Immigrating in Nursing: A Grounded Theory of how nurses process their professional practice specialization within the pharmaceutical/biotech industry

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ABSTRACT OF THE DISSERTATION

Immigrating in Nursing: A Grounded Theory of how nurses process their professional practice specialization within the pharmaceutical/biotech industry

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Rationale for the study: Despite the fact that nursing shortages have been reported for a prolonged period of time across all traditional practice settings within the US (Buerhaus & Staiger, 1999; Buerhaus, Staiger & Auerbach, 2000; 2003; 2009), there has been a growth in the number of nurses employed within the non-traditional practice setting of the pharmaceutical/biotech industry. The literature is void of both qualitative and quantitative studies that address the perspective of nurses who pursue professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry. Understanding how nurses within the pharmaceutical/biotech industry perceive their professional practice may help illuminate the importance of characteristics of non-traditional practice settings. Methodology: Classic Grounded Theory was used to examine the process that nurses undertake to restore, support, and foster their professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry. Rutgers University IRB approval was obtained prior to study initiation. Fifteen participants were interviewed regarding their perspectives of the decision-making process surrounding their migration and establishment of professional practice from traditional practice settings into the non-traditional practice setting of the pharmaceutical/biotech industry. All participants met
eligibility criteria. All interviews were recorded and transcribed verbatim. This data was analyzed using constant comparative analysis as described by Glaser (1978). Results: The theory which emerged from the data is a four phase process which includes: Becoming Disillusioned, Acclimating into the Corporate Role, Achieving Belonging, and Nursing Specialty Actualization. Immigrating in Nursing is the Core Category which explains how participants resolved their main concern: to restore, support, and foster their professional practice in the non-traditional practice setting of the pharmaceutical/biotech industry. Conclusion: The study findings illuminate the challenges, milestones, and achievements that nurses within the pharmaceutical/biotech industry consider integral to their professional practice development and specialty actualization. The inside views of the choices and actions made by each participant in this study demonstrated many of the reasons why nurses within the pharmaceutical/biotech industry value their professional practice and the public health advancement and advocacy that they undertake.
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Chapter I: Introduction and Theoretical Background

During her first month of employment in the pharmaceutical/biotech industry the nurse team member attended a project team meeting for review of the latest clinical trial results. The composition of the physician-lead project team included team members from a variety of non-clinical backgrounds with a range of informal or formal research experience. Each began reporting on their job-specific focus areas. Moments into the meeting, the nurse team member realized that the team member presenting was basing selection of clinical trial sites for upcoming clinical trials upon most favorable overall titers of participants from these sites. The selective use of sites that exhibit more favorable results would reflect a higher concentration of specific ethnic participants discovered to be more sensitive to the new product. It was clear that the presenter did not understand the ethical concerns or bias that this method of selection posed to the eventual results of testing of the new product (M.K. Reeves-Hoche, RN, PhD, personal communication, May 16, 2003). This method of site selection would reflect the trial participant response to the product as potentially much higher than it truly would be and would lead to potential overestimation of product effectiveness as well as the underestimation of safety concerns due to inadequate representation of other ethnicities based upon such a skewed sample (Spilker, 1996). What additional sensitivities or hyporesponse to the product would be missed if a sample was selectively chosen as suggested (Spilker, 1996)? The newly appointed nurse team member quickly explained the aforementioned ramifications that would arise from this technique and the value of the nursing viewpoint was instantly solidified on the team in ascertaining risks to human subjects and future patients both within current ongoing clinical trials and
planned trials as well as within future licensed indications. Based upon communication from this first project team, invitations soon followed from multiple additional teams for nursing consultation and involvement and additional RN roles continued to expand within the company (M. K. Reeves-Hoche, RN, PhD, personal communication, July 2, 2004). This experience appears to not be an isolated incident but instead a growing trend concerning the migration of nurses from traditional practice settings to employment within the pharmaceutical/biotech industry (U.S. Department of Health and Human Services, 2006).

Despite the fact that nursing shortages have been reported for a prolonged period of time across all traditional practice environments within the US (Buerhaus, Auerbach, & Staiger, 2007; Buerhaus, Donelan, Ulrich, Kirby, Norman, & Dittus, 2005; Buerhaus & Staiger, 1999; Buerhaus, Staiger, & Auerbach, 2000; 2003; 2009; Ulrich, Buerhaus, Donelan, Norman, & Dittus, 2005), there has been a growth in the number of nurses employed within the pharmaceutical/biotech industry. The most exhaustive source of statistics on all registered nurses with current licenses in the United States is undertaken every four years to assess the current nursing workforce status by the National Sample Survey of Registered Nurses (NSSRN) (U.S. Department of Health and Human Services, 2006). This survey provides data on the estimated number of RNs, their educational background and specialty areas, their employment status including the setting type, position, level, salaries, geographic distribution, and demographic characteristics. The NSSRN has been conducted by the Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, DHHS since 1975. While only preliminary data are available for 2008, the data from 2004 reflects the
employment area of the pharmaceutical and biotech industry as included within the
category of “Other” along with a miscellaneous grouping of settings. Prior to 2004,
there was no delineation or acknowledgement of this area as a potential career
employment choice. Baseline attention has been achieved for this group of nurses
although the increase in the percent of nurses employed in the “other” category has
doubled in four years from 4.1% in 2000 to 8.5% in 2004. Further detail is not
available as to the portion attributed to the pharmaceutical and biotech industry
specifically. Although the U.S. Department of Labor, Bureau of Labor Statistics states
that its mission is to maintain ongoing tracking of registered nurse employment,
pharmaceutical or biotech industry nurses are not specifically categorized or defined as
a specialty group that is tracked in order to offer additional detail to the NSSRN
identified trends.

The accuracy of tracking estimates and expanse of sheer numbers of
pharmaceutical/biotech industry nurses are unknown. It has been noted in the literature
that nurses are drawn to and retained in work environments incorporating valued
characteristics. The presence or absence of supportive attributes within the work
environment of the pharmaceutical/biotech industry is unknown as are any congruence
of attributes within the non-traditional work environment of the pharmaceutical/biotech
industry to those deemed essential within traditional settings.

Job satisfaction of nurses employed within the pharmaceutical/biotech industry
is not documented in the literature. No research studies of the work environment or job
satisfaction experienced by nurses within the pharmaceutical and biotech industries in
the United States were located using the search terms: Pharmaceutical Nurses, Biologic
Nurses, Industry Nurses, Pharmaceutical or Biologic Industry Nurse, Biotech Nurses, Biotech Industry Nurses, job satisfaction, and work environment upon searching data bases including: CINAHL, Medline, Pre-CINAHL, BIOSIS, PROQUEST, Health Source: Nursing/Academic, General Science Abstracts, and Science Citation Index Expanded.

Although no studies exploring the practice environments and/or job satisfaction of nurses in the pharmaceutical/biotech industry exist, the number of nurses employed in the pharmaceutical/biotech industry has increased. Understanding how nurses within the pharmaceutical/biotech industry perceive support for their professional practice may help illuminate the importance of characteristics of non-traditional work environments.

A. The Concern to be addressed

The concern to be addressed by this study is the need for a greater understanding of how nurses within the pharmaceutical/biotech industries perceive their professional practice.

B. The Phenomenon of Interest

The phenomenon of interest is the process and related concerns through which nurses within the pharmaceutical/biotech industry perceive their professional practice.

1. Definition of terms

Nursing Practice- “The collective professional activities of nurses characterized by the interrelations of human responses, theory application, nursing actions, and outcomes” (ANA, 2010, p. 64).
Practice Setting – For purposes of this study, the practice setting is defined as the venue in which nurses conduct their nursing practice.

Traditional Practice Settings- For purposes of this study, traditional practice settings are defined as the predominant historical venues in which nurses conduct their nursing practice including but not limited to hospitals, home health, long term care facilities, schools, clinics, and provider offices.

Pharmaceutical or Biotech Industry Nurse- For purposes of this study, a Pharmaceutical or Biotech Industry Nurse is defined as a registered nurse: 1) Employed in a clinical role within the drug or biotech development industries by a sponsor (Pharmaceutical or biotech manufacturer), contract research organization (CRO), or Site Management Organization (SMO) and 2) Maintaining current professional membership in an industry related professional development group such as the Association of Clinical Research Professionals (ACRP) or the Society of Clinical Research Associates (SOCRA) or pursuing industry related professional development.

