby and readily took over. Others used phrases relating more to taking control of the situation such as "taking the reins" and "running the show" were used. For example, one participant explains, "It was very comforting when this patient started to take a downward turn that my preceptor was right next to me making sure that we were doing everything right".

As the nurse residency year unfolded, effective preceptors were described in terms of more than a physical spatial relationship. For Heidegger, the existential spatiality of Dasein is characterized by what he terms de-severance, a bringing close. Such bringing close is not in a physical sense as an entity in Dasein-world relationship is 'nearby' if it is readily available and 'far away' if it is not, despite whatever the physical distance is (Wheeler, 2014). For some participants they looked for additional qualities in

a preceptor such as someone who attended to their fears, coached them to become good nurses, and someone who helped to build their confidence as they journeyed through what some related as a "very difficult first year".

Openness of a preceptor and the ability to "click" with them was largely due to preceptor attitude; a strong relationship with the preceptor occurred when the preceptor was viewed as someone who wanted to be a preceptor, was willing to answer many questions without judgment, and one whom they felt comfortable seeking out. Overall, the importance of the preceptor role in resident success was evident in this statement: "a preceptor can make or break you".

As result of having a trusted preceptor, residents expressed that their confidence and feelings of competence were enhanced. In sharp contrast to the experience of having a preceptor whom they trusted were narratives describing negative experiences in which the preceptor experience meant being unsupported, misunderstood, intimidated, or criticized. When they encountered these experiences, nurse residents doubted themselves as nurses and even considered leaving the residency program and one considered leaving the profession. In the following example, the importance of the preceptor role to facilitate nurse resident competence during experiences of patient deterioration is evident as the nurse resident contrasts two of his preceptors' approaches during patient deterioration:

> so she [the preceptor] took that chaos and broke it down for me. On the other hand, in the other experience, you had the same chaos, I was a tiny bit more comfortable with it, but it wasn't broken down. It was 'well that is going, deal with that now, oh and that is happening now too'. I am not ready for that. Help

> me to take care and learn to set priorities and act on them. Because once you understand it, you can see what is going on and you know what to take care of first.

In another example, a nurse resident describes the impact of preceptors on her development as she compares her first preceptor who was intimidating and unavailable to her second preceptor who was available for questions and was supportive: "So I went from having a horrible experience and not even wanting to move along to having a really good preceptor where she would develop what I needed to know. So that was a really good experience". In one instance, evidence of bullying was noted as this participant related her experience with a preceptor:

> if I needed to ask a question, he wanted me to only ask him the question. I would get yelled at and screamed at if I asked any other person a question because he felt, 'why are you asking other people? I know what I am talking about. I only want you to ask me'.

Finally, another participant felt criticized for expressing sadness when his patient who had deteriorated, now on comfort care, was dying. He related that he was told by his preceptor that "people die" and that he should "get over it".

Another important aspect of relying on preceptor was for feedback on their performance. The manner in which the feedback was given was also important. Nurse residents related that they needed both positive and negative feedback for their development of competence and confidence. They appreciated when preceptors were direct with stating expectations. Furthermore, participants relied on preceptors to protect them from criticism or judgment from others. During an encounter with a deteriorating

patient, this nurse resident described how her preceptor cued her in during an interaction with a physician for the intention of protecting her from appearing incompetent:

> I remember specifically one code when the doctor said to me 'get amio'. So I said to her [preceptor], 'I am going to go get amiodarone' and she said 'ok, how much?' under her breath. And so she reminded me of what I had to ask him. So I said, 'hey doc how much?' I didn't know that there were different doses of amiodarone so she cued me in without making me feel belittled.

Similarly, another participant described a situation in which he and his preceptor were missing assessment information when relating a clinical case to the physician and the preceptor protected him from embarrassment:

> Once he [preceptor] had me call a doctor on something, it was a cardiologist, and I was just getting into reading EKGs and he asked me a question that I couldn't answer. I said to him [preceptor],' he wants to know the rate of the V-tach' and he said to me 'hey I have no freaking idea' but he took the phone from me and said 'hey doc this is Joe'...So I felt like a knucklehead but he took the fall for it as the preceptor. Which you really need; you are walking with no confidence.

In addition to building confidence, participants related that they valued preceptors who "pushed them to learn" by quizzing them on important content, or those who held back and waited for nurse residents to discover and prioritize actions. For some participants, this experience was difficult or intimidating at the time, however they viewed it as essential to their learning and professional development. Participants related feeling valued and worthwhile by a having a preceptor who was interested in them becoming a good nurse. One participant described an experience in which his preceptor

refused to assist him, affording him the opportunity to recognize his own problem solving capability:

> He [preceptor] said, 'listen, this is something you are capable of doing, don't come to me for this again. I know you can do it. If you really have a problem, come to me but I want that to be your absolute last resort. Try to figure it out on your own.' And that was kind of like a turning point for me.

Participants relied on others for support to help them through the anguish they experienced after encounters with deteriorating patients especially if they were holding in feelings. They described support received or wished they would have received from their preceptor or nurse colleague. This support could mean sharing or reassurance. For some, sharing the experience with family or friends occurred. One participant related that his girlfriend or fishing buddies were whom he talked with. Sometimes they described a letting down (to cry) to a family member especially after feelings were 'held in'. In this narrative, a nurse resident described what would have helped him after his patient died:

> So what would I have valued? It was 6 o'clock in the morning when that happened and so I would have wanted someone to say 'Hey can you pick up Conrad's (pseudonym) less critical patient.' I had a nurse manager that is one of the finest leaders I have ever met. He is a phenomenal leader. You would follow this guy into the fires of hell. A cup of coffee with that guy [nurse manager], would have been great.

Relying on others also meant having a residency coordinator, educator, or mentor to whom a nurse resident could express his/her fears or concerns. This was especially important to nurse residents who did not view having either preceptor support or

adequate resources when they were working independently during the latter portion of the residency year. In this example a nurse resident experiencing a difficult transition as a result of not receiving adequate support from his preceptor wished for support from the residency educator:

> So, a resource, outside of your preceptor, would be valuable; to see how you are holding up. You're looking at: how they are performing, are they following the policies? You are looking at: are they following the procedures right? How are they handling the work flow? But that is *what* they are doing, but *how* are they doing? Put another box on the checklist: Give a call to see how he is doing.

Similarly, in this narrative, a sense of security that this nurse resident received in nursing school was missed as she described the lack of support she received from the residency nurse educator:

> So I went into it thinking they were going to be checking up on us, making sure that we were having good experiences. Kind of being more, like, what's the word, like how you are in school, how you were always being reassured and stuff like that. So I didn't expect to be thrown out there with the preceptor and them to just be like, to check on you once a week, like all this stuff, 'oh how are you doing?', have you sign a few papers, and continue on their way. So I just expected that they were going to transition us a little better.

In contrast, other participants related appreciation for time given to them to share unit or preceptor concerns with residency coordinators/educators at monthly residency program education days:

> The other nurse educator was always more open, more helpful by letting us talk, just hearing us out and making sure that everything is ok. And discussing anything we were not comfortable discussing in front of the preceptor. I think that is very important.

Theme: Seeking camaraderie. Participants described camaraderie as essential to their building towards their professional development. For many, camaraderie was built among their residency cohort and resulted in feelings of being understood. Specific to their development during complex patient encounters they depended on one another for support and learning. Nurse residents related that they were unique, had special needs, thought similarly and as a result, understood one another better than others understood them. A sense of camaraderie among the residency cohort was evident for those participants who were in NRP that held monthly education days throughout the year:

> So, us being brand new, and in the residency program, we're in a very separate place from everyone else so it is nice to be able to talk with someone who is in the exact same place as you and understands how we feel.

Participants related that a sharing of experiences, in particular, the challenges of rapidly changing clinical situations, was especially helpful for them to understand they were not alone.

> Residents on our floor tend to have the same way of thinking. It is interesting when problems arose; each one of us that had been residents, especially those that were a year ahead of us, their way of handling situations was very similar.

One participant related, "the nurse residency program was a little bit of camaraderie with all of our fellow nurse residents, we got to share our experiences and

how they turned out". Another resident, who related having inadequate support to handle complex decision making once her direct preceptorship ended related: "it was like therapy (laughs) every time we got together. Which was good, it made you feel that you were not alone". In contrast, participants who were in NRPs without monthly residency education sessions conducted throughout the year described losing contact with the other residents if not working directly with them on their unit. Those participants expressed a desired to have continued that connection.

Having camaraderie was especially important to nurse residents to handle their emotions experienced after encounters with deteriorating patients. The related this was especially important after direct preceptorship ended when they were working independently. In these situations, camaraderie involved having someone to talk to about the experience: most often a nurse colleague, educator or nurse manager, or in some cases family/friends outside of the work setting hospital. One nurse resident referred to having a cup of coffee with a peer after a difficult shift as "golden". Other participants described camaraderie as support from nurse colleagues to help them process experiences with deteriorating patient, but also to provide immediate feedback to facilitate their growth. Some nurse residents related that it was difficult to receive consistent and specific feedback on their performance. Further, they related that statements such as "oh you're doing really well" did not help them to improve their performance. They wanted specific feedback. One resident related how he depended on nurse colleagues after experiences with patient deterioration: "Having other nurses on the unit is an immediate release, 'did I screw this up?' And they will be there to either confirm or deny".

Theme: Building my own toolbox. As the residency year progressed, participants acknowledged ways and experiences that they used to actively build their own knowledge and skills to care for deteriorating patients, and to develop as professionals. The movement from passively relying on others towards a reliance on themselves was the result of their growth that stemmed from the encounter itself and other experiences during the residency year. Furthermore, they identified specific elements of the residency program that were important to their learning: preceptors, monthly residency education days, their nurse residency cohort, nurse colleagues and residency mentors/educators.

Also important to their learning was the experience itself. As a result of the unexpected and suddenness of an encounter with a deteriorating patient, participants related that they had a "changed mindset" causing them to be more alert in the care and monitoring of patients so that they would be "ready". Repeated encounters of patient deterioration also afforded nurse residents an important knowledge source, experience. This was valued by the participants so that they "would know what to expect". Some related this afforded enhanced confidence. One participant, nearing the end of the residency year, compared how she felt about encounters with patient deterioration in the Cardiac Care Unit (CCU) to riding on a rollercoaster:

> suspense and you don't know what to expect; when it is over and you are like ok, 'I could do that again'. And every time it gets easier because, although every patient is different, you know what to expect.

Especially helpful in *building their own toolbox* were preceptors or seasoned nurses who reviewed the clinical situation with them after it occurred. Reviewing care

practices by expert nurses was also helpful following non-emergent, end-of-life nursing care. One participant related that he found it helpful that his preceptor reviewed the signs of approaching death with him during the first time he cared for a patient who was dying:

> My preceptor would show me different things. Like he would show me changes in the feet, the distal extremities, and how the feet would be turning cold and start turning different colors showing the circulation was dying to the extremities. And he would show me as the urine output would decrease, the color of the urine had gotten a lot darker and that is what you see at the end of life. That is one of the big clues, is the urine output, that once the urine output drops, the kidneys are shutting down, that is when it is getting towards the end so I thought that was very valuable to learn.

Another participant acknowledged that receiving consistent support from her preceptor and nurse colleagues in the form of feedback debriefings helped her to better adjust to caring for deteriorating patients.

In sharp contrast, participants who did not receive support from their preceptor or did not have adequate resources during encounters with deteriorating patients while working independently, experienced negative feelings impacting their transition. Inadequate support from the preceptor included a lack of specific feedback for improvement and criticisms of "not coming along fast enough". When these experiences occurred, they impacted nurse residents' performance in future encounters with deteriorating patients. Statements of having to "prove myself" were made and experiences of heightened anxiety were related. One nurse resident at the end of the

residency year related the impact of her experiences of caring for critically ill patients without adequate resources:

> People can tell you their experiences but you can't really relate to it until you go through it yourself. So in a sense it is like 'oh this is what everybody meant when they said that it could go from good to horrendous, from fine to not so fine, in a matter of seconds'. It is that turn on a dime that puts you sort of on edge. I find myself more on the edge. You would think that I would feel more comfortable but you almost feel less comfortable with everything that you see and know how bad and how long things can go. You know that you are not protected under a preceptor anymore and especially at night when you have no resources which makes you panicky even worse. That is what is has shown me.