The pharmaceutical/biotech industry nurse engages in clinical trial oversight for products in development through various responsibilities including protocol development, site management, site monitoring, quality assurance, clinical study report evaluation, and study or program management. These responsibilities are conducted with careful compliance to Good Clinical Practices (GCP) as outlined in the U.S. Code of Federal Regulations (CFR, 2010) and International standards (International Conference on Harmonization, 1997) (ICH) as well as a strict ethical code of conduct. While nurses traditionally choose employment settings that focus on a patient population of interest or a level of care (primary, tertiary, etc.), nurses within the
pharmaceutical/biotech industry engage in global application of critical thinking and decision-making skills surrounding the clinical testing of new pharmaceutical or biotech products on human subjects both prior to and following licensure (M.K. Reeves-Hoche, RN, PhD, personal communication, October 24, 2003). This decision-making revolves around ensuring the protection of not only the subjects enrolled within current trials but also the greater impact on public health. Decisions that are commonly addressed include: standardization (per protocol) measures to be employed within the trials, the emergence and interpretation of any confounding data, factors that may impact safety or immunogenicity/efficacy, and problem solving when deviations (protocol violations) occur. Continual evaluation of the integrity of the research process is central to the nurse’s role (M.K. Reeves-Hoche, RN, PhD, personal communication, August 22, 2003). The realization for these decisions is that any current study participant or future patient that is administered the therapy may be harmed if the safety and efficacy has not been meticulously evaluated. It is the nurse’s responsibility to advocate in collaboration with the clinical team leader, principal investigator (PI), or MD for the protection of every participant and patient via their respective nursing lens throughout the research process.

C. The Purpose of the Research

Grounded theory begins with identification of a problem necessitating further exploration. The ultimate goal is discovery and exploration of underlying basic sociological processes (Strauss & Corbin, 1998). In areas where little is known, the grounded theory method is a suitable approach. Nurses within the pharmaceutical and biotech industries serve as inherent guardians to safeguard the public through the
oversight of clinical trials, assurance of safety, immunogenicity, and quality, and strict adherence to professional ethics; yet little is known about their perspective of this work. The research question addressed within this study was: How do nurses within the pharmaceutical/biotech industries perceive their professional practice?

The purpose of this research is to develop a substantive theory that will describe and explain how nurses within the pharmaceutical and biotech industries perceive their professional practice.

D. Significance of the study

The significance of the study is determined by the following four aspects. First, the study addresses a critical problem in the field. Little is known about why nurses choose to leave traditional roles to work in the pharmaceutical or biotech industries because the perspectives of this cohort of nurses have not been investigated. Understanding why nurses leave traditional roles to work in this non-traditional work environment may impact administration and workforce planning concerning this important portion of the nursing workforce. Differences exist in working conditions and in role responsibilities when contrasting traditional nurse employment settings and the pharmaceutical/biotech industry. The shift work associated with traditional practice settings is not typical to the hours of work within the pharmaceutical/biotech industry setting. Typically this industry observes business hours of operation for nurse clinical functions and roles. Other differences that separate the pharmaceutical/biotech industry from traditional nurse work settings include the expanded opportunities for promotion and training within this specialty area as federal regulations require documentation of
job specific and general ongoing annual training (21 CFR 200; 21 CFR 600; 21 CFR 800). This training is provided or paid for by the pharmaceutical/biotech industry employer as operations will be jeopardized if noncompliance detected by federal authorities suggests a lapse of competence in personnel (Anicetti, 2010). Any suggested lapse in competence directly raises questions related to the quality of products triggering federal action (Anicetti, 2010). Due to the expanded requirements for ongoing training, opportunities for promotion are also expansive. The level of awareness of nurses from traditional work environments to the differences related to employment within the pharmaceutical/biotech industry is not known.

Second, the study may impact practice in the field of general nursing practice. Nurses within the pharmaceutical/biotech industry conceivably impact every aspect of healthcare. Their decisions and actions directly influence the lives of clinical trial participants as well as the lives of every future patient or consumer of the eventually licensed drug, vaccine, blood product, or other therapeutic agent. The nurse’s meticulous assurance that each new product is administered and monitored consistently in every clinical trial participant for any safety or immunogenicity concerns affords each participant confidence in their decision to enroll, access to cutting edge clinical therapies, and the security of additional health supervision and advocacy during their trial participation (ICH, 1997). Without the conduct of these clinical trials, additional therapies would not become available and the hope of future cures would cease to exist. The licensure and regulation of all pharmaceutical and biotech therapies is directed by the Food and Drug Administration (FDA). The FDA delineates an extensive set of requirements that must be evidenced for every new drug or biotech licensure application
Immigrating in Nursing

(21 CFR 312; 21 CFR 812). The systematic conduct of clinical trials is detailed within these requirements in the Code of Federal Regulations (CFR, 2010). Any omissions or deviations from the aforementioned regulations may result in a denial of the license and the inability to access these therapies within the United States. General nursing practice benefits from continual advancements in available therapies as the outcomes of this specialty work. The findings of this study may also inform the recruitment and retention activities of the pharmaceutical/biotech industry in their efforts to ensure a continuous and adequate workforce.

Third, the study may offer new insights to why nurses seek out the specialty area of the pharmaceutical and biotech industries and how their professional practice is perceived in this non-traditional work environment. Nurses execute and safeguard complex clinical research for the development of pharmaceutical and biotech products (21 CFR 312, 2010; 45 CFR 164-HIPAA, 2010; ICH, 1997). The meticulous and diligent oversight of the clinical trials is done with the realization that any deviations in method of administration, monitoring for safety, and follow up in data collection may jeopardize the integrity of the data (Spilker, 1996). This data serves as the evidence within the clinical trials to demonstrate the safety and immunogenicity of the new drug or biologic product or device. This evidence is the body of the licensure application and will be scrutinized for assurance of methods and claims to protect the eventual patients for which it will be indicated. Any doubt of integrity of this evidence will deny the licensure of the new pharmaceutical or biotech product thereby potentially impacting public health through unavailability of new therapies for indicated patients. With meticulous oversight, the products of this complex clinical research are licensed and
marketed for distribution as the pharmaceutical and biotech treatments/therapies used in traditional practice environments thereby directly impacting public health.

Fourth, the study may impact theory. One approach to career employment choices is based on the theory that the closer the match between individuals’ skills and their work environments, the greater their job satisfaction. John Holland (1997) contributed theoretical and practical research to the manner in which career assistance is delivered around the world. One theory Holland described, a theory of the match between different personality types and work environments, attracted little attention. This study, an investigation of individual’s career choices and their chosen work environments, may contribute to theory as well as to the understanding of how nurses employed within the pharmaceutical/biotech industry rather than traditional healthcare environments perceive their professional practice.

The intended audience of this research are the nurses currently practicing within the pharmaceutical/biotech industry, nurse researchers, nurse administrators, nurse educators within nursing education programs, and the discipline at large in order to acknowledge this specialty group of nurses, raise awareness of their existence and concerns, stimulate expanded research into the roles and practice area, and develop curriculum that will address this career development option. Pharmaceutical and biotech industry decision makers are an additional intended audience as their recruitment and retention activities may be further informed by the findings to ensure that an adequate workforce is maintained in this setting. Nurse researchers and nurse administrators will benefit from understanding how nurses perceive professional practice in the pharmaceutical/biotech industry as they begin to compare and contrast
work environments and working conditions that may be of importance in the reasons for nurse migration to this specialty area. Applicability and transferability of novel and non-traditional working conditions may be of value to traditional practice environments plagued by the nursing shortage. Nurse educators within nursing education programs will benefit from understanding how nurses perceive support for their professional practice within the pharmaceutical/biotech industry in order to expand the continuing education and career development offerings within their programs as well as in forming new partnerships and internships with industry to provide cutting edge career paths for new and returning nurses to explore. The ability of nursing programs to demonstrate and publicize their sensitivity to and expertise in preparing nurses for the ever-expanding future healthcare arenas is a strong emphasis for driving enrollment and differentiating programs. The discipline of nursing will benefit from understanding how nurses perceive their professional practice within the pharmaceutical/biotech industry as they gain a greater awareness of their career development options and become renewed in the knowledge that their education and skills are valued within a novel non-traditional practice environment. The product of this research study will be a grounded theory that explains the realities and main concerns of how nurses perceive their professional practice within the pharmaceutical/biotech industry.

E. Summary

No research has been identified that explores and defines how nurses within the pharmaceutical/biotech industry perceive their professional practice. An examination of how nurses in the pharmaceutical and biotech industry perceive their professional practice from the perspectives of these nurses may lead to generation of a theory to
facilitate understanding of how nurses support their professional practice in the pharmaceutical/biotech industry.

The existing body of research in nursing focuses on traditional practice environments and associated concepts of relevance. This focus on traditional practice environments has uncovered reasons that nurses choose employment in some traditional settings rather than other settings. Researchers have demonstrated that the presence of key organizational characteristics relating to administration, professional practice, and professional development were crucial to the success of nurse recruitment and retention efforts (McClure, Poulin, Sovie, & Wandelt, 1983).

No information has been found explaining perceived professional practice of nurses in the pharmaceutical/biotech industry. A naturalistic study from the perspective of nurses within the pharmaceutical/biotech industry will shed light on the how nurses in the pharmaceutical/biotech industry perceive their professional practice. Understanding how nurses perceive their professional practice within the pharmaceutical/biotech industry may result in a grounded theory that explains factors that support professional nursing practice in this non-traditional work environment.
Chapter II. Review of the Related Literature

The review of the literature examines the psychological theory of vocations (Holland, 1958) as well as sociological theories of organizations and professions (Flood & Scott, 1987; Karasek & Theorell, 1990; Shortell & Kaluzny, 1994; Strauss, 1975), the subsequent nursing reconceptualization of these theories in the professional workforce model (Aiken, Smith, & Lake, 1994) and the hallmarks of the professional nursing practice environment (AACN, 2002). Nurse practice environments are explored within traditional practice settings as no studies were found of nurse professional practice in the pharmaceutical and biotech industry. Grounded theory is reviewed as the appropriate paradigm for carrying out the study.

A. Purpose of the Literature Review in Grounded Theory

Initially Glaser and Strauss (1967) maintained that conducting an *a priori* literature review was a violation of methods. They asserted that in order for theory to emerge from the data without contamination from theories of different areas, the literature on the topic must be literally ignored by the researcher. In later conceptualizations Glaser (1978; 1998) reinforced this assertion in order to foster inductive reasoning but to also reject integration of preconceived concepts which essentially suppress discovery of the main concern of participants. The tenets of grounded theory require that the researcher remains open and theoretically sensitive to the emergence of a completely new core category that may not have been evidenced within the literature (Glaser, 1998). Toward this end, this literature review is presented with the intent to situate the phenomenon of interest and to build the argument for the
need for this study. Strauss and Corbin (1998) suggested that the researcher typically does have some awareness of the state of the literature prior to initiating an inquiry. Supporting Strauss and Corbin (1998), Denzin and Lincoln (2008, p. 208) stated, “No analysis is neutral despite research analysts’ claims of neutrality. We do not come to our studies uninitiated.” In accord with Glaser’s (1998) assertion, the literature review was expanded during the data analysis process to further define the emerging core category. Relevant literature was investigated once basic conceptual development was underway. Literature in the field assisted the researcher to reconcile and integrate the emergent grounded theory demonstrating the contribution and fit (Glaser, 1998).

B. Background of the Phenomenon

No research studies describing how nurses within the pharmaceutical/biotech industry perceive their professional practice were located using the search terms: Non-traditional nursing practice, Traditional nursing practice, Pharmaceutical Nurses, Biologic Nurses, Industry Nurses, Pharmaceutical or Biologic Industry Nurse, Biotech Nurses, Biotech Industry Nurses, nursing specialty work environment, and non-traditional work environment upon searching data bases including: CINAHL, Medline, Pre-CINAHL, BIOSIS, PROQUEST, Health Source: Nursing/Academic, General Science Abstracts, and Science Citation Index Expanded. Although an extensive body of literature exists related to the work environment of nurses within traditional practice environments such as hospital, long-term care, and home health settings, no studies address factors that nurses within the non-traditional practice environment of the pharmaceutical/biotech industry perceive as supportive to their professional practice.
C. Professional Practice Environments

A variety of terms have been used interchangeably to signify organizational culture within and among disciplines. The nursing literature reveals phrases such as “nursing practice environment,” “professional nurse practice environment,” “clinical practice environment,” and “practice environment,” as the predominant terminology (Aiken & Patrician, 2000; Grindel, Peterson, Kinneman, & Turner, 1996; Hoffman & Martin, 1994; Tumulty, Jernigan, & Kohut, 1994). All refer to organizational culture and have essentially referred to traditional work environments.

John Holland, a vocational psychologist, believed that people were more likely to be successful in a career in which the practice environment matched attributes and characteristics valued by the individual (Holland, 1958; 1959; 1962; 1968; 1973; 1985; 1997). Holland (1997) stated that people search for environments that allow them to use their skills and talents and are congruent with their attitudes and values. He further purported that environments in turn search for people via recruiting practices and alliances. Holland (1997) contended that career satisfaction, stability, and success are dependent on the match between personality and the work environment. Although Holland developed an untested way of operationalizing environmental identity, the Organizational Focus Questionnaire, his ideas about the work environment remain untested.

The qualities setting apart highly successful and professional nurse work environments have been linked within organizational attribute theories. Organizational attribute theories have had a long history in sociological theory (Flood & Scott, 1987; Friedson, 1970; Strauss, 1975). Flood and Scott (1987, p. 353) contend that,
“Organizational context and the provision of a supportive and constraining environment within which to engage in state-of-the-art professional practice may be a more significant contributor to the quality of work than the type of past training or length of prior experience”. Organizational attribute models related to professional nursing practice are grounded in the magnet hospital studies commissioned by the American Academy of Nursing in the early 1980’s (McClure et. al., 1983). Linked within a professional workforce model, the research confirmed key organizational features that characterized a common core set of values among nurses in the U.S. These “Essentials of Magnetism” include: 1) maintaining a clinically competent nurse workforce; 2) maintaining good nurse-physician relationships and communication; 3) providing competent and supportive managers; 4) ensuring autonomy; 5) facilitating nurses’ input into clinical and policy decisions; 6) creating flexible scheduling; 7) offering support for education; 8) staffing nurses adequately; and 9) adopting a patient-centered philosophy that provides high quality care. The presence of these attributes has been associated with positive client and nurse outcomes. Theorists propose that the presence of these core attributes may vary across practice venues (Kramer & Hafner, 1989; Kramer & Schmalenberg, 1988a; 1988b; 1991; 2002). The manifestation of core organizational attributes within non-traditional practice environments is unknown.

In order to assist nurses to locate a practice environment essential to long term success and job satisfaction as a nurse, the American Association of Colleges of Nursing issued a white paper entitled, “Hallmarks of the Professional Nursing Practice Environment” (AACN, 2002). The position statement was written with the intent to be applicable to all professional practice settings and all types of nursing practice.
Categories perceived to be critical to positive practice environments include: 1) a philosophy of quality care; 2) recognition of nurse contributions; 3) promotion of nurse leaders; 4) empowerment of nurses; 5) professional advancement opportunities; 6) professional development support; 7) collaborative inter-disciplinary relationships; and 8) utilization of technological advances and resources. The aforementioned hallmarks reflect and are consistent with the traditional practice environment attribute literature (Aiken, et. al., 2001; Best and Thurston, 2004; Blegen, 1993; Demerouti, Bakker, Nachreiner, & Schaufeli, 2000; Flynn & Deatrick, 2003; Gelsema et. al., 2006; Laschinger & Finegan, 2005; Laschinger & Havens, 1996, 1997; McCloskey, 1990; McClure & Hinshaw, 2002; Tumulty et. al., 1994) with differences noted in terminology and the exclusion of traditional attributes of: creating flexible scheduling and staffing nurses adequately, but the addition of the category of utilization of technological advances and resources. The importance of these attributes or hallmarks in the support of professional practice for nurses within the non-traditional practice environment of the pharmaceutical/biotech industry remains unknown.