Becoming well equipped with the tools needed to adapt to caring for deteriorating patients also occurred during ongoing experience in non-emergent situations. For example, one nurse resident described skill acquisition during the residency year:

> That first year, every single thing you do is new so. And each time you get something down, the next day you have to do something new and you are like 'ok now I don't know how to do this'. And then all of these things build up and you finally get to do things over and over again. And that is why at the end of the year, you are like, ok maybe I can actually do this.

Nurse residency education days were another important aspect of *building my own toolbox.* Participants in programs in which education days continued throughout the year related the positive impact of these meetings. In addition to having the opportunity to connect with other residents in their cohort, the didactic content now provided in the

context of their clinical practice was especially timely and served them well now that they were "actually practicing nurses". Some reported that some of the content was in fact similar to what they learned in nursing school however now more relevant as they had the opportunity to apply the information. Others related that the specific content related to their clinical specialty, such as setting up for an A-line and reviewing intravenous medication drips was especially relevant for them. Still others related having "ah ha" moments during these classes when reflecting on their current clinical experiences.

The second constitutive pattern, *building me up,* represented a phase in which the participants, advantaged by uncertainty and a sense of responsibility for their patients, worked towards acquiring essential elements for nursing practice. They demonstrated a variety of ways to accomplish "a building" of essential nursing skills for practice. They began by focusing on building technical expertise but along this journey acquired relational and ethical skills necessary for nursing practice, especially during the care of deteriorating patients. The evolution of this phase encompassed passively relying on others for knowledge, skills acquisition, and emotional support to a more active process as a result of such experiences in which the nature of nursing was revealed to them. *Building me up* represented moving from uncertainty toward the realm of self-reliance as participants progressed during the residency year. The transition to becoming an independent practitioner is shown in the third constitutive pattern.

Constitutive Pattern: A New Lifeline: Salient Being

Heidegger (1962) asserts that it is through experience, that Being moves toward possibilities. Overtime, nurse residents came to an understanding of their experiences

and themselves as possibilities. Heidegger's concept of "possibility" as potentiality the, 'that which can be', is used to clarify and expand his fundamental ontology of Dasein. Being in the world for these eight nurse residents meant finding a lifeline within themselves. A new reliance on themselves was the result of the residency year in which they synthesized experiences with deteriorating patients, found *camaraderie* and *built their own toolboxes*. The participants in this study came to know themselves and not only their limitations but also their capabilities within the experience of caring for deteriorating patients. *Salient being* emerged as a change in participants' identity and self-understanding as professional nurses.

As nurse residents gained experience to prioritize required tasks when caring for deteriorating patients towards the end of their residency year, they also came to a more realistic expectation of their capability; they were not comfortable and would continue to require assistance from more experienced nurses. However, as a result of their experiences, they now were more in tuned to know when they required assistance, to whom they could look to for assistance, and at times, which types of interventions to anticipate. Statements such as "knowing when you have to tap out and get help" and "you know who is on your team" were used when describing complex patient encounters in which they summoned assistance. Furthermore, as a result of such experiences, and viewing them as a measure of their own progress, these nurse residents gained clarity of their professional selves. As they began to transition from seeing the clinical situation as several unrelated parts to viewing a widened perspective of an increasing whole in which only some aspects were relevant, so too they were able to identify as a professional nurse with important contributions beyond their task performance.

One dimension of relying on self as their new reality was giving up the ideal. As a result of highly dynamic experiences with deteriorating patients, they came to a realistic, rather than idealized understanding of their nursing practice. Participants came to know that they would not be comfortable with or independently competent in the care of a deteriorating patient during the first years of practice. They learned, by experience, that nursing care was complex: patients did not deteriorate or recover in textbook-like fashion, routines of clinical practice would be interrupted, and not every nursing colleague was willing to help their transition. The second dimension of *A new lifeline: salient being* meant seeing possibilities when encountering patient deterioration and importantly seeing possibilities in themselves as nurses. For these nurse residents, relying on themselves as a new lifeline was possible as they came to know their contributions and value to the health care team as well as putting their own limitations in perspective in their role as nurse.

Theme: Giving up the ideal. *A new lifeline: salient being* required the participants to give up ideal notions in order to face the realities of clinical practice. As a result of their experiences, they better understood the complexity of patient deterioration and its unavoidable disruptions in practice routines. As came to understand the uncertainty surrounding how patients would present or respond to treatments they also understood that they would not be comfortable with or competent in the care of deteriorating patients their first year, they would continue to require help.

The participants' narratives revealed that experiences with deteriorating patients introduced them to the "grayness" of clinical care; patients did not deteriorate in a textbook fashion, holding fast to care routines was not always possible, and one would

not know with certainty which interventions would be successful. This is in contrast to orderly didactic presentations in academia in which concepts of disease processes, clinical manifestations of such, nursing diagnoses, and interventions are delivered in black and white terms. For example, in academe students are instructed on the identification and care of a patient with altered respiratory function and nursing care of patients at the end-of-life. However, for the nurse residents in this study, application of these principles in human experiences, most often never black and white, was especially challenging as they began their practice. Overtime, they came to know that routines of nursing care would be interrupted and certainty surrounding how patients would present, or respond to treatments would not be known. For example, this participant, who finished the residency program one year ago reflected upon continued uncertainty in his work during his second year as an ICU nurse:

> And especially starting out, you just kind of want that flow to happen. Little do you know that although that flow is there, there is always going to be pockets of stuff that you could *never* anticipate. I laugh because growing up, my grandma had a sign hanging in the dining room, "we plan, God laughs". And I laugh because that is a shift right there. You come in and you are kind of like oh wow I have two patients and they have this, it should be a nice quiet night. I will be able to chart and maybe help someone out and you then all of a sudden, you look up at the monitor and boom, oh there goes, why is my heart rate 160? So then all of a sudden you are digging into that now.

Giving up the ideal also meant facing patient complexity as one participant described: "the difference between school and the realities of the working is phenomenal:

patient challenges, so many of the patient's you are dealing with have mental health issues, as comorbidities, it is incredible". Participants further related that they came to terms with the uncertainty surrounding complex patient encounters:

> so there were the circumstances when you slowly started to see these problems arise you have the right answers and the right advice and you kind of learn the trends. Your confidence would sort of be there. There is always going to be the night that knocks you down. There is always going to be the second guessing. The reflection, if I had done this, would it have ended differently?

Finally, giving up the ideal meant coming to terms with difficult aspects of nursing practice such as facing the magnitude of human illness and injury and its effect on patient and family suffering and managing instances of negative nurse-to-nurse relationships. Although such experiences were difficult at first, their stories reflected a developing awareness and improved relational skills to handle such situations. As presented earlier, the participants in this study related sharing their anguish related to witnessing the magnitude of human deterioration with family, friends and nurse colleagues. Overtime, a developing awareness and improved relational skills that enabled engagement and involvement with the patient and family was evident in their stories. One participant related coming to an understanding of patient family needs during deterioration. He stated, he "moved the family from the back burner" as the residency year progressed. Another participant related that providing care to a critically ill patient who was ventilator dependent meant a lot to him as a person and a nurse.

Giving up the ideal also meant coming to terms with nurse coworkers who would not offer assistance or were uncivil. One resident related "learning who was on your

team" and found assistance in them. In another instance the nurse resident related that she "toughed it out" with her preceptor who was intimidating and uncivil because she knew, that as part of her nurse residency program, she would be moving to another unit in the near future. In a third instance, the nurse resident requested a transfer to another unit.

Theme: Seeing possibilities. Another dimension of *a new lifeline: salient being* meant seeing possibilities during encounters with patient deterioration and in themselves as nurses. As a result of their experiences with deteriorating patients and others during the residency year, novice nurses related developing a widened perspective of the clinical picture. This was in contrast to, as one participant stated, "the small picture view as a neophyte in the nursing world" in which they viewed themselves as task oriented at the start of their practice. For some participants this meant an improvement in their ability to identify patient deterioration, recognize salient aspects of the situation or problem solve. As a result of their experiences, nurse residents began to reach within themselves for a solution to manage patient deterioration. One nurse resident accomplished this by recalling the airway, breathing, circulation (ABC) acronym for direction to guide her action. Another participant described relying on the automated scoring system, MEWS, as part of the Electronic Health Record, to identify that her patient was deteriorating. "And I am standing there saying: 'this is not right'. And when you do your MEWS, it automatically fires, to make your brain think – time to call a rapid". For others it meant now knowing who to call or even anticipate possible interventions. For example, this nurse resident, who completed his nurse residency one year ago, reflected on his development in the care of deteriorating patients during the residency year:

> During the residency, when you are first starting, you don't know where to turn, because you are like, 'I've got to fix the blood pressure, what do you mean you need a 12 lead? His blood pressure is 60/20, why do you even want a 12 lead? Don't we want to fix the BP first? And little do you know they [physicians] are at that point that they are just one step ahead of you, and as that year goes by…you are prepared to answer the doctor's questions. Then everything can move forward from there.

In another example, this resident related the *possibility* he saw within himself and a fellow nurse resident's development in solving patient care issues:

> The two of us put our heads together and we come up with a solution. We have our own set of tools that we bring and we combine our toolboxes and we come up with an answer. And we're pretty good at it. We are usually right. In the morning we check with more senior nurses, 'we had this, this and this and this is what we did'. They would say 'that is not bad but maybe you could try', and they would give us a tidbit, like 'there is a form to fill out for that'.

Another participant, no longer a nurse resident and now two months past the residency year, described herself as a completely different person who "could do this". For some the reflected statements of other nurses who were 'more seasoned' influenced their ability to see possibilities in themselves. One resident related her surprise when nurses on a unit she was floated to asked if she would consider working there:

> They [the nurses] said 'you're great, can we keep you up here?' and I was like wow, if that was 6 months ago I would not have known what to do or who to call

> and get it done. I remember thinking wow, clicking in my head. If you go through it [patient deterioration] enough times, then after a while, you know what to do.

Seeing possibilities in themselves represented developing role formation. This was detected in participants' stories as they related improved perceptual ability, relational skills, in addition to increased knowledge and skill performance. Specific to patient care, they were able to recognize and articulate their need for help in situations of patient deterioration, including the ability to speak up about work assignments. Further, as they internalized professional values, they now held a widened perspective of their contributions beyond the skill performance during deteriorating patient encounters. This was evident in statements describing what was important to them in their practice: "having confidence to advocate for my patients", "knowing policies and acting ethically" and "take your feelings out of it and do what is right for the patient or what the patient believes is right for them". Improvement in relational skills is evident in the following narrative as one participant describes his understanding of a nurse's role during a patient's death:

> Eventually you find the beauty in being there for the family. And you kind of find that unique aspect that you are there for probably one of the most intimate moments of that entire families' being. The moment when that loved one passes. That is powerful stuff and you kind of key into that and families pick up on that.

For one nurse resident, seeing his contributions in the larger context was related to his nurse residency project:

> you are a brand new nurse so you haven't fallen into the everyday routine so if there is something that is a problem in the hospital, this [the nurse residency

> project] is kind of a venue for change. You're new so you can possibly shift the paradigm. That was probably the biggest capability of being a nurse resident; which was nice because there actually were changes that were made in charting as a result of our project.

For others, *seeing possibilities* in being a nurse and understanding their capability meant considering leaving their present position at the end of the residency year. In one instance, a nurse resident who transferred from the ICU to another unit due to his inability to "come along fast enough" described his current workload on this unit as the reason for considering leaving the hospital. High patient to nurse ratio with insufficient ancillary support prevents him from "giving the quality of care that I am capable of giving". For another participant, who recently completed the residency program, acknowledged that as a result of not having appropriate resources to facilitate complex patient decision making or to support high quality nursing care she would look for a nursing position in another hospital.

Chapter Summary

This chapter presented the analysis of interviews from eight study participants describing the ontological-existential meaning of participants lived experiences of caring for a deteriorating patient during the residency year, *The Journey from Uncertainty to Salient Being.* There were three constitutive patterns identified: *dwelling with uncertainty, building me up,* and *a new lifeline: salient being.* The participants' interviews that were analyzed described how encounters with deteriorating patients impacted them because they viewed these encounters to be "high stakes" for their patient but also for themselves. They viewed the patient's condition as life or death and

experienced uncertainty not only with respect to the management of patient care but also in their new role as a professional nurse. They questioned their capability as a nurse. As a result of the uncertainty of this experience, participants discussed a variety of ways to accomplish "a building" of essential nursing skills for the care of deteriorating patients and to succeed in the residency program. They began by wholly relying on others for knowledge and support and moved toward to a more active process of acquiring essential practice elements. Along this journey they came to know themselves and not only their limitations but also their capabilities. A change in participant identity and self-understanding as a professional nurse emerged.

CHAPTER V

SUMMARY, DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

This chapter first covers a brief summary of the results of the study, its design, methods, and findings. The study limitations within which the findings and discussion are presented are identified. Following this, in the discussion section, the constitutive patterns and themes of the present research findings are presented in light of existing theories and research. Some of this literature relevant to the findings was reviewed and presented in chapter two. Other literature was selected and reviewed as themes emerged. The chapter concludes with a discussion of nursing implications and recommendations for further investigation.

Summary of the Study's Findings

The purpose of this study was to describe the meaning of taking care of a deteriorating patient as it is lived by a nurse resident. Outcomes of new graduate transition within NRP's are largely based on the aggregate of quantitative measures. Most quantitative studies overwhelmingly endorse NRP as a method to assist transition. Transition and role adaptation has been explored qualitatively, however very few studies have ventured to specifically understand the experience and impact of caring for a deteriorating patient on nurse resident role adaptation and successful transition. Qualitative research is best applied to phenomenon not previously explored. An exploration of the phenomenon of caring for deteriorating patients from a qualitative perspective may complement information gathered quantitatively on nurse residency evaluative outcomes. It has been suggested NRPs use quantitative and qualitative

outcome measures to evaluate transition and achievement of demonstrated competencies (Ulrich et al., 2010).

Therefore, hermeneutic phenomenology methodology was chosen as the design to explore the meaning given to this experience. Phenomenology is an appropriate methodology to answer questions about experiences in life and understand what meaning they have for individuals. The philosophical tenets of Martin Heidegger (1889-1976) and Hans-Georg Gadamer (1900-2002) informed this study. Being, according to Heidegger arises from our everyday experiences as one with an inseparable world (Heidegger, 1962). However, Heidegger maintained that what it means to be human is often concealed within our daily lives. Gadamer (1975/2004) places strong emphasis on language that extends Heidegger's existential ontological exploration of understanding. According to Gadamer, language and history furnish the shared sphere in the hermeneutic circle (Koch, 1996, p. 176). The hermeneutic circle, a metaphor taken from Heidegger, describes the interaction of researchers with participant narratives; interpretation of data occurs through the hermeneutic circle. It is through conversation and language that understanding occurs. By examining nurse residents' narratives about day to day experiences, a deeper understanding of the phenomenon emerged.

The recruitment process occurred as described in Chapter III. The volunteer sample was recruited through the use of flyers (see Appendix B) that were distributed in two ways. First, flyers were emailed to member mailing lists of local chapters of Sigma Theta Tau International Honor Society. Second, flyers were posted in two hospitals in a suburban county in the Mid-Atlantic area of the US known to have nurse residency programs. Interested participants were asked to contact the researcher via her contact

information provided on the flyer. Once the respondents to the flyers contacted the researcher via email with their contact information, the researcher telephoned the potential participant to be certain they met the inclusion criteria and to review the study's purpose and the required time commitment for participation. If the participant was interested in volunteering, an informed consent form (see Appendix D) was sent to them via email for their review and an interview date and time was mutually determined. The researcher was mindful to select participants from various residency programs and clinical specialty in order for the participants to be representative of nurse residents and the experiences of caring for a deteriorating patient.

Recruitment began in early July of 2014. Interviews continued through October 2014 when at that time eight participants had been interviewed. At this time, theme redundancy was noted across the interviews of nurse residents. The participants represented acute care, intensive care, and the emergency department in four hospitals ranging from small community hospitals to large teaching hospitals. All interviews took place in a private location outside of the participant's work place.

The researcher maintained a journal throughout the study to document notes about emerging themes, methodological processes and to describe beliefs and personal experiences and how they would contribute to the interpretation. Data analysis was conducted according to Diekelmann's (1992) method and was informed by the writings of Heidegger as described in Chapters III and IV.

After the first two interviews were transcribed verbatim by the researcher, a meeting with the faculty advisor took place. The purpose of this meeting was twofold; first to ensure that interview questions elicited in-depth responses and second, to begin

analyses to review and discuss key phrases and possible themes. At this meeting it was determined that the researcher was adequately probing the participants and was asked to continue this process. The process of data analysis was demonstrated by the advisor and began. Key phrases and possible themes for each narrative were transferred to a separate Microsoft Word document. Notes were organized using the format: description of the encounter with a deteriorating patient (how the participant felt, the most difficult aspect of experience, support received during the experience), description of nurse residency program (expectations, preceptor, and resources) and outcome/meaning of these experiences.

The researcher continuously worked with the faculty advisor to further discuss identified themes, and eventually constitutive patterns. Theme and pattern identification and interpretation relied on Heidegger's tenets. The researcher compared written summaries of key phrases with each participant's transcript. Rereading and returning to text for clarification or to resolve discrepancies was performed independently by the researcher and then in collaboration with the faculty advisor. This circuitous process was ongoing until the identified themes reflected participants' shared practices and common meanings. Common meanings were identified within each interview text and across interviews. The interview process was terminated when redundancy in themes was noted. Themes were compared and contrasted until constitutive patterns emerged thus linking the themes. Three major patterns that illuminated the ontological-existential meanings of the participants' lived experiences of caring for a deteriorating patient during the residency year emerged: *Dwelling with uncertainty, Building me up,* and *A new lifeline: Salient being* (see Table 2).

Table 2.

Constitutive Patterns and Themes

Constitutive Pattern	Themes
Dwelling with uncertainty	a. Facing the unexpected b. Putting feelings on hold c. Reaching for a lifeline d. Anguishing upon reflection
Building me up	a. Relying on others b. Seeking camaraderie c. Building my own toolbox
A new lifeline: Salient Being	a. Giving up the ideal b. Seeing possibilities

Methodological Rigor

Lincoln and Guba (1985) offer four concepts to ensure trustworthiness of qualitative inquiry: credibility, transferability, dependability, and confirmability. During this study, several strategies were implemented to carefully attend to each concept. To ensure credibility, adequate time spent with each participant was followed by intense engagement with the raw data. The researcher accomplished this by returning often to written narratives and by periodically listening to interview audio-recordings to re-capture participants' emotions through voice tone and inflection. A reflective journal enriched transcribed interviews. The researcher moved back and forth between the transcripts, data analysis Word document, and reflective journal notes. Thematic

redundancy appeared after the eighth interview. The faculty advisor, an experienced qualitative researcher, served to improve the rigor of the study by providing oversight that minimized the risk that this researcher's bias could interfere with the proper interpretation of narrative data. Transferability was enhanced by a representative sample and the provision of weighty descriptions important for applicability to other groups.

An audit trail was established in a separate Microsoft Word document to demonstrate consistency and repeatability of the findings. Dependability of the research findings, according to Lincoln and Guba (1985), is enhanced when one can follow the audit trail. Conducting multiple phases of interpretation independently and with the faculty advisor enhanced the audit trail. An example of movement from verbatim phrases to the theme, *anguishing upon reflection*, supports stepwise replication of analysis (see Table 3). The inclusion of verbatim quotations presented in the audit trail further supports confirmability in that findings are shaped by the respondents and not researcher bias.

Table 3.

Audit Trail for Theme: Anguishing Upon Reflection

Key Phrases	Descriptions of feelings after the event	Final Theme
Did I do the right thing?	Questioning competence	Anguishing upon reflection
Did I maybe not catch something early enough?	Blaming self	
Did I not go to the resident soon enough?		
Was she ok? Did she recover?	Not knowing is difficult	
I was afraid of her passing and me not knowing; that she would be alone.	Hardest part is that the patient may be alone	
I think the anguish kind of comes back wondering, is this what happened to them?	Re-lives anguish	
How did I miss this for 2 minutes?	Unmet expectations	

Limitations

The findings of the study were limited by several factors. Hermeneutic interpretation reflects the dynamic, contextual, and temporal histories of the researcher and study participants and may not represent the population of interest adequately. Second, the participants of the study were at various points of residency year and post-completion. While this may have added to the depth and richness of the findings, it may not be generalized to other nurse residents. Furthermore, only one interview was conducted with each participant. Although participant responses were thoughtful, they represented their experiences only up to that time period during their residency year.

Subsequent interviews, conducted as they progressed through the program, may have enriched the description of the phenomenon.

Discussion of Findings

This study on nurse residents, *The Journey from Uncertainty to Salient Being,* revealed three major patterns that emerged as the ontological-existential meanings of participants' lived experiences of caring for a deteriorating patient during the residency year: *dwelling with uncertainty, building me up,* and *a new lifeline: salient being.* The overall findings analysis will be compared to theories related to role development such as transition theories and specifically, new graduate nurse role transition to further clarify the impact of caring for a deteriorating patient on nurse resident role transition. Following this discussion, each pattern and related themes are presented in light of research and theoretical frameworks. The study's thematic patterns will serve to focus the comparison to illustrate how the current findings support or depart from existing research.

Transitions and Role Development Theory

Participants in this study described their care of a deteriorating patient as a barometer for their success in the NRP. Moving from the first constitutive pattern interpreted was a process similar to transition. Especially important to their development in the role of nurse during encounters with deteriorating patients was receiving support from preceptors, nurse colleagues, and residency educators. The works of Schumacher and Meleis (1994), Marlene Kramer (1974), and Benner (1984/2001), as well as Duchscher (2009) are relevant to a comparison of this study's findings to specific literature.

Transitions theory and specifically new graduate nurse role transition theory was explored in the initial literature review for this study. Transitions denote change and are associated with significant life events; models of transitions aim to describe how individuals respond to change (Williams, 1999). Transition is a central concept in nursing forming the basis of theoretical frameworks. Schumacher and Meleis (1994) consider professional role development as a type of situational transition in their transition model. They identified a number of conditions influencing transition: meanings, expectations, level of knowledge and skill, the environment, level of planning, and emotional and physical well-being (p. 121). These conditions further explain the theory and were evident in the study. Meaning is the subjective assessment of a transition and an appraisal of its likely effect on one's life. Expectations encompass other subjective phenomena that influence the transition experience. Level of knowledge and skill relevant to a transition influences the outcome and may be inadequate to meet the demands of the situation (Schumacher & Meleis, 1994). The transition environment, specifically available resources such as social support and/or organizational support in the form of a preceptor or mentor, is an important condition of transition. The degree of planning that occurs before and during a transition is another important condition that influences successful transition. Two aspects of effective planning include: ongoing assessment and evaluation for prompt identification of problems, issues, or needs and effective communication between supportive persons and those undergoing transitions. Emotional and physical well-being is the final condition of transition identified by Schumacher and Meleis (1994). A wide range of emotions may be experienced and physical well-being may be affected. Stress response to transition may be in the form of

anxiety, insecurity, frustration, depression, apprehension, ambivalence, and loneliness (p. 123). Physical well-being is important during transition; when physical discomfort accompanies transition it may interfere with the processing of new information.

The transition conditions described by Schumacher and Meleis (1994) were influential for the nurse residents in the current study as they cared for deteriorating patients. Especially important to participants' transition were: (a) level of knowledge and skill; (b) meaning of the transition; (c) the transition environment; and (d) the degree of planning that occurred during the residency year. Encounters with deteriorating patients in which nurse residents' knowledge and ability were lacking created a difficult transition experience especially since the experience held another meaning for them. They viewed this experience as a measure of their own progress of professional development. Uncertainty was interwoven with their inadequate knowledge and skill ability and was a significant aspect of transition. Participants initially wondered if they would make it as a nurse. They were also advantaged by such uncertainty to work towards acquiring essential elements for nursing practice. One finding in this study, not addressed by Schumacher and Meleis (1994), was the importance of work experience itself as a means to facilitate their transition within the encounter of patient deterioration. Participants in this study learned that theoretical knowledge was important for making decisions during encounters with deteriorating patients however experience was essential. It was during such encounters and other experiences within the NRP in which they learned important relational skills in addition to technical skills promoting a sense of mastery and smooth transition.