1. Philosophy of quality care

The various hallmarks of the professional nursing practice environment have been documented separately within the traditional practice environment literature as strong predictors or significantly associated with the concepts of nurse job satisfaction or turnover intentions evidencing the close association with attraction and retention of nurses. The hallmark category of, “A philosophy of quality care” has been noted within the literature with differing terms but similar definitions. The overarching mission of the organization and the sincere desire to uphold and adhere to that mission was a
prevailing theme within the body of research. Nurse respondents described the critical nature of “a patient-centered mission and vision” when examining their own professional practice and job satisfaction within the home health setting (Flynn & Deatrick, 2003). The use of open-ended questions within a quantitative survey-based study served to illuminate the importance of “making a difference” and “quality patient care” among Canadian hospital specialty unit nurses (Best & Thurston, 2004). The qualitative responses revealed respondents’ most satisfying work aspects and most desired work changes. The research design was in parallel with the predominant body of research in quantitatively validating pre-determined work environment factors known to impact job satisfaction, however the authors acknowledged that the open-ended questions provided valuable complementary data to their survey-based research and recommended further exploratory studies of the relationships between workload and work life variables (Best & Thurston, 2004). Additionally the subjective comments elicited were incorporated into the planning process for implementing changes.

While the qualitative responses of nurses have yielded greater knowledge regarding the positive impact of quality care on nurse satisfaction, the impact of nurse satisfaction on quality of care has also been noted as a theme within the literature. McNeese-Smith (1999) noted that factors fostering job satisfaction included patient care while job dissatisfaction was primarily influenced by factors that interfered with the job and patient care including feeling overloaded among 30 staff nurses employed in the traditional practice environment of a university hospital in California. Nurse respondents also described their concern with maintaining quality of care within large hospital based samples when examining the effects of nurse staffing and organizational
support for nursing care on nurses’ dissatisfaction with their jobs, burnout, and quality of patient care (Aiken, Clarke, & Sloane, 2002). Job dissatisfaction was associated with work environment deficiencies that interfered with the ability to uphold and provide quality care including inadequate staffing levels, perceived low support from management, and lack of access to institutional decision-making. Nurses working in hospitals with poor organizational support for nursing care and low staffing were twice as likely to report dissatisfaction with their job and three times as likely to report nurse perceived concerns of quality of patient care (Aiken, et. al., 2002). The effects of work environment characteristics such as nurse staffing may affect quality of care related to patient outcomes and thereby nurse satisfaction. Nurses in hospitals with the highest patient-to-nurse ratios were more than twice as likely to experience job dissatisfaction and burnout as compared with nurses in the hospitals with the lowest ratios (Aiken, et. al., 2002). Logistic regression analysis revealed higher emotional exhaustion and increased job dissatisfaction were strongly and significantly associated with patient- to nurse ratios (Aiken, et. al., 2002). These findings likely reveal the nurses’ awareness and sense of responsibility for maintenance of quality care provision despite deteriorating work environment conditions.

In 1995, the American Nurses Association established that job satisfaction be measured as one nurse-sensitive indicator reflecting nursing’s contribution to quality patient care (ANA, 1995). It has been shown that traditional practice environments where nurses experience a high degree of job satisfaction report higher quality of care and better patient outcomes. Within 39 “magnet” hospitals, patient mortality rates were significantly lower compared with mortality rates in 195 matched control hospitals
(Aiken, et. al., 1994). With regard to the close association with higher levels of quality of care and improved patient outcomes, job satisfaction has been cited as a critical concern among employers and nurses within traditional practice environments (Kovner, Brewer, Wu, Cheng, & Suzuki, 2006). Job satisfaction, defined as employee feelings about their job in general, included satisfaction with multiple elements of work such as conditions, management, opportunities, remuneration, and work practices (Spector, 1997). Similar trends have been reported among nurses (Fletcher, 2001; Lyons, Lapin, & Young, 2003; American Nurses Association, 2005; Kovner, et. al., 2006).

Job satisfaction has been associated with both personal and environmental antecedents and consequences (Spector, 1997). Significant positive relationships have been noted between job satisfaction and autonomy, recognition, communication with supervisors, peer communication, professionalism, years of experience, organizational commitment, age, and fairness (Blegen, 1993). Significant negative correlations have been noted between job satisfaction and education, personal locus of control, stress, and routinization with strongest relationships between job satisfaction and stress and job satisfaction and commitment. The findings are limited to correlates that promote nurse satisfaction within traditional practice environments including hospitals, long term care, public, district, state, and outpatient settings (Blegen, 1993).

Researchers used meta-analyses to describe further support for the causal relationships among job satisfaction, behavioral intentions, and nurse turnover behavior (Irvine & Evans, 1995). Turnover was negatively related to job satisfaction while satisfaction with one’s job confirmed an inverse relationship with behavioral intentions.
indicating the desire or plan to change jobs (Irvine & Evans, 1995). Nurses who reported satisfaction were unlikely to report intentions to leave their jobs.

Literature addressing the factors associated with the retention of nurses has been frequently termed organizational commitment and turnover was described as intention behavior. Organizational commitment has been defined as a strong belief in and acceptance of an organization’s goals and values, a willingness to support and further the organization, and a strong affinity and drive toward organizational membership (Mowday, Steers, & Porter, 1979). Organizational commitment has been cited as a critical concern among nurse employers in traditional practice environments and has been studied extensively. Organizational commitment among nurses has been linked to job satisfaction (Gurney, Mueller, & Price, 1997), supervisor support (McNeese-Smith & Crook, 2003), and turnover intentions (Irvine & Evans, 1995) within traditional practice environments.

Levels of organizational commitment are of particular interest to nurse employers in the form of turnover rates and intentions in the stabilization of their respective workforce. In an effort to improve the recruitment and retention of nurses, traditional practice environments, such as hospitals, have become increasingly aware of decades of research indicating that when healthcare organizations are characterized by attributes that support professional nursing practice environments these organizations experience superior nurse retention, nurse job satisfaction, and lower levels of nurse burnout than organizations that do not have these supportive attributes in place. Identification of these key facets was the focus of the seminal “magnet” hospital studies initiated over 25 years ago (McClure et. al., 1983). The term “magnet” hospital was
used within these studies to identify hospitals that outpaced neighboring hospitals in the recruitment and retention of nurses despite nation-wide critical shortages. These researchers demonstrated that the presence of key quality organizational characteristics relating to administration, professional practice, and professional development were crucial to the success of nurse recruitment and retention efforts (McClure et. al., 1983).

2. Recognition of nurse contributions

The hallmark category of recognition of nurse contributions has been a well supported construct in the literature in association with nurse job satisfaction. Varied aspects of recognition for nurse contributions have been studied in the literature lending some level of obscurity as to whether any one form of reward or recognition is more highly valued than others. Work conditions such as a good reward system involving congruence between workload and rewards were integral to job satisfaction among 109 German nurses employed at one hospital and two nursing homes (Demerouti et. al., 2000). Additional aspects of recognition noted to be of importance included performance feedback, task variety, job control, and supervisor support. This study also demonstrated inverse relationships between motivators and disengagement among respondents suggesting that deficiencies in motivators within an organization are associated with the development of a disengaged and indifferent attitude by employees toward their work. Aiken and colleagues (2001) provided further support of the importance of nurse recognition and rewards within the practice environment. The authors revealed correspondingly low levels of adequacy for reward and acknowledgement programs among all five countries in their examination of the effects of work environment characteristics on nurse retention within a five country study of
more than 700 hospitals, 43,000 nurses, and hundreds of thousands of patients. While the sample size was large (N= 43,329), the findings were reported via descriptive statistics limiting specificity and further explanatory power of the study. The authors recommend further research in the areas of dissatisfaction identified by respondents.