The transition environment and planning were also important conditions in this study. Participants described specific elements they received, or wished they had received, during encounters with deteriorating patients and throughout their residency year. Specific to encounters with deteriorating patients, statements of "needing a rescue" were made. Organizational support in the form of preceptors, nurse colleagues, or mentors who identified nurse resident problems/needs and importantly, used effective communication to help them solve issues was an influential aspect of transition found in the current study. Similar to the participants in Schumacher and Meleis (1994) study, the nurse residents experienced anxiety and apprehension during the encounters with deteriorating patients. However, their stress response also included hopelessness and sadness as they witnessed patient and family suffering. Their response was mitigated if support from a preceptor or mentor was noted. Conversely, the lack resources in the form of support caused experiences in which participants related to be "drowning" or "abandoned". Moreover, an ongoing lack of organizational support, in the form of preceptors or mentors caused persistent stress, difficulty transitioning, and consideration of leaving their position and the profession.

Kramer and new graduate's professional role transition. Transition from student to professional nurse has been notably termed "reality shock". Forty years ago, Marlene Kramer (1974) coined this phrase to describe discrepant and shock-like reactions of new graduate nurses when they entered the nursing workplace to find themselves in situations in which they were unprepared for despite extensive preparation and beliefs of readiness (p. viii). A main focus of Kramer's work was on the content of the socialization experience influenced by those who socialize them, the methods used in this

process, as well as the focus of the demands made upon the new graduate during the socialization experience.

Although the context of the health care environment in which nurses practice today has changed dramatically in the last 40 years since Kramer's work, her phases of new graduate transition are still relevant. According to Kramer, the process of professional transition for new graduate nurses is one that evolves in a moderately predictable fashion from the *honeymoon phase*, in which novices are exhilarated and hold idealistic views as they begin their nursing careers, to the *shock phase* when the realities of the workplace conflict with new graduate nurses' idealistic view of the profession. She described that for many novice nurses, the reality shock experience was so extraordinary that they could not perceive, hear, or comprehend many of the socialization directives sent to them. Following the disorientation and disappointment experienced during the *shock phase*, a sense of balance is restored during the *recovery and resolution phase* (Schmalenberg & Kramer, 1979). During this phase, the novice nurse reconciles the conflict however resulting role transformation is dependent on the values and beliefs of the new graduate and outside support.

In this study, reality shock for the participants in this study occurred during early encounters with deteriorating patients as they confronted feelings of inadequacy and unpreparedness, despite thoughts of readiness. Complex knowledge and performance expectations concomitant with witnessing patient and family suffering formed the basis of their shock-like reaction. They compared this experience with their previous protective academic environment. Further, as a result of using this experience as a measure of their professional development, reality shock intensified as it related to more

than work complexity as participants wondered if they would "make it" as a nurse. As the year progressed in which they synthesized their experiences with deteriorating patients and others during the residency program, they moved from focusing on tasks to realize their contributions during the encounter and in their capacity as nurses. Similar to Kramer's findings, especially important during the *resolution* phase was receiving support from a preceptor, nurse colleague, or mentor. Kramer identified such nurses, at various levels of authority, as an important group of socializing agents.

Socializing agents, crucial to transition, were identified in Kramer's (1974) study as physicians, nursing aides, and nurses at various levels of authority. Kramer's study, more than 40 years ago, occurred at a time in nursing in which the discipline's body of knowledge was only beginning to develop and nurses were considered physicians' handmaidens. This study and the contemporaneous nurse residents' socialization is occurring in a very different milieu. Physicians, identified as influential socializing agents in Kramer's study (1974) because they reinforced nursing supervisors' priority on technical tasks were not found as important agents in the current study. This may be the result of discipline specific knowledge development in which values, knowledge, and caring practices are explicit and professional status within the field of nursing is evident. Today, nursing's scientific knowledge crucial to evidence-based nursing practice and increasing autonomy situate nurses as important members of the health care team. Because of the development of this distinct nursing knowledge and research base, the responsibility to instill professional knowledge and values to the next generation now falls squarely on the nursing community.

In the current study, preceptors, nurse colleagues, and/or residency mentors were identified as individuals who most impacted transition. Such individuals were at times viewed collectively, especially when participants related their expectation of a NRP to facilitate their transition to practice. Reality shock was experienced if expectations of the nurse residency program, especially as related to caring for a deteriorating patient such as the availability of a trusted preceptor or mentor, as a means to "bring me along" were not met. Nurse residents who were criticized by their preceptor during the encounter with a deteriorating patient because of their lack of speed during skill performance or failure to recognize salient aspects of the situation related that this worsened their ability to concentrate and perform. Since they viewed their performance as a test, "failing" resulted in a lack of confidence in their ability to be a nurse. This made their transition more difficult. Conversely, when nurse residents received direct and specific instructions and/or words of encouragement from their preceptor, they were able to function in the situation, albeit nervously. Overall, the importance of the preceptor role in resident success was evident in a statement such as "a preceptor can make or break you". Following direct preceptorship, nurse mentors assumed the socializing agent role and were identified as formal, such as residency educators, and informal, as found in nurse colleagues.

Not found in Kramer's study was the role of other new graduates in aiding novices' transition. Members of the residency cohort were identified as an important resource that supported transition for the nurses in this study. Most all participants related that they developed strong bonds with other nurse residents and relied on one another for learning, clinical problem solving, and emotional support. Sharing

experiences, specific to identifying and managing patient deterioration, was especially helpful to their learning. They related that this was because they were at the same stage of development and as a result could understand what they were going through. Those participants who were in NRPs without monthly residency education sessions conducted throughout the year described losing contact with other residents if not working directly with them on their unit. They expressed a desired to have continued the connection with their residency peers. Such a finding is important in light of current NRP research. Opportunities for interactions with other new graduates creates a sense of belonging and improved job satisfaction (Fink et al., 2008; Olson-Sitki, Wendler, & Forbes, 2012) and job dissatisfaction among nurse residents negatively impacts retention rates (Setter et al., 2011).

Benner's work on advanced beginners. In her seminal work, *Novice to Expert Theory,* Patricia Benner (1984/2001) identified new graduate nurses' entry to practice stage of role development as Advanced Beginner. She believed that as a result of having limited experiences in school, clinical situations present to advanced beginners as "perplexing collections of problems and conditions for action" in which they are concerned equally about their own abilities and patient status (Benner et al., 2009, p. 26). These facets of the advanced beginner were predominant in the current study. Nurse residents' stories of their initial encounters with deteriorating patients in *dwelling with uncertainty* reflected a minimal grasp of the situation in which they were task focused and viewed the situation as a test of their personal capability. The findings from this study add to this notion by explicating the deeply felt impact of this experience as a measure of their overall performance and its impact on their professional identity. Initial

encounters prompted nurse residents to question their capability as nurses. Overtime, such experiences allowed the participants to internalize the highly dynamic professional role and were formative in facilitating the development of clinical agency. Clinical agency, as defined by Benner, is the experience and an understanding of one's impact on patient outcomes while integrating into the health care team as a contributor. In contrast to Benner's advanced beginner who experience complex agency, nurse residents in this study came to value their contributions to the health care team and did not see themselves as "secondary participants" (p. 39). Although they related that they would still require others assistance for management of patient deterioration, they related a firm sense clinical agency in statements such as: "having confidence to advocate for my patients", "knowing policies and acting ethically", and "finding the beauty in being there [during patient deterioration] for the family".

Similar to the new graduate nurses in Kramer's (1979) study, the socializing method was influential to transition for the participants in this study. Preceptors primarily determined the socializing method during the experience of deteriorating patients. Accustomed to clear and explicit rules of performance standards in academia, participants in this study described being comforted when preceptors provided direct instructions as to their role in such a situation. When vague, implicit expectations and/or inadequate feedback on their performance occurred, participants had difficulty adjusting, creating a difficult transition. They related that as a result of patient deteriorating situations in which knowledge and performance expectations abound they required someone to "break down the chaos" for them.

Duchscher's process of becoming. Knowledge and performance expectations, in addition contradicting relationships, roles, and responsibilites between the academic setting and the clinical practice setting impacting the process of developmental, intellectual, sociocultural, and physical adjustment is described in Duchscher's (2008) *A Process of Becoming* theory. This theory was explored in the initial literature review as it offers a more contemporary perspective than does Kramer describing new graduates considerable adjustment to changing professional and personal roles occcuring during three stages: doing, being, and knowing. Duchscher (2009) extended her theory by providing a theoretical framework for the most immediate, acute, and dramatic phase of new graduate transition. "Transition Shock" builds upon elements of Kramer's work (1974), transition theory, culture shock, and acculturation theory adding to the body of knowledge of new graduate role transition by highlighting today's intense, highly dynamic acute care units with excessive work demands.

Transition shock theory describes the process related to the knowledge and performance expectations between their protective academic setting and their current expectant professional setting (Duchscher, 2009, p. 1111). Duchscher's study participants experienced high stress levels in association with caring for clinically unstable patients and were self-critical when they believed they had failed to identify or appropriately intervene in a changing clinical situation. The current study confirms these findings and adds to existing knowledge by illuminating nurse residents' perspective in which they viewed their performance during encounters with unstable patients as a measure of their own progress of professional development during the residency

program. "Success" or "failure" of their performance during these encounters extended to their view of themselves as a nurse and impacted transition.

Also consistent with transition shock theory and Kramer's reality shock, was the graduate nurse's relationship with colleagues as a critical factor of the transition experience. In this study, the second constututive pattern, *building me up,* represented participants' formative journey, as they related that their relationship with preceptors, nurse colleagues, and residency educators in addition to having camaraderie was essential to their building towards professional development. Similarly, a qualitative descriptive study by Clark and Springer (2012) revealed a lack of support or interest from a preceptor as a stressor that led to transition difficulty.

Role formation. Importantly, in recent literature, Benner and colleagues (2010) have distinguished formation from professional socialization. They believe formation better represents the internal process constituted by changes in identity and self-understanding that transforms how novices perceive and act in situations. Rather than learning a role in an external way, as implied in socialization, novices are transformed by experiences and in that transformation, understand what it means to be a nurse. As the discipline has moved to a more ontological focus in which caring theories and intrapersonal growth are viewed as important today, formation better represents new graduates' evolving experience. A distinguishing feature of this process is the movement from a process of skill acquisition for producing predictable outcomes to exercising flexible judgment and response-based action in an undetermined situation.

In the present study, formative development was evident in participant descriptions of changes in their capability and perception in *a new lifeline: salient being*

pattern. Their stories reflected an understanding of nursing practice as encompassing more than technical expertise such as perceptual ability, relational skills, and professional values. *Building me up* represented participants' formative journey from uncertainty into the realm of relying on self as the new reality.

Constitutive Pattern: Dwelling with Uncertainty

Uncertainty has been studied as a significant entity in role development and professional socialization. Morse and Penrod's (1999) work on uncertainty in nursing as well as Fox's (1957) work on professional uncertainty in medical students provide good references for comparison to the current study. The participants in this study related what it means to be a nurse resident caring for a deteriorating patient. The first constitutive pattern, *dwelling with uncertainty,* portrays participants' initial experiences as they encountered deteriorating patients. Facing the unexpected, putting feelings on hold, reaching for a lifeline, and anguishing upon reflection describe the uncertainty faced by the nurse residents in this study.

Theme: Facing the unexpected. Overwhelming uncertainty stemmed from feelings of personal inadequacy in this situation and in their ability to be a nurse. Facing situations in which fast-paced decision-making and action were required were clearly unlike anything the participants had experienced before. Feelings of fear, panic, anxiety, and inadequate actions were described. Statements such as "needing a rescue" or someone to "take the reins" were made. Participants described having to set aside these feelings in order to perform adequately in this situation and reached out for help to manage the situation. They used the term 'resources' to describe the help they received (or not) during the situation. They feared harming the patient and appearing incompetent.

Contributing to their uncertainty was the unpreparedness for witnessing deterioration and at times the death of the patient. This resulted in strong emotional reactions such as sadness, helplessness, and anguish. The uncertainty of what it means to be a nurse resident was apparent throughout the narratives.

Uncertainty for the participants began when they encountered an unexpected shift in the patient's condition or during situations in which they detected changes in patient status but were uncertain of the meaning of signs. Uncertainty was heightened as they were required to make decisions and act. These novices related they held an inexperienced view of complex and dynamic clinical encounters and were task-focused. These are not surprising findings as it is well known that knowledge and experience are important factors affecting nurses' ability to detect and respond to cues of patient deterioration (Liaw et al., 2011). Sufficient experience in the clinical setting is necessary for nurses to move from a reliance on abstract principles to manage the situation to viewing clinical situations in context and as a whole (Benner et al., 2009).

Uncertainty represents the fundamental ambiguity of human existence. When situations are in flux, humans tend to navigate towards something predictable. Morse and Penrod (1999) provided a definition of uncertainty that is valid across disciplines and helpful in the context of the professional decision-making process:

> Uncertainty is a dynamic state in which there is a perception of being unable to assign probabilities for outcomes that prompts a discomforting, uneasy sensation that may be affected (reduced or escalated) through cognitive, emotive, or behavioral reactions, or by the passage of time and changes in the perception of circumstances. The experience of uncertainty is pervasive in human existence

and is mediated by feelings of confidence and control that may be highly specific (event-focused) or more global (a world view) (Penrod, 2001, p. 241).

A comparison to professional uncertainty literature. Clearly, in *dwelling with uncertainty,* these novices were unable to manage the ambiguity of decision making because of the complexity of the situation and their inexperience as patient care "problem solvers". The experience of professional uncertainty has been explored in medical students and results when one has incomplete knowledge regarding role functioning in their particular area of work (Fox, 1957). Fox identified three kinds of uncertainty experienced early in training for medical students that relate to the indeterminacies of knowledge. The first type of uncertainty stemmed from an incomplete mastery of professional knowledge base. Students wonder if they have learned enough to practice when there is so much to learn all at once. The second source of uncertainty stems from the indeterminancy of medical knowledge itself. Students learn that medicine is not an exact science but rather a "series of observed relationships and probabilities with few laws" (Light, 1979, p. 311). The third kind of uncertainty stems from difficulty in distinguishing between the two; whether or not the student feels sure of the difference between inadequate personal knowledge and the field's inadequate knowledge (Fox, 1957).

The novices in this study experienced the various types of uncertainty described by Fox. In *dwelling with uncertainty,* the first type of uncertainty, incomplete mastery of knowledge, was evident in the stories of participants' initial encounters with deteriorating patients. They described feelings of inadequacy related to both knowledge and skill ability and spoke of the importance and urgency of the decisions that challenged them

during such encounters. Not only did they question their ability to manage patient deterioration, during the initial moments of patient deterioration they questioned their ability to recognize patient deterioration. Previous studies have suggested that warning signs of patient clinical deterioration often precede cardiac arrest (Goldhill & McNarry, 2004; Goldhill et al., 1999). Such a finding further suggests that educational interventions, such as simulation training, may be helpful in addressing novices' unfamiliarity with various illness trajectories or missed cues of patient deterioration.

Uncertainty and feelings of the nurse resident. Uncertainty for these nurse residents caused feelings of fear, panic, anxiety, inadequacy, and stress and intensified if the patient was dying; providing end-of-life care to patients and families was as unfamiliar to them as emergency response situations. Feelings such as fear panic and inadequacy has been well documented in earlier studies on nurse residency outcomes (Casey et al., 2004; Fink et al., 2008; Goode et al., 2013). However this study's findings give voice to participants' emotions resulting from other sources that contributed to their uncertainty. Fear of "failing" the patient and in their role as nurse *and* feelings of sadness, helplessness, and anxiety as they witnessed human deterioration and/or provided end-of-life care to patients and their families. Finally, the fear of being judged or criticized for decisions added to their uncertainty. Consistent with Tanner's Clinical Judgment model (2006) describing how nurses think in complex patient encounters, contextual aspects, such as knowledge of unit social norms, influenced decision making in this study. Nurse residents experienced trepidation using their clinical judgment because of how they might be viewed by seasoned nurses. For example, their fears included being viewed as "clinically weak" if they asked for help too early, and being

criticized for calling a rapid response too quickly. This finding provides further evidence of the subtleties of interpersonal interactions and the dangers that may present. Benner asserts that environments that are interpersonally threatening curtail novices' learning and place patient safety at risk (Benner et al., 2009, p. 56).

Theme: Putting feelings on hold. Participants related "placing feelings on hold" in order to adequately function in the situation and appear competent. This description was similar to that found in a study examining new graduate nurses' experiences of making clinical judgments at various points during the residency year (Wiles et al., 2013). Initial experiences resulted in a lack of confidence, self-doubt and second guessing. In two particular instances in Wiles' study, the new graduate was paralyzed and unable to care for the patient. In the current study, nurse participants readily acknowledged their partial grasp of the situation and their need for expert nurses to provide a "rescue" and "take over" or "break down the chaos". Such findings have been supported in a previous qualitative study on nurse residents. Ebright et al. (2004) have suggested that in the case of novices, who often have difficulty identifying the most salient issue in patient care encounters, sustaining effective surveillance will require expertise to be available when the need arises.

Theme: Reaching for a lifeline. In the current study, novice nurses related being comforted by their preceptor who took over and made decisions with respect to patient management. New graduate nurses' decision to escalate care and manage patient deterioration is influenced by having clinical support from nursing colleagues (Purling & King, 2012). The lack of readily available expert nurses to novices has been suggested as an "environmental condition" hindering their decision making in a study examining near-

miss and adverse situations involving novices (Ebright et al., 2004). One of the findings suggested that adverse situations may not have occurred had expertise been available to novices. Although the majority of events examined in Ebright et al.'s study were related to medication errors, almost half of the events were related to novices' inadequate knowledge base and inability to integrate available assessment data. This finding is supported by results in Hoffman et al.'s (2009) study in which expert nurses were found to collect almost twice as many cues and were better able to cluster cues to identify patient problems than were novices.

Theme: Anguishing upon reflection. The significance of uncertainty for these participants was evident in the anguish that followed. This resulted from feeling responsible and/or blaming themselves, questioning or second guessing their actions during deterioration, and/or anguish relating to the experience of death. Similar to Fox's (1957) medical students, the third type of uncertainty was experienced by this study's participants because they were unable to distinguish if patient deterioration was the result of their personal inadequacy or the natural limitation of life expectancy within available knowledge. Until novices know more, they blame themselves for their limited knowledge base (Fox, 1957). For novice nurses, fear may be compounded; they fear harming patients because they may have missed an important patient cue and/or are not sure if the physician orders are correct (Fink et al., 2008).

Anguishing upon reflection also described participants' reactions to witnessing acute deterioration and at times the death of a patient. They related strong emotional reactions such as sadness, helplessness, and anguish especially when they had feelings of connectedness to the patient. For some it was an actual nurse-patient relationship and in

other instances, there was a perceived connection because the deteriorating patient was close to the nurse resident's age thus allowing them to identify with the patient and family. Such a reaction was described by Shorter and Stayt (2010) in an exploration of critical care nurses' experiences with grief. Intensive care nurses report more intense grief following the death of a patient who "struck a chord" or if they had developed a meaningful engagement with the patient and/or family.

The first constitutive pattern, *dwelling with uncertainty,* portrays nurse residents' experiences as they began encountering deteriorating patients during the residency year. The interpretation of this experience provides clearer understanding of the uncertainties nurse residents face as a result of such an experience. This experience can be viewed as similar to other novice professionals' experience of uncertainty. However for these participants, the meaning of the experience and witnessing human deterioration and at times death of the patient compounded their uncertainty. The second constitutive pattern describes participants being in the world as they worked towards developing during their residency year.

Constitutive Pattern: Building Me Up

Preceptors and the role of work experience have been studied as significant influences on professional role development. Research on nursing preceptor roles, especially recent literature emphasizing a preceptor as a coach, and Donald Light's (1979) exploration of controlling uncertainty in medical resident training provide relevant references for a comparison of findings revealed within the pattern of *building me up.* The themes within this pattern, *relying on others, seeking camaraderie,* and *building my own toolbox* represented participants' formative journey from uncertainty towards

acquiring essential elements for professional practice. The evolution of this phase encompassed from passively relying on others for knowledge, skills acquisition, and emotional support to a more active process as a result of experiences with patient deterioration. Nurse residents described how their relationship with preceptors, nurse colleagues, or residency educators in addition to other experiences during the residency year influenced their building towards professional development.

Theme: Relying on others. A reliance on others began with participants' expectations of a residency program. They related that they viewed acceptance into a residency program as a unique opportunity and expected that the program would ease their transition. This was especially the case when they encountered patient deterioration. During initial encounters, they expected their preceptor or seasoned nurses to take over and "run the show".

Preceptors were an important resource for nurse residents to facilitate their ability to assume care for deteriorating patients and become good nurses. The importance of a preceptor was evident in a statement such as, "a preceptor can make or break you". Participants used words such as "break down the chaos" or "take the reins" to describe what they needed from their preceptor during the care of a deteriorating patient. Participants who described their preceptors as available and supportive during such situations also related a smooth transition to practice. When preceptors were described as intimidating or criticizing, nurse residents recalled feeling unsupported and alone.

Preceptor role in nursing. The concept of preceptorship dates back to 1882 with Florence Nightingale's recommendation for first year nurses' training to take place in the hospital setting under the guidance of a practicing nurses who were "trained to train"

(Myrick, 1988; Udlis, 2008). The current research supports preceptorship excellence during transition as a critical element for new graduates' development of confidence and competency (Shinners et al., 2013). Preceptors serve as clinical experts, provide day-to-day instruction for novice nurses, and evaluate development and competence.

More recently, coaching has been emphasized as an important preceptor role, especially for the development of novice nurses' critical thinking (Forneris & Peden-McAlpine, 2009). In Forneris & Peden-McAlpine's study, preceptors coached novices' critical thinking development using reflection, context, and dialogue. One element of this type of coaching is comprised of preceptors 'thinking out loud' as they plan and provide care. In this way, preceptors made visible to the novice implicit knowledge behind their actions and as a result, conversations between the two progressed from questioning content knowledge to a reflective, metacognitive conversation. Reflection and dialogue have roots in educational philosophy. John Dewey (1859-1952), one of the most influential educational philosophers, provided the seminal work on reflection articulating how thinking occurs and presented reflection as a method to give meaning to an experience (Dewey, 1933). Paulo Freire (1970) emphasized the importance of dialogue in creating an opportunity for individuals to learn together rather than an act of one person "depositing" ideas into another. Forneris & Peden-McAlpine's coaching strategy, rooted in educational philosophy are especially applicable to the findings of the current study relating to care of deteriorating patients in which critical thinking, as a prerequisite to clinical reasoning, is essential. Nurse residents in the current study valued preceptors who took on a coaching stance. Although the participants in this study did not use the term coaching, they related valuing preceptors and other nurses who (a) readily assisted

during chaotic situations of patient deterioration by "breaking down" and explaining essential issues to address; (b) offered supportive statements during encounters; and (c) afterwards helped them to learn by reflecting on the encounter, providing specific feedback, and by encouraging them to problem solve rather than providing answers. Nurse residents related that specific feedback was important for them to improve their performance yet often difficult to find. A lack of consistent feedback provided to newly licensed nurses persists in the nursing literature (Spiva et al., 2013).

The value nurse residents placed on having nurse coaches for continued development of clinical competency to care for deteriorating patients that was revealed in the current study is similar to existing research on nurse residents. Novices highly value preceptors' presencing which was viewed as attending to them and being open; a preceptor who pushed but also mentored them to become competent nurses was most important (Moore & Cagle, 2012). In another study on nurse residents, activities supporting the development of competency were clinical coaching by expert nurses on their unit (Kramer, Maguire, Halfer, Brewer, & Schmalenberg, 2011).

Research on preceptor coaching also supports its use as a means to facilitate novice nurses' development of skills of inquiry to promote lifelong learning. Such skills are essential for transition. Diane Pestolisi, a paradigm case teacher in the Carnegie study on nursing education uses a coaching method with her students in clinical. She has altered her approach from "'I'm testing to know if you know the information' to 'we need to know this …we're working together to get this information from them'" (Benner et al., 2010, p. 106). Pestolisi's aim is to help students to develop skills of inquiry and learn responsibility for lifelong learning without having them feel punished for not fully

understanding the clinical picture immediately. However she holds students accountable to direct their own learning to fill their knowledge gaps and follows up with them to ensure they have worked to do so.