Perceived lack of recognition or lack of support from nursing leadership has also been documented as a primary cause of job dissatisfaction among nurses (McNeese, 1997). Price and Mueller (1981) studied a sample of 1,091 nurses from seven hospitals and reported that a fair compensation program was positively related to nurse job satisfaction. Additionally, the importance of remuneration within the recognition or reward system for nurse contributions has also been cited. Satisfaction with pay is noted among experienced nurses up to a threshold, at which point the top pay levels may represent limited further opportunities for increased earnings (Cox, 2001). McNeese-Smith (1999) noted that factors fostering job satisfaction included salary and benefits. It has long been established that motivators such as achievement, recognition, and responsibility lead to satisfaction (Herzberg, Mausner, & Snyderman, 1959). The definitions of recognition for nurse contributions vary between traditional practice environments and among experienced and novice nurses. The expectations and perceptions of balance and fairness between workload and rewards or recognition are undefined.

3. Promotion of nurse leaders

The hallmark category of promotion of nurse leaders has been a well supported construct in the literature in association with nurse job satisfaction. The importance of nurse leader behavior and the promotion of nurse leaders have been shown to directly
influence staff nurses. McNeese-Smith (1997) examined the specific influence of nurse leader behavior on nurses’ job satisfaction, productivity, and commitment among 30 staff nurses within the traditional practice environment of a university hospital. McNeese-Smith uncovered four primary themes about how nurse leaders fostered job satisfaction among staff nurses. The nurse leaders provided recognition, praise and thanks; met nurses’ personal needs and provided guidance; used leadership skills; and met unit needs while being supportive of the team. Organizational commitment among the staff nurses was enhanced by communication and leadership behaviors exhibited by nursing leadership. Productivity was noted to be fostered via recognition from nurse leaders. Job dissatisfaction for the nurses was caused primarily by the perceived lack of recognition or of support, not following through with problems, and a lack of help from the manager when patient care was heavy. The presence of competent and supportive management was also deemed essential within other traditional practice environments including the home health setting (Flynn & Deatrick, 2003).

4. **Empowerment of nurses**

The category of empowerment of nurses has been widely supported in the traditional work environment literature. Empowerment of nurses is associated with improved patient outcomes, increased organizational commitment, and improved job satisfaction in the hospital setting (Blegen, 1993; Laschinger & Finegan, 2005; Laschinger & Havens, 1996, 1997; Manojlovitch & Laschinger, 2002; McCloskey, 1990; McClure & Hinshaw, 2002; McKay, 1983; Porter O’Grady, 2001; Rafferty, Ball, & Aiken, 2001; Rodice, 1994; Spence- Laschinger & Sullivan- Havens, 1996).
Price and Mueller (1981) studied the importance of empowerment to nurse job satisfaction and intent to stay. The authors revealed positive relationships between job satisfaction and participatory organizational structure and decision-making. Ultimately, high participation in decision-making contributed to greater job satisfaction and greater intent to stay. Perceived deficiencies in nurse participation within institutional decision-making and thereby a lack of empowerment have been linked with decreased nurse satisfaction and retention (Aiken, et. al., 2001; 2002).

Tumulty and colleagues (1994) noted significant differences in nurse satisfaction with regard to perceived level of autonomy in the work environment ($F = 23.046, p<.01$). Nurses demonstrated greater satisfaction in relation to greater autonomy. Gelsema and colleagues (2006) found decision authority was a strong contributor to job satisfaction among 381 Dutch Hospital nurses despite sustained changes in traditional practice environment conditions over a three year span. Using normal and reverse causal regression analyses, decision authority ($R^2= 0.15$ and $R^2= 0.17, p< 0.001$), explained significant proportions of the variance in job satisfaction in normal and reverse causal regressions respectively.

5. Professional advancement support

The presence of educational support and professional development has been noted as important at all levels of nursing. Price and Mueller (1981) revealed the importance of promotional advancement support to nurse job satisfaction and intent to stay. Multiple regression analyses yielded positive relationships between job satisfaction and opportunities for intra-organizational promotions. Promotional opportunity was shown to have a statistically significant influence on job satisfaction.
High promotional opportunity contributed to greater job satisfaction and greater intent to stay. Flynn and Deatrick (2003) identified an extensive preceptored orientation as an organizational attribute considered most valuable to nurses in the home health setting.

Aiken and colleagues (2001) provided support for the dissatisfaction that results when nurses perceive deficient professional advancement support. The authors revealed low levels of adequacy for opportunities for nurse advancement among four (U.S. = 32.2%; Canada = 20.9%; England = 43.0%; Scotland = 23.7%) of five countries studied. German nurses reported notably higher levels (61.0%) of opportunities for nurse advancement when compared with remaining country participants. While the findings for Germany are unique, the findings for the remaining four countries represent a common situation among nurses internationally despite very different health care systems. Despite significant sample size and stark differences noted, the study design did not extend beyond the use of descriptive statistics. The findings serve as both a starting point and as support for the existence of an undetermined level of value for professional advancement support within professional practice environments. Additionally, the use of a pre-determined prescribed survey methodology limits the ability to further explore or explain such notable findings. Nurse perceptions concerning the level of importance and adequacy of existing promotional advancement support remain limited within the literature to traditional practice environments.
6. Collaborative interdisciplinary relationships

The category of collaborative interdisciplinary relationships has been a well-supported construct in the literature in association with nurse job satisfaction and decreased turnover intentions (Blegen, 1993). Best and Thurston (2004) revealed nurse satisfaction from “collegial relationships” with regard to most satisfying work aspects and most desired work changes. Nurses appear to define collegial relationships of differing value when discerning between “importance” and “job satisfaction” with interaction among colleagues. Respondents ranked collegial interactions as 4th in terms of importance but 2nd with regard to their job satisfaction, (Importance = autonomy, pay, professional status, interaction, task requirements, and organizational policies; Job satisfaction scores= professional status, interaction, autonomy, task requirements, and organizational policies; pay not measured). Assigned importance of traditional practice environment characteristics by hospital nurses determining degree of job satisfaction may not equate to essential characteristics for baseline work environment tolerance as evidenced by the disparity between rankings of variables according to importance versus according to satisfaction. Deductive measures have not fully captured the properties within the phenomenon of job satisfaction for nurses within traditional work environments. The illumination of qualitative factors reinforces the presence of additional dynamics in this area of decision-making. Further study is warranted of differences that exist between importance of given hallmarks and job satisfaction associated with them as perceived by nurses.

Presence and character of collegial relationships are notable contributors to job satisfaction and turnover intentions. Interpersonal relations and intragroup conflict have
been associated with turnover among nurses. Among 141 RNs from an academic medical center in the southeastern US, perceptions of greater unit morale and better interpersonal relations were associated with lower intragroup conflict and less anticipated turnover (Cox, 2001). McNeese-Smith (1999) noted that factors fostering job satisfaction included positive relationships with coworkers while job dissatisfaction was primarily influenced by factors that interfered with the job and relations with coworkers. Price and Mueller (1981) confirmed the importance of collaborative interdisciplinary relationships to nurse job satisfaction and intent to stay using multiple regression analyses among 1,091 nurses from seven hospitals. Positive relationships were noted between job satisfaction and having close social ties with colleagues. The influence of sustained changes in collegial relationship practice environment conditions on nurse job satisfaction was confirmed in a longitudinal design over three years by Gelsema and colleagues (2006) among 381 nurses within a Netherlands hospital. Using normal and reverse causal regression analyses, personnel resources ($R^2 = 0.13$ and $R^2 = 0.17$, $p<0.001$) and supervisor social support ($R^2 = 0.15$ and $R^2 = 0.18$, $p<0.001$) explained significant proportions of the variance in job satisfaction in normal and reverse causal regressions respectively. The findings suggest that changes in work relationship conditions are highly related to changes in job satisfaction. Tumulty, Jernigan, and Kohut (1994) demonstrated that involvement or concern for the job, peer, and supervisory relationships within the work environment contributed to staff nurse satisfaction. Significant differences were noted in all aspects of perceived job satisfaction related to work environment impact on work relationships including involvement ($M = 4.448$, $SD = 1.077$), peer cohesion ($M = 4.647$, $SD = 1.074$), and
supervisor support (M = 3.782, SD = 1.135). Additionally, significant differences were noted between satisfaction and interaction (F = 18.892, p<.01). The findings were further supported by Shader, Broome, West, & Nash (2001) who examined factors influencing satisfaction and turnover among 241 nurses and five nurse managers from a university hospital. Results showed that higher levels of satisfaction were associated with higher team cohesion and lower anticipated turnover. Reciprocal effects of collaborative relationship job conditions and health and well-being outcomes variables upon each other are consistent with other studies among nurses (DeLange, Taris, Kompier, Houtman, & Bongers, 2004; Demerouti et. al., 2000). Additionally, the studies appear to indicate that the presence of a cohesive peer group may counterbalance other work environment aspects perceived to be inadequate.