Conversely, when participants related negative experiences in which preceptors did not coach them to learn but rather intimidated or criticized, or during instances in which they did not receive adequate direction during encounters with deteriorating patients there were negative repercussions. Some participants viewed their performance during the encounter as "failing" and doubted themselves as nurses. Other participants experienced heightened anxiety. They considered leaving the residency program and one considered leaving the profession. This finding is consistent with previous research in which the quality of the relationship with their preceptor significantly impacted new graduate transition (Moore & Cagle, 2012). Similarly, Romyn et al. (2009) found seamless transition to the workplace was reported most often by new graduate nurses who developed positive and trusting relationships with experienced nursing staff. Such reprecussions of negative preceptor experiences are important for hospital administrators to consider as new graduate nurse anxiety and dissatisfaction have been determined as precursors to of anticipated and actual turnover (G. Anderson et al., 2012; Newhouse, Hoffman, & Hairston, 2007). Clearly, the findings from this study provide further evidence that nurse residents need ongoing support from nurses at various levels of practice during situations of patient deterioration throughout the first year of practice. Beginning nurses have had few practical experiences to manage rapidly changing situations and need coaching about which interventions are needed (Benner et al., 2009).

Theme: Seeking camaraderie. Participants described camaraderie as essential to their building towards professional development. For many, camaraderie was built within their residency cohort and resulted in feelings of being understood. They depended on one another for support and learning.

Another notable finding from this study revealed nurse residents' need for camaraderie as a result of their experiences with deteriorating patients. This was described as having support from preceptors and/or nurse colleagues to discuss their feelings following the experience. Novice nurses' emotional unpreparedness for the experience with deteriorating patients and the need for opportunities to process their emotions related to intense patient situations has been documented in the literature (Dyess & Sherman, 2009; J. Ranse & Arbon, 2008). However, the findings from this study add to current knowledge by providing specific information that assisted nurse residents in processing their emotions. Having a preceptor, nurse colleagues, other nurse residents, or formal debriefing teams with whom to discuss the experience was especially helpful for the participants in this study. They termed such support as 'camaraderie'. This description aligns with research on critical care nurses experiences with patient death (McCallum & McConigley, 2013). A strong sense of camaraderie between nurses was essential for critical care nurses to help them cope and maintain emotional stability. Such 'informal' debriefing was an effective coping mechanism as nurses relied on one another for support and debriefing. McCallum and McConigley suggest allocation of time for debriefing when a death occurs. Nurse graduates' need for emotional support following patient deterioration has been reported in an earlier study (J. Ranse & Arbon, 2008). As revealed in the current study, such support may not require significant time.

One participant related that simply having an opportunity to have coffee with a nurse manager whom he admired following the death of a patient would have helped him to process his emotional reaction related to the event.

Theme: Building my own toolbox. Finally, within the pattern of *building me up,* an important aspect of nurse residents' formative journey was the knowledge they gained from the experience of patient deterioration itself. As a result of encounters in which experiences of uncertainty and anxiety were heightened, participant narratives reflected a change in how they worked towards acquiring the needed skills for nursing practice. They related a "changed mindset" causing them to be more alert in the care and monitoring of patients so that they would be "ready". Initially focused on building technical expertise, along this journey they acquired relational and ethical skills necessary for nursing practice and specifically during the care of deteriorating patients. Relevant for comparison are the works of Donald Light (1979) and nursing research related to novice's experiential learning during the first year of practice.

Light's work on training for control. Clinical experience as a means to reduce uncertainty was found in a study on medical residents in training by Donald Light (1979). Light extended Renee Fox's (1957) uncertainty investigation by adding to the framework for understanding uncertainties novices face by shifting the focus of professional education from 'training for uncertainty' to 'training for control'. Acknowledging that uncertainties persist throughout a professional's lifetime of work, 'trainees' feel them most acutely and need to learn to cope with them (p. 312). Light describes the relevance of clinical experience and skill acquisition for controlling the uncertainty of providing care and relating to patients. Such forms of control learned by novices in Light's (1979)

study were relevant to the participants in this study. In 'training for control' students learned that theoretical knowledge was essential for making decisions, but ultimately clinical judgment, learned by experience, prevailed as the more important source. This is similar to findings in a recent study on nurse graduates caring for deteriorating patients at various points during an 18 month transition period (Wiles et al., 2013). Experience facilitated new graduates' ability to call upon this information to make decisions; this process strengthened their confidence. Similarly, the participants in this study related that repeat encounters with deteriorating patients, content within residency education sessions, and seasoned nurses who shared their expertise following an encounter helped to promote a sense of mastery and provided nurse residents with a *toolbox* of information from which they could use to make future clinical judgments. This finding is consistent with yet another study in which previous experience with pre-arrest situations was an important factor in nurses' ability to interrupt deterioration (Gazarian et al., 2010).

A second form of control learned by the Light's trainees, acquiring technical skill ability, was also important to the nurse residents in this study. Light asserts that, to novices, the actual *doing* of the work is more important as a measure their competency than the outcome of their work. To that end, early in their encounters with deteriorating patients, in which their technical skills were lacking, nurse residents in this study perceived themselves as incompetent. Developing technical skills was an important aspect for the participants in this study for them to move from a focus on doing to a focus on being. According to Benner and colleagues (2010), when technical skills become rote, novices are "freed up" for higher level skills such as thinking and decision-making (p. 178).

The second constitutive pattern, *building me up,* portrays nurse residents' formative journey in which they demonstrated a variety of ways to acquire essential nursing skills for practice. Important to them during this process were the clinical experiences they gained during the residency year, monthly residency education sessions, and support from preceptors, nurse colleagues, and residency educators. They began by focusing on building technical expertise but along this journey acquired relational and ethical skills necessary for nursing practice, especially during the care of deteriorating patients. *Building me up* represented moving from uncertainty toward the realm of self-reliance as participants progressed during the residency year. The transition to becoming an independent practitioner is shown in the third constitutive pattern.

Constitutive Pattern: A New Lifeline: Salient being

Benner and colleagues (2010) recent work in which novices' formation has been distunguished from the well-know process of "socialization" better represents the internal process constituted by changes in identity and self-understanding that transforms how they perceive and act in situations. Fox's (1957) work on professional uncertainty describes the persistence of uncertainty in the care of patients. Such literature provides important references for comparison to the findings of the current study within the third constitutive pattern *a new lifeline: salient being.* Participant narratives reflected increasing clarity of their professional selves. As a result of their experiences with deteriorating patients they learned the import of their actions in situations in which the patient's life was truly in their hands. Such experiences were pivotal for them as they realized the deep responsibilities of being a nurse. Although not independent in such a situation, they came to know their capabilities as a professional nurse within the

experience of patient deterioration. A new reliance on self-meant *giving up the ideal* and *seeing possibilities.*

Theme: Giving up the ideal. The theme, giving up the ideal, to face the reality of uncertainty in clinical practice was the result of participants' experiences with deteriorating patients in which the "grayness" of clinical care was revealed: patients did not deteriorate in a textbook fashion, holding fast to care routines was not always possible, and one would not know with certainty which interventions would be successful. Similar to Fox's (1957) medical students, the participants in this study came to understand the persistence of professional uncertainty in the provision of patient care. This type of persistent uncertainty, according to Fox, stems from the indeterminancy of medical knowledge itself. Novices learn that medicine is not an exact science but rather a "series of observed relationships and probabilities with few laws" (Light, 1979, p. 311). As a result of highly dynamic experiences with deteriorating patients, participants in this study came to a realistic, rather than idealized understanding of their nursing practice. They learned that they would not be comfortable with or independently competent in the care of a deteriorating patient during the first years of practice; they would continue to require assistance. This finding is consistent with nurse residency outcomes in which emergency response and end-of-life care remain a clinical challenge for nurse residents throughout the first year of practice (Goode et al., 2013).

Giving up the ideal also meant coming to terms with other difficult aspects of nursing practice. First, the magnitude of human illness and injury, and its effect on patient and family suffering, presented itself in full view during encounters with deteriorating patients. This was unlike their experiences as students involved in the care

of a patient who was deteriorating. Universally, when patients deteriorate, the student is subjugated and the primary nurse resumes full care of the patient. Further fracturing this experience is the student's schedule. They rarely return to clinical the next day to see resolution of the event as their schedule brings them back to clinical days or a week later. The participants of this study described a developing awareness and improved relational skills that enabled engagement and involvement with the patient and family. One participant related an experience in which a patient, who was on her unit for several weeks, deteriorated. This patient's acute deterioration involved cardiac arrest during which it was apparent to her that she was unable to perform the technical skills required at that moment; instead she instinctively attended to the family of the patient as her primary focus. Benner et al., (2010) term this process "re-forming the social sensibilities" as one aspect of professional formation that develops (p. 181). As a result of encounters with patient deterioration, participants re-formed how they related to patients and their family members and quickly developed an understanding of their patients' suffering and fears. Being present to patients and families during a time of suffering and experiencing the responsibility of nurses is central to the formation of nurses (Benner et al., 2010). In contrast, according to Benner et al., (2009), nurses who do not develop effective skills of involvement in clinical situations do not go on to develop expertise in nursing practice.

The second difficult aspect of nursing practice faced by some participants were instances of negative nurse-to-nurse relationships. Several of this study's participants related experiences in which nurse coworkers did not offer assistance when they asked for help or experiences in which their preceptor was uncivil towards them. The

participants in this study related ways in which they "worked around" such people to find the assistance they needed. For example, one resident avoided the particular nurse and two others related that transferring to another unit was their solution. Preparing nurse graduates to manage such conflict is essential. Experiences of horizontal violence for nurse residents in transition programs continue despite organizational leaders' assertions of zero tolerance for such (Dyess & Sherman, 2009). Furthermore, experiences of coworker incivility appear to be particularly damaging to new graduate nurses' mental health (Laschinger, Wong, Regan, Young-Ritchie, & Bushell, 2013). Not surprisingly, in another recent study on transition, nurse participants requested more education on communication and strategies for dealing with incivility and bullying (Clark & Springer, 2012). The impact of new graduates' work environments on the development of "reality shock" has emerged as an important aspect of transition (Kramer et al., 2011). In Kramer's study, discussed earlier, a focus on concieving new graduates' misaligned role conceptions as a cause of reality shock was shifted to the impact of misaligned expectations of the work environment as the cause. Termed "environmental reality shock" was found to be reduced in new graduates who begin their practice on clinical units with nurse-confirmed Healthy Work Environments (HWE). A HWE is defined as a unit in which a representative group of experienced nurses confirmed their work environment enabled them to engage in work processess and relationships essential to the provision of quality care (Kramer & Schmalenberg, 2002). Clark and Springer (2012) emphasize that it is the responsibility of nurse educators, leaders and nurses to create and maintain a civil and collegial practice environment. Remaining alert to possible power differences is imperative.

Theme: Seeing possibilities. Developing clinical competency has been associated with nurse residency program outcomes. Becoming competent within the experience of caring for a deteriorating patient was related by the participants as an improved ability to identify patient deterioration, recognize salient issues and problem solve. For some this meant knowing what to do, whom to call or a beginning ability to anticipate interventions. This was result of their experiences with deteriorating patients and others during the residency year. This finding is consistent with other studies examining new graduate nurses' clinical decision making ability at the end of the first year of practice. Bratt and Felzer (2011) found improved perceived decision making while del Bueno's (2005) findings revealed new graduates' actual ability to critically think and make appropriate clinical judgments 66.2 % of the time. For the participants in this study, competency also meant the ability to recognize and articulate their need for help in situations of patient deterioration, including having the confidence to speak up about work assignments.

Furthermore, participants related that along with gains in knowledge and skill performance, they achieved improved abilities to relate to patients and families during times of suffering. They held a widened perspective of their contributions beyond the skill performance during deteriorating patient encounters. Such encounters were transformative to their professional identity as they discovered the salience of their own professional selves. The transformative nature of such experiences is consistent with research on nursing students' experiential learning. Situations in which novices: (a) recognized the level of nurses' responsibility and feared making a mistake; (b) acquired technical skills; (c) recognized the patient as a person; or (d) importantly, experienced

effective staff or teacher coaching were major formative events for nursing students (Benner et al., 2010). Even for two participants who worked through less than optimal nurse support (one related a negative preceptor experience; the other the lack of ongoing nurse mentor support) resulting in a difficult transition, the presence of other supportive persons facilitated their role development. They gained a perspective that it was their current work environments, not themselves, that impeded their ability to provide optimal care. These two participants were considering leaving their current positions at the end of the residency year to look for nursing positions elsewhere. This is consistent with the findings of Allen, Eby, Poteet, Lentz, & Lima (2004) in which a stronger sense of organizational affiliation and belonging is found when protégés perceive their relationship with their mentor is of high quality and psychologically supportive. This should lend perspective to health care institutions. NRPs aim to ease transition for the novice nurse while developing staff for the hospital. This did not happen for these two residents; they are considering leaving their current institutions.

Summary of Discussion

Qualitative research, including phenomenology, has long been employed as a method for studying new graduate role transition. An abundance of literature exists and numerous theories have been developed. A review of the literature revealed a void in the area specifically focusing on nurse residents' experiences of caring for deteriorating patients as they transition to role of professional nurse. Quantitative research has established that caring for a deteriorating patient remains a clinical challenge for nurse residents throughout the first year of practice however the particulars of such an experience were unknown. The findings from this study that described the lived

experience of nurse residents' as they care for deteriorating patients go beyond what is known in existing transition and role development theories.

The experience of caring for a patient who was deteriorating was clearly unlike anything these nurses had previously encountered during their education. Resulting uncertainty for the participants was similar to Fox's (1957) medical students however it was more deeply felt as the situation was viewed as high stakes for the patient and themselves. Reality shock deepened as they questioned their capability of becoming a nurse. Especially important to their development in the role of nurse during the encounter with a deteriorating patient was receiving consistent support from nurses at various levels of practice *throughout* the first year of practice. Similar to Kramer's study, preceptors were the primary socializing agents during initial encounters with deteriorating patients. Uncertainty worsened for the participant if they were criticized or intimidated by their preceptor thus impacting their overall transition. After direct preceptorship, ongoing support from nurse colleagues, nurse managers, residency educators, and the other nurse residents within their cohort was found to be essential during such encounters and in smoothing transition. In contrast, Kramer's work also identified physicians as important socializing agents and did not address the positive influence of peer engagement. Such findings may represent both disciplinary development and today's patient care complexity.

Transition theory also recognizes the importance of a supportive environment to ease transition however Schumacher and Meleis (1974) did not emphasize the role of work experience as an important knowledge source in developing technical and important relational skills for transition to practice. Similar to Light's (1979) medical residents,

participants in this study worked towards controlling their uncertainty through experience and skill development. This experience supplied them with the tools for future encounters with deteriorating patients. Finally, Benner's (1984/2001) description of advanced beginners in her well known *Novice to Expert* theory aligns well with the findings in this study however may not fully explicate the powerful, identity-forming impact of experiences with deteriorating patients.

Implications

The patterns and themes that emerged from this study provided specific information on an important aspect of new graduate transition to practice and are of significance to education, practice, administration, and research. Understanding this experience unique to nurse residents as they care for deteriorating patients during the residency year may help to inform curricula development and implementation of appropriate teaching strategies before, during and after residency. The uncertainty experienced during encounters with deteriorating patients and its deeply felt impact upon their professional role development was apparent from their narratives. A key finding was the importance of having trusted relationships with preceptors, nurse colleagues, and/or mentors. With such relationships, the nurse resident was able to synthesize experiences to develop a sense of salience during patient deterioration and importantly, develop professionally during the residency year. How they progressed in this aspect of their work impacted their overall view of themselves as nurses.

This study's findings informs nurse preceptors, educators, administrators, and staff nurses about nurse residents' journey from uncertainty to salient being during their first year of practice. As pivotal persons in new graduate transition, nurses at various

levels of practice may influence nurse residents' transition by applying such findings. Such ongoing, formal and informal support may help to ensure new graduate transition, reduce turnover, and improve patient safety. Specific implications for education, practice, and administration are presented.

Education

It is apparent from this study that there was a discrepancy between nurse residents' expectations of their ability and the reality of providing care during encounters of patient deterioration during the residency year. Nurse educators in the academic and service arenas have long acknowledged that new graduate nurses often lack the critical thinking required to practice in today's complex health care environment (del Bueno, 2005; Gillespie & Peterson, 2009; Newton & McKenna, 2007). To that end, nursing education is in the midst of transformation. One of the essential shifts called for in redesigning nursing education is movement from a focus on covering decontextualized knowledge to an emphasis on teaching for a sense of salience, situated cognition, and action in particular situations (Benner et al., 2010, p. 82). Situated learning is central to nursing practice; the development of an attuned response base practice and the ability to recognize the most pressing concern in a situation is the goal of nursing education (p. 43).

Nursing faculty must continue to develop, implement, and test innovative pedagogies that encourage student engagement and active learning. During clinical practica, the use of clinical coaching and reflection upon experiences are two strategies that may help students to "put together" the parts of a highly dynamic clinical situation. Further, in order to provide more opportunities for students to connect knowing and doing in the formation of deeper knowledge development, new clinical models such as

dedicated education units (DEU), based in situated cognition theory, have been implemented in schools of nursing. A DEU is an existing health care unit developed by academic and clinical partners that provides an environment conducive to learning and high quality care (Mulready-Shick, Kafel, Banister, & Mylott, 2009). Situated cognition theory suggests that knowledge development is naturally tied to the activity, context, and culture in which it is developed and used (Brown, Collins, & Duguid, 1989). Each new situation that allows for a concept to be called upon and reused constructs a "more densely textured form" (p. 33). Moreover, enculturation of learning may occur consciously or unconsciously as one is provided opportunities to learn in real situations and learns the behavior of members of a culture. In the clinical lab, simulation has been suggested as an important strategy to facilitate identification and management of patient deterioration. Participants in this study related that repeated exposure to patient deterioration afforded opportunities for their development. Working alongside a clinical teacher on a DEU and having increased exposure to simulated patient deterioration during undergraduate education may provide important experiential learning to better prepare new graduates for the rigors of clinical practice.

Finally, the classroom is an appropriate venue to further develop relational skills necessary for practice. Discussions of caring practices and powerful experiences that are central to student formation may help them to confront their biases and develop clinical creativity necessary in their relationships with patients, families, and other professionals (Benner et al., 2010). Furthermore, rooting discussions within the framework of nursing theory may better equip new graduate nurses to embody the essence of nursing as they

confront complex patient care situation (Donohue-Porter, 2014). An approach that interweaves theory and context is critical to identity formation as professional nurse.

Practice and Administration

Nurse residency programs have overwhelmingly been endorsed as a means to improve nurse graduate retention (Altier & Krsek, 2006; G. Anderson et al., 2012; Goode et al., 2013; Setter et al., 2011; Trepanier et al., 2012; Ulrich et al., 2010; Varner & Leeds, 2012), promote job satisfaction (Altier & Krsek, 2006; T. Anderson et al., 2009; Varner & Leeds, 2012) and develop confidence and competence (Goode et al., 2013; Ulrich et al., 2010). Despite participation in a NRP, role transition from student to the role of professional nurse persists as a difficult process for many nurse residents (Dyess & Sherman, 2009; Fink et al., 2008). Specific elements of nurse residency programs, such as ongoing support in the form of nurse mentors and residency education sessions *throughout* the first year was found to facilitate nurse residents' ability to care for patients who were deteriorating and eased their transition. Nurse residents who did not receive such support considered leaving their position and one considered leaving the profession. Such findings further support the need for a well-structured, theory based NRP. Kramer et al. (2012) suggest a two stage, Transition and Integration, NRP. In this framework, the transition stage refers to the novice's "becoming" stage of professional socialization. This is a dependent experience in which they are guided by preceptors as they practice in real-life situations. The Integration stage is marked by independent practice of the novice in which they assume responsibility and accountability for their own patients. During this time, specific activities supporting the development of competency were clinical coaching by nurses recognized as experts on the unit and monthly mentoring or coaching

sessions (Kramer et al., 2011). Negative experiences in which participants were criticized by their preceptors or those in which they did not have ongoing guidance during encounters with deteriorating patients and/or did not have support found in the monthly residency education sessions underscore not only the importance of such aspects to smooth transition but also the continued variation in current NRPs.

Critical qualities of preceptors that facilitated nurse residents' ability to care for deteriorating patients were revealed in the study's findings. Careful consideration of preceptors is essential so that preceptors are someone who is recognized as a clinical expert, is desirous of the role, and is committed to providing supervision that balances "patience for doing" with patient safety. These qualities were essential in making nurse residents feels safe and facilitated the development of their competence and confidence in caring for deteriorating patients. This is especially important at the present time. With looming nursing workforce retirements, nurse residents will increasingly comprise a larger percentage of the nursing workforce faced with increasingly complex disease processes that require astute clinical judgment.

Furthermore, the study findings revealed preceptors and others who provided ongoing coaching by promoting dialogue and reflection with nurse residents during and after the encounter with patient deterioration was essential to their growth. Such a finding extends to an implication for nursing administration. Developing and maintaining such "clinical coaches" requires ongoing training and support beyond the standard one or two day preceptor workshop. Administrators must continue to dedicate resources to this aspect of preceptor development so that expert nurses may develop into expert teachers.

Another implication of the study findings for practice relates to *ongoing* support nurse residents required during patient deterioration beyond the capacity of a preceptor. This was especially evident during the second half of the residency year in which participants relied on nurse colleagues, in addition to residency educators, and nursing leadership to further their development in the care of deteriorating patient. A more formalized 'team approach' may help to facilitate new graduate transition. Such an approach, as found in the DEU partnerships, has been supported by administrators and academe at the undergraduate level. Being welcomed and feeling valued on a DEU increases student engagement and enhances perceptions of learning (K. Ranse & Grealish, 2007). The informal ways in which nurse colleagues impart practical knowledge to novices during their interactions at the bedside and beyond were made evident in this study. Participants viewed being "rescued" when staff nurses or nurse educators provided assistance during patient deterioration. Having additional clinical mentors may fill the "support" gap revealed in some of this study's participants' stories. Currently only 92 nurse residency programs have academic partnerships (McElroy & Drescher-Crumpley, 2012).

A final implication of this study for nursing practice is related to the deeply felt impact of the experience of caring for a deteriorating patient for the participants in this study. Interpretive research, used in this study, revealed the meaning of caring for a deteriorating patient as a measure of their overall performance as a nurse. Initially, the uncertainty experienced during encounters with deteriorating patients did not end with the encounter. It extended to their role, causing them to question their capability as a nurse. The significance of participants' experiences with deteriorating patients when

combined with experiences in which nurse preceptors were intimidating or criticizing negatively impacted transition for some of the participants in this study. Nurses, preceptors, nurse educators, and administrators may incorporate this information as they work alongside nurse residents. The works of Kramer (1974), Duchscher (2009), and Benner (1984/2001) as well as other discipline specific theories offer perspectives that may positively influence NRP outcomes. Nursing is a discipline rich with tradition and theoretical foundations that offer solutions beyond the nurse-patient relationship. For example, caring theories may be used as a uniting focus for NRPs while advancing nursing science. Integrating Watson's Theory of Caring (2008) in NRPs may help to demonstrate nursing's commitment to the interconnectedness of life and shared energy in a caring moment. This may help to foster the development of a confident, knowledgeable next generation of nurses who demonstrate strong professional values. Such a caring theory approach may help to actualize a new graduate transition that begins with a welcome that consists of an appreciation of their eagerness and fresh perspective rather than an initiation that requires them to "prove themselves" thus creating undue stress and a negative view of the profession (Benner et al., 2009, p. 57). Nurses at all levels of practice may benefit when they frame situations through a nursing theory lens. Knowledge of specific nursing theoretical guides fosters effective leaders (Donohue-Porter, 2014). Such an approach is timely; nurses have been called to assume leadership positions in the transformation of healthcare (IOM, 2010).

Recommendations for Further Research

Clearly, enhanced support of nurse residents as they care for deteriorating patients, an important aspect of transition, may be one factor to further enhance

confidence, competence, and retention while enhancing patient safety. In light of the expected increase in nursing workforce retirement coupled with a building workforce shortage expected to peak in 2020, ongoing exploration of this aspect of transition is imperative.