Decker (1997) provided additional support for the hallmark category of collaborative inter-disciplinary relationships through his examination of variables of importance in the prediction of job satisfaction in a sample of 376 full-time nurses employed in an urban university teaching hospital. Six independent variables contributed significantly to the prediction of job satisfaction. The occupational relationship role with the head nurse was the most important predictor of satisfaction, followed by job/non-job conflict, co-workers, unit tenure, physicians, and other units/departments underscoring the value of collegial relationships within the traditional practice environment. The author acknowledged that the novel contribution of unit tenure toward job satisfaction warranted further research, however the remaining findings are consistent with the literature on the contributions of working conditions to nursing job satisfaction (Blegen, 1993; Gray-Toft & Anderson, 1985; Motowidlo,
Immigrating in Nursing

Packard, & Manning, 1986; Reineck & Furino, 2005; Roedel & Nystrom, 1988; Tumulty et. al., 1994). While the study supports the literature regarding the important contribution of supervisory and peer relationships to nurse job satisfaction within the hospital setting (Buccheri, 1986; Irvine & Evans, 1995; Lucas, 1991; Parasuraman, 1989), the restrictions of quantitative design are demonstrated through limited explanation and exploration of the novel unit tenure finding in addition to the actual perceived value that the nurse may place on factors not included in the research design. The presence or importance of novel undefined factors that influence nurse job satisfaction is unknown.

7. Utilization of technological advances and resources

The final category of utilization of technological advances and resources as an essential element in professional nursing practice environments has also been supported in the literature. Within a study of 387 nurses from 4 Canadian hospitals, 55% of nurses reported frustration with equipment and supply problems and open-ended questions soliciting suggestions for change elicited the use of bedside computerized patient charting (Best & Thurston, 2004). Tumulty, Jernigan, & Kohut (1994) demonstrated that workload associated environmental components negatively influenced nurse job satisfaction among 159 nurses. Work environment components associated with systems maintenance and systems change accounted for significant (P< 0.01) differences in overall job satisfaction. Concerns about the tools available to provide quality patient care detracted from nurse satisfaction.
D. Summary

Researchers have established the importance of specific work environment characteristics in counterbalancing the inherent stressful nature of the nursing role in traditional professional practice environments. No literature was located describing specific work environment characteristics in the pharmaceutical/biotech industry. Since little is known about factors that nurses within the pharmaceutical/biotech industry perceive to be supportive of their professional practice, the literature on factors that attract and retain nurses within traditional professional practice environments was reviewed to understand phenomena that may impact nurse perception of professional practice support within the non-traditional practice environment of the pharmaceutical/biotech industry.

The state of the knowledge on the job satisfaction of nurses in traditional professional practice environments reveals a divergence of contributing factors as further illustrated in the work of Blegen (1993) and Spector (1997). Nurse specific correlates of job satisfaction within traditional practice environments are present in the work of Blegen (1993) including the elements of group and leader cohesion and support while more global groupings of job satisfaction phenomena are seen in the categories derived by Spector (1997) such as role variables. These findings suggest that job satisfaction correlates of greatest magnitude among nurses may differ from other disciplines. Additionally, the factors relevant to the job satisfaction of nurses within traditional practice environments may differ from those within non-traditional practice environments such as the pharmaceutical/biotech industry and may require further investigation. The discovery of additional motivational factors supporting nurse
satisfaction provides support for a grounded theory investigation of how nurses perceive their professional practice within the pharmaceutical/biotech industry.

There is a gap in acknowledgement or definition of the practice environment and existence of nurses within the pharmaceutical/biotech industry. This oversight is evident in the most exhaustive source of statistics on all registered nurses with current licenses in the United States, the National Sample Survey of Registered Nurses (NSSRN). As previously noted, according to results from 2004, the employment area of pharmaceutical and biotech industry was noted to be included within the category of “Other” along with a miscellaneous grouping of settings. Prior to 2004, there was no delineation or acknowledgement of this area as a potential career employment choice. A significant increase is noted in the percent of nurses employed in the “other” category as the number has doubled in four years from 4.1% in 2000 to 8.5% in 2004. The specific portion attributed to the pharmaceutical and biotech industry remains unknown.

No information was found providing the perspectives of nurses regarding their professional practice within the non-traditional practice environment of the pharmaceutical and biotech industry. Traditional healthcare continues to evolve at the pace by which new therapies emerge from the clinical research conducted by the pharmaceutical/biotech industry. The licensure of these new products and therapies is dependent upon the meticulous ethical management of the clinical trials that provide the foundation of evidence for the respective product’s safety and immunogenicity. The roles of the nurses that oversee and manage these clinical investigations are crucial.

In summary, professional practice environments in traditional healthcare settings characterized by the presence of core organizational attributes as depicted in the
hallmark categories are associated with increased recruitment and retention of nurses. The lack of scholarly attention to the question of how nurses within the non-traditional practice environment of the pharmaceutical/biotech industry perceive their professional practice provides further support for the proposed study.

**E. Research Paradigm**

Symbolic interactionism assumes that human action results from meanings that people construct from interactions with phenomena within specific contexts (Blumer, 1969; Mead, 1934). The assumption of symbolic interactionism is that people’s actions result from meanings they construct (Glaser & Strauss, 1967). These interpretations are translated into meaning via processes (Charmaz, 1990). The processes support the purpose of grounded theory toward illuminating theory building within each area of study (Strauss & Corbin, 1998). The realization of the practical application of the theory serves as actualization of the research (Strauss & Corbin, 1998).

Grounded Theory (Glaser & Strauss, 1967) as derived from the philosophic perspective of symbolic interactionism enabled analysis of perceptions of professional practice by nurses within the pharmaceutical/biotech industry. The investigation and discovery of the main concern of nurses professionally practicing within the pharmaceutical/biotech industry revealed a core category and substantive theory explaining the nurses’ perception of professional practice within this unstudied practice environment.

Quantitative inquiry is best used for the investigation of relationships, comparisons, and prediction with regard to known variables (Stainbeck & Stainbeck,
Naturalistic inquiry explores the experience and perspectives of participants in respective settings in order to determine processes that exist (Denzin & Lincoln, 2008). Grounded Theory development is warranted to describe and explain how nurses within the pharmaceutical and biotech industry perceive their professional practice. The development of theory required the ability to access this highly restricted industry and specialty area in order to gather data. From the perspective of naturalistic inquiry this element of immersion by the researcher was essential for discovery of embedded processes, phenomena, and structures (Charmaz, 2008, p.21). As a member of this culture, this researcher benefitted from a knowledge of navigation of the points of entry to gain access and acceptance by members of the nurse community within the pharmaceutical and biotech industry. This researcher engaged in the exploration of the culture through conceptualization of the concerns and description conveyed through the perspectives of the participants. Discovery of patterns reveals a theory that fits or works in the substantive area since the theory has been derived from and is grounded in the data (Glaser & Strauss, 1967, p. 30). Grounded theory methods provide systematic guidelines for probing beneath the surface and digging into the scene which assist in focusing, structuring, and organizing it (Charmaz, 2008). The charge of the grounded theorist is not to provide a perfect description of the area, but to develop a theory that explains much of the relevant behavior (Glaser & Strauss, 1967). A grounded theory methodology guided exploration of the perspectives of nurses concerning factors underlying their perceptions of their professional practice within the non-traditional practice environment of the pharmaceutical/biotech industry.
This study is specific to the pharmaceutical/biotech industry practice environment and limited to the enrolled sample of pharmaceutical/biotech industry nurses. The substantive grounded theory that emerged explains the main concern of these nurses within the non-traditional practice environment of the pharmaceutical/biotech industry.

**F. Research Question**

The initial question that guided this study is: “How do nurses within the pharmaceutical/biotech industry perceive their professional practice?”
Chapter III. Method

A. Research Design

A grounded theory approach was used as the methodology best suited to discover how nurses within the pharmaceutical/biotech industry perceived their professional practice. Grounded Theory is a systematic method for inquiry and theory development regarding human behavior and processes (Glaser, 1978; 1998; Glaser & Strauss, 1967). Grounded theory methods allow increased flexibility and focus to follow leads as they emerge (Charmaz, 2008). The Grounded Theory method revolves around constant comparative analysis incorporating both coding and memoing that yield hypothesis development and refinement until no new hypotheses are discovered as guided and grounded in the data (Glaser, 1978; Glaser & Strauss, 1967). To attain a true level of understanding and knowing, interviews were conducted with nurses employed within the pharmaceutical or biotech industry to explore their perspectives on professional practice within this non-traditional work environment. The narrative form of data gathering through direct interview of participants who have lived through the experience is best suited for grounded theory inquiry (Schreiber & Stern, 2001).

Naturalistic inquiry has been described as the ideal methodology to undertake holistic and in-depth investigations of phenomena (Patton, 2002). Naturalistic inquiry is appropriate when little is known about a particular phenomenon as it allows expanded exploration resulting in rich and descriptive data that facilitate understanding of the phenomenon of interest (Munhall, 2001). Glaser and Strauss (1967) proposed that systematic qualitative analysis had its own logic and could generate theory consisting of
abstract theoretical explanations of social processes. This systematic qualitative analysis would form the basis of Grounded Theory. Charmaz (2008) describes the prime objective of GT to learn what is occurring in the research setting in order to learn what participants’ lives entail and how statements and actions are explained by participants. These form the basis for the analytic theoretical understanding of the studied experience.

This chapter describes participant recruitment, interview procedures, data analysis procedures, and human subject protections employed within this study.

B. Recruitment

1. Sample

Nurses employed within the pharmaceutical/biotech industry constituted the participants in this study.

2. Inclusion and Exclusion Criteria

The study was limited to nurse participants in the Mid-Atlantic Region currently working full time in a clinical role within the pharmaceutical or biotech industries at the time of data collection. Nurses who were on maternity or disability leave at the time of data collection were excluded. This study was limited to nurses who speak and understand English.

3. Strategy for Obtaining Participants

The sample was obtained via word of mouth as well as from the membership of the following organizations:
1. Society of Clinical Research Associates (SOCRA)

2. Association of Clinical Research Professionals (ACRP)

No specialty society exists by which to access all pharmaceutical/biotech nurses. SOCRA is a non-profit organization dedicated to continuing education of clinical research professionals with over 12,000 members from industry, academia, research centers, NIH, and regulatory agencies. This organization provides internationally recognized certification that fosters quality clinical research for protection of research participants and improvement of global health (SOCRA, 2011). ACRP serves as the primary resource for education and networking needs of clinical research professionals in industry, hospitals, academic medical centers, and community research sites. It was founded to address the needs of those who support clinical investigations and includes a membership of more than 20,000 individuals in over 60 countries (ACRP, 2011). Both organizations host regional meetings and have regionally associated list serves. The aforementioned organizations have electronic forums as well as electronic membership sites in which announcements may be posted. Permission to conduct the research study was obtained from the Rutgers University Institutional Review Board prior to any study related publicity or activities.

Upon Institutional Review Board approval, the “Invitation to Participate” (Appendix B) was verbally announced/circulated at regional association meetings in the Mid-Atlantic Region of the Association of Clinical Research Professionals (ACRP) and Society of Clinical Research Associates (SOCRA) organizations. Based upon the strong interest expressed at the initial regional meeting the investigator attended, the decision was made to defer posting the “Invitation to Participate” within the “Member
Only” electronic bulletin forums until member interest was gauged. The “Invitation to Participate” includes contact information of the investigator through which the potential participant may express their interest in participating. Upon receipt of contact information from potential participants, the investigator forwarded the “Consent to Participate in a Research Study” (Appendix C) with a stamped, self-addressed envelope. After receiving the signed consent the investigator scheduled each interview meeting at a mutually agreed upon location, date, and time.

C. Interviews

Audio taping began following the completion of Demographic data collection (Appendix D) in order to maintain confidentiality of the audio taped transcript. If a potential participant had declined to participate, the reason for refusal was to be logged without any identifying data within an operational memo. No participants refused participation following the completion of any study documents. Subjects were numerically coded to prevent disclosure of identity. The interviews commenced using open-ended questions and probes as appropriate (See Appendix A). Participants were encouraged to respond in as much detail as possible and until they have nothing further to add. It was anticipated that the participants would need approximately 60 minutes of time to complete the interview. All interviews were audio taped and transcribed verbatim. The investigator maintained observational and field notes at the completion of each interview with the respective transcript to capture context and additional detail as well as investigator reactions and thoughts. The observational and field notes were stored in a locked filing cabinet accessible only to the investigator or research team upon request.
1. Data collection procedures

Theoretical sampling guided the data collection in this study following initial purposive sampling. In response to emergence of major conceptual categories from the data, theoretical sampling was employed to seek out participants with varied perspectives allowing increased examination of relevant concepts (Strauss & Corbin, 1998). Theoretical sampling is used to check on the emerging conceptual framework through questioning the fit, relevance, and workability of the emerging categories and interconnections (Glaser, 1978). Toward this end, comparison occurs of ideational characteristics that explain behavioral patterns. Participants were sampled based upon theoretical relevance in expanding the emerging categories and in varying associated properties. Engagement in theoretical sampling guided identification of progressive data collection targets both within data category details and within participant categories in order to optimize fullness of resulting theory. Theoretical sampling aims at maximizing comparison of concepts regarding similarities and differences via all possible dimensions (Strauss & Corbin, 1998). Sampling continued until theoretical saturation was achieved.

D. Data Analysis

1. Data analysis procedures

Audiotapes from interviews were transcribed verbatim and stored electronically on the password and firewall protected computer of the investigator. The investigator maintained observational and field notes at the completion of each interview with the respective transcript to capture context and additional detail as well as investigator
reactions and thoughts. Data collection and analysis were conducted simultaneously as directed by the constant comparative method which remains a hallmark of Grounded Theory methodology (Glaser, 1978; 1998; Glaser & Strauss, 1967). The constant comparative method is detailed later within this chapter. As delineated within the constant comparative method, as new incidents, concepts, and categories emerged, theoretical sampling adapted to guide data collection and analysis. The interview guide (Appendix A) also adapted in order to comprehensively probe in response to emerging categories as guided by theoretical sensitivity (Glaser, 1978). Hypothesis formulation and re-formulation of interconnections was based upon and grounded within the categories and their properties. The literature was re-visited upon crystallization of the core category and substantive theory for illumination of relevant complementary data. The rigor of the study can be judged according to the elements of trustworthiness incorporated and implemented within the study by the investigator and fully described in later sections of this chapter.

2. Constant Comparative Method

Data analysis within this study followed the grounded theory method of Glaser and Strauss (1967). Glaser and Strauss (1967) conduct data analysis through the constant comparative method. Data analysis occurred in an ongoing manner after each interview had been completed and the recording had been transcribed verbatim. Data transcripts from individual interviews and field notes were broken down into discrete parts for examination and comparison (open coding). Open coding enabled conceptual analysis into categories. The coding was done line by line to identify categories and continued to employ comparison to further refine and develop each category which lead
to the discovery of the properties of categories (Glaser, 1992). Emergent themes were mapped out graphically to facilitate category formation and the identification of subcategories. Once theoretical connections had emerged, additional validation and exploratory questions followed with subsequent participant interviews. Upon emergence of the core category from the analysis, selective coding was engaged to identify variables relevant to the core category. Glaser (1992) purports that upon discovery of the core category, grounded theory aims to generate a substantive theory that accounts for the behavior of the population of interest. Demographic data was analyzed utilizing descriptive statistics.