The findings from this study indicate a need for further nursing research. One implication of the study's findings for research is related to nurse residents' perspectives in which their performance during the care of a deteriorating patient was used as a barometer of their overall progress in the residency program. They described worrying that they would appear clinically weak if they asked for assistance too early. A research study examining perceptions of preceptors as they precept nurse residents during encounters with deteriorating patients is warranted to provide clarity surrounding novices' beliefs of "proving" their ability during such highly dynamic situations. Whether the importance of a nurse resident's ability in this one type of situation is viewed the same by preceptors would advance the findings from this study.

Nurse residents' experiences of unpreparedness during initial encounters with patient deterioration highlight an urgent need for strategies to increase competency upon graduation. Simulation has been implemented as one strategy to develop competency in the context of deteriorating patients. Research supporting the effect of simulation on clinical judgment development is the next step in developing a science of nursing education. Currently studies largely focus on self-reported data or report findings from untested instruments (Prion & Adamson, 2012). Ongoing testing of suitable instruments to assess learning outcomes sensitive to educational innovations such as simulation is needed.

Finally, the findings from this study further validated the need for ongoing support in the form of nurse mentors and residency education sessions throughout the entire first year of practice and underscore continued variation in current nurse residency programs. Well-designed quasi-experimental studies comparing structured NRPs to those programs that are not structured may be of assistance to establish best practices.

Conclusions

The experience of caring for deteriorating patients, as it is lived by nurse residents, was identified as a journey from uncertainty to a salient being comprised of three patterns, dwelling with uncertainty, building me up, and a new lifeline: salient being. Nurse residents' self-evaluation of their performance during encounters with deteriorating patients was used as measure of their overall performance during the residency and shed light upon an aspect of transition. Crucial to their development in providing care to patients who were deteriorating were repeated encounters with such patients and importantly, their relationship with preceptors, nurse colleagues, and/or mentors.

This study provides understanding of the factors surrounding the experience of caring for a deteriorating patient on nurse residents' transition to professional nurse during the residency year. The uncertainty surrounding their initial encounters with deteriorating patients caused nurse residents to question their ability to "make it" as a nurse but provided them with a pivotal experience in which they began to actively build essential elements for practice.

Phenomenology as a methodology with Heideggerian and Gadamerian philosophical underpinnings were essential to understanding what it means to be a nurse

resident caring for a deteriorating patient during the first year of practice. The findings within *The Journey from Uncertainty to Salient Being* were achieved by using rigorous procedures and adhering to the methods as outlined by Diekelmann. The findings from this study enhance new graduate role transition theories and underscore the need for further research into this aspect of role transition.

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Appendix A

Demographic Data Sheet

Pseudonym: _____

Age: _____ Sex: _____

Hospital: _____

Clinical Unit: _____

Date of hire into nurse residency program: _____

How long is your residency program? _____

How many months have you been precepted during the nurse residency program?

_____

Date of graduation from nursing school: _____

Nursing Degree: Circle one: Bachelor's Associate's

Do you have any additional clinical experiences outside of your nursing program? For example: working as a Certified Nursing Assistant (CNA) or Emergency Medical Technician (EMT).

Yes _____ No_____

If yes, in what capacity did you function and for how long? _____

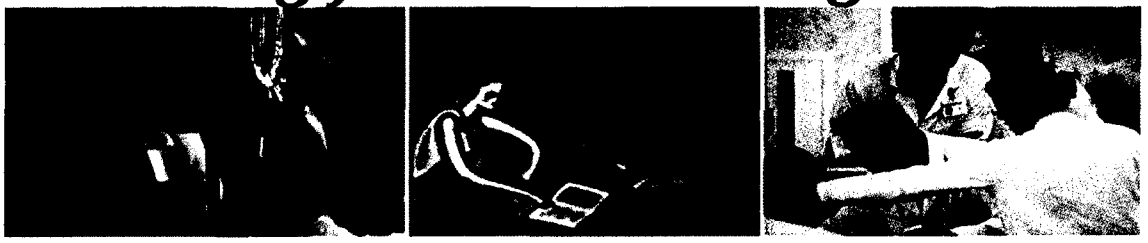
_____

_____

Appendix B

Recruitment Flyer

Volunteers Wanted for a Research Study on *Nurse Residents' Experiences of Caring for Deteriorating Patients*



STUDY PURPOSE

The purpose of this study is to explore nurse residents' experiences of caring for deteriorating patients. The intent is to develop knowledge of the unique needs of nurse residents to be used for ongoing nurse residency program updates.

ELIGIBLE NURSES

If you are a nurse resident or have completed your residency within the past year and have had this experience, you are eligible to participate. If you agree to participate, I will conduct an interview with you lasting no more than 60-90 minutes. The interviews will take place in a private office, outside of your work environment at a time and location of your convenience. All data will be kept confidential.

In appreciation of your time, you will receive a $20 Starbucks gift card.

ABOUT ME

I am a PhD candidate at Adelphi University completing my doctoral dissertation.

IF INTERESTED

Contact me at the email address below and leave your preferred contact information.

caroldellaratta@mail.adelphi.edu

Appendix C

Semi-Structured Interview Guide

1. What has it meant to you to be a nurse resident?

   What experiences have been important to you? Why?

   Tell me about difficult experiences in the nurse residency program.

   What expectations did you have regarding the program before you started? Now?

   What has changed?

2. Tell me about a time during your nurse residency when you cared for a patient whose clinical status was deteriorating.

   What meaning did this specific experience have for you? Why?

   Was this the first such experience or one that sticks out in your mind? (Why has this experience stayed with you?)

   What influenced your interpretation that this was a "deteriorating" patient?

   What was the most difficult aspect of this experience?

   What do you remember most about how you felt? What did that do for you?

   Was there support for you? (Who? When?)

   What were barriers to your care during this experience?

   How did you deal with your feelings? (Especially if emotional or problematic)

   Looking back, what else might you want to share with me about this experience?

3. I'd like to talk more specifically about your preceptor during this experience.

   What has the preceptor role meant to you during the residency?
   and during this experience?

   Was the preceptor able to meet your needs during this experience?

Looking back, what specifically do you think you needed from him/her?

How did you handle what you needed and perhaps did not get? Do you remember how that made you feel?

4. Given other experiences in your life, how does this experience compare?

5. What do you think is the best way to support nurse residents to care for patients with deteriorating statuses? What meaning has this experience had for you?

Appendix D

Adelphi University Informed Consent

IRB Protocol Title: Nurse Residents' Experiences of Caring for Deteriorating Patients

Principal Investigator: Carol Della Ratta

Phone: **(631) 235-5933**

Email: **caroldellaratta@mail.adelphi.edu**

Faculty Advisor: Dr. Jane White

Phone: **516-877-4599**

Email: **WHITE@adelphi.edu**

Research Purpose

The purpose of this study is to examine nurse residents' lived experiences of caring for a deteriorating patient. A deteriorating patient is a hospitalized patient demonstrating instability of physiologic or disease status. Specifically, changes in vital signs, oxygenation status and/or alteration in level of consciousness, are used to denote severity of illness and mortality.

Description of the Research

The goal of this study is to understand the unique needs of nurse residents' as they encounter patients with deteriorating clinical statuses. A doctoral student from Adelphi University will conduct a one-hour interview with you. You will be asked to complete a demographic form prior to the interview. This form asks you questions about yourself and your educational preparation for your registered nurse (RN) license. The second part is about your experience of caring for a patient whose clinical status was deteriorating. This part will be audio-recorded. All of the information that you give the researcher is confidential. You may withdraw from the interview at any point. Your name will not be

used and you may choose a name to use (pseudonym). Completion of this form, the demographic form and the interview will take no longer than one and one-half hours.

Potential Risks

The primary risk to participants is the possible anxiety or emotional stress that you may develop during the interview because of discussions of a potentially emotional experience. Barbara R. Sprung DNP, RN, NPP, PMHCNS-BC at 631-979-9720, certified therapist is available if needed and requested.

Potential Benefits

Possible benefits of participation may include the therapeutic effects of telling one's story.

Costs/Compensation

As a token of appreciation for participating in the study, all participants will receive a $20 Starbucks gift card.

Contact Persons

If you have any questions, at any time, about this research, or want to discuss any possible study-related injuries, please contact Carol Della Ratta at the following confidential telephone number **(631) 235-5933.**

Confidentiality

Your confidentiality is ensured as you will use a pseudonym and all demographic data sheets and transcription documents will be labeled only with this name. The interview will take place in a private area and the audio-recording will be saved to a device with a security number known only to the researcher. Demographic data sheets and transcripts of the interview will be kept in a locked cabinet in the researcher's office. You may withdraw from this study at any point, including after the interview is finished.
Your identity as a participant in this research study will be kept confidential in any publication of the results of this study. The information obtained from this research will be kept confidential to the extent permitted by law. However, the research record may be

reviewed by the Institutional Review Board (the committee that oversees all research in human subjects at Adelphi University) if required by applicable laws or regulations. The material will be maintained for up to 7 years.

Voluntary Participation

Participation in this study is voluntary. If you decide not to participate, this will not affect your employment in the nurse residency program. Any new information that develops during this study, which might affect your decision to participate, will be given to you immediately. A signed copy of this consent form will be given to you.

Institutional Review Board Approval

This research has been reviewed and approved by the Adelphi University Institutional Review Board. If you have any questions, concerns or comments, please contact Dr. Julie Altman, 516-877-4344 or altman@adelphi.edu.

Signature

Study Coordinator

Print Name_____Signature_____Date_____

Study Participant

Print Name_____Signature_____Date_____

Consent for audio recording

My participation in this research project will be audio-recorded. I consent to the recording of my voice. The recording will be used for research purposes and the data will be treated in the same manner as the aforementioned data.

Signature of Participant _____

Figure 1

TANNER'S CLINICAL JUDGMENT MODEL

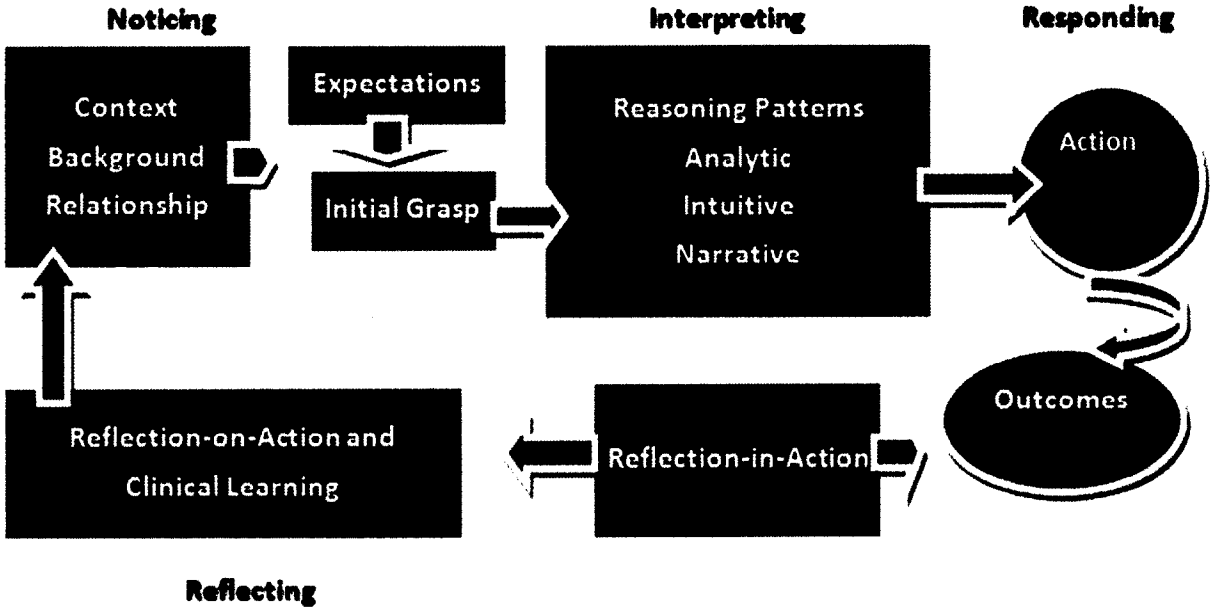


Figure 1 – Clinical Judgment Model (Tanner, 2006)