3. Coding

Glaser and Strauss (1967) delineate open coding as the initial stage of data analysis through the coding of each incident within the data into as many categories as possible. Coding commenced with line by line data through constant comparison inclusive of interview transcriptions, field notes, and demographic data. Each coded incident corresponding to a category was compared to previous incidents in both similar and different groups within the same category. Constant comparison leads to the generation of theoretical properties of each category including conditions, context, consequences, and relation to other categories. Emerging categories reflected both participant language behavior labels and investigator constructions depicting the processes and theoretical codes. The repetitive coding and re-coding elicited theoretical notions of the investigator which were reflected in the memos recorded at each juncture. Coding then progressed to comparison of incident with properties of the respective categories and finally concept to concept. Substantive codes referred to
conceptualization of the empirical data while theoretical codes conceptualized the relationships and hypotheses integrated within the theory (Glaser, 1978). The investigator maintained a continuous sequence of comparisons of incidents, concepts, memos, and relationships in order to uncover the emerging core category (Glaser & Strauss, 1967; Glaser, 1978). The core category signifies the basic social process or main concern of the participants (Glaser, 1978). As the core category and patterns emerge, a theory will ensue which will require modification, elaboration, and reduction. The investigator will selectively code data to define the associated properties, conditions, and context (Glaser, 1978). Theoretical saturation of categories signaled the conclusion of data collection (Glaser & Strauss, 1967). The integration of constant comparative analysis, memoing, and the formulation and re-formulation of hypotheses yielded a substantive grounded theory of how nurses within the pharmaceutical/biotech industry perceive their professional practice.
4. Memoing

Beyond the use of comparison, interview questions, and coding, the investigator also employed the use of memos and field notes. In order to reduce any risk of investigator bias, to ensure openness to new and sensitive information, and to constantly address consistency in method, the investigator engaged in operational memoing and maintenance of scheduled interaction and feedback with the dissertation chair and a group of peer novice grounded theorists. Glaser (1992) emphasizes that memos are formulated in an emergent manner and are not categorized in any typology. “Memos are the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding” (Glaser, 1978, p. 83). Glaser (1992) purports that theoretical sorting is the key to organizing the codes and memos into a theoretical outline for conveying the grounded theory.

5. Trustworthiness

The value and quality of the research findings is directly amenable to several inherent characteristics of the research design by which the rigor and validity are evaluated (Leininger, 1998). In naturalistic research, validity can be judged by the extent to which understanding and knowledge are gained of the true essence of a particular phenomenon (Leininger, 1998). Lincoln and Guba (1985) have noted that the complete elimination of all possible biases is unattainable but fairness and balance can be achieved through the employ of techniques specific to naturalistic inquiry. The use of member checks, debriefings by peers, and independent audit were employed during the course of this study. Further, Lincoln and Guba (1985, p. 296) purport, “To demonstrate true value, the naturalist must show that he or she has represented those
multiple constructions adequately, that is, that the reconstructions that have been arrived at via the inquiry are credible to the constructors of the original multiple realities.”

Additionally, validity in qualitative research signifies “gaining knowledge and understanding of the true nature, essence, meaning, attributes, and characteristics of a particular phenomenon under study” (Leininger, 1998, p.68). There are four general criteria by which the truthfulness or trustworthiness can be judged within a qualitative study inclusive of: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Methods to assure trustworthiness were employed within this study in relation to each of the aforementioned aspects as follows.

Lincoln and Guba (1985) delineate the credibility of a study as the degree of confidence that the findings represent the true reality of the participants in a given context. Glaser and Strauss (1967) assert that credibility refers to the detailed elements of the strategies used in data collection, coding, data analysis, and generation of the grounded theory. Standard method in presentation of these strategies is the use of data as evidence to illustrate how the investigator generated the theory. Credibility of findings is evident via the diligent verbatim transcription of audio taped interviews for accuracy, the integration of peer debriefings with the dissertation chair and the two novice peer grounded theorists and the use of member checking techniques via incorporation of findings in a progressive manner within subsequent interview questions for elaboration, confirmation, or rejection. Additionally, member checks included follow-up interviews with three participants of the study for clarification, review, and feedback.
Lincoln and Guba (1985) describe transferability as the extent to which findings can be applied in other contexts or with other respondents. Glaser (1992) confirms that generalizability is the generalizing of a process from a substantive theory with limited scope to a process of larger scope. Transferability and generalizability of findings were addressed via provision of thick description of data. This allows the consumer of this research the authority and judgment to determine applicability and recognizability of the factors that nurses ascribe as reflective of their professional practice within the pharmaceutical/biotech industry. Transferability was also judged through the peer-review and member check processes with subsequent interviewees.

Lincoln and Guba (1985) describe dependability as the likelihood that a study would yield equivalent findings if conducted in a similar group of respondents in a similar context. Dependability was demonstrated via the use of an audit trail of the process and product of the inquiry whereby the decision trail and associated coding and sampling steps were clearly outlined to allow an independent researcher entry into the methods employed by the investigator. Morse (2000) confirms that the purpose of the audit trail is to enhance the ability of the consumer of the research to reconstruct the decision-making process attended to by the initial investigator. The archiving of all notes, memos, and transcripts was utilized to allow for access at all times by both the dissertation chairperson and the committee members.

Lincoln and Guba (1985) contend that confirmability is the degree to which the findings are a product of the area of inquiry versus the biases of the investigator. Confirmability refers to freedom from bias in the research procedure and findings and that the theory is grounded in the data. Confirmability was demonstrated through the
use of memoing and the audit trail. Additionally, regular communication with the
dissertation chair contributed to the confirmability of the study.

Glaser (1992) also details criteria for evaluation of grounded theory which
include the areas of: Fit, Work, Relevance, and Modifiability. Fit infers validity and the
ability of the concept to represent the data (Glaser, 1998). The Fit was demonstrated
through the congruence of all categories to the data. Work embodies the ability of the
fit and relevance of the theory to explain the variation in behavior in the given area
(Glaser, 1998). Work was evidenced via the explanation provided by the theory to
delineate and illuminate what is happening within the phenomenon. Relevance signifies
the level of explanation that the theory provides for the reality of the participants
(Glaser, 1998). Relevance was noted as the theory pertinently and currently captures the
action of the phenomenon. Modifiability conveys the extent of the theory to allow
refinements based upon the incorporation or discovery of additional data (Glaser, 1998).
Modifiability is shown as the flexible characteristic of the substantive theory to absorb
and explain the phenomenon within varying contexts.

6. Audit Trail

It is the responsibility of the investigator to document methodological
congruence via an audit trail (Lincoln & Guba, 1985). An audit trail contains a
chronicle of the steps and decisions that comprised each conclusion. Lincoln and Guba
(1985) offer six categories of materials integral to the audit trail: raw data, data
reduction and analysis products, data reconstruction and synthesis products, process
notes, materials relating to intentions and dispositions, and information relative to any
instrument development. The raw data is evidenced within the transcriptions of the
interviews and the memos. The data reduction and analysis products are evidenced within the coding and memos. The data reconstruction and synthesis products are evidenced within the category and hypothesis development, theoretical memos, and schematic diagrams of relationships and properties. Process notes and materials relating to intentions and dispositions are evidenced within the operational memos. Instrument development materials are not applicable. Schwandt and Halpern (1988) describe a four stage model for maintenance of an audit trail: planning, organizing, recording, and delivering. Planning relates to conscious archival of study data including the structure to be instituted. Organizing delineates the record filing system. Recording signifies the quality assurance of study materials and delivering ensures accessibility for audit upon demand. Beyond the proper placement of the aforementioned infrastructure, the adequacy of the research process is evident via the criteria proposed by Strauss and Corbin (1990) which include: Explicit description of how the original sample was selected, specific identification of emergence of major categories as well as the indicators that lead to the respective major categories, the rationale for theoretical sampling in relation to emergence of new categories with identification of associated categories, discussion regarding the conceptual hypotheses relating categories, confrontation with discrepancies about hypothesized relations, and the logic encompassing the selection of the core category.
E. Human Subjects

1. Subjects

Nurses employed within the pharmaceutical/biotech industry constituted the participants in this study. Prediction of exact participant sample size requirements is not possible prior to achievement of theoretical saturation of data. Achievement of theoretical saturation of data is signaled when the following parameters are realized: absence of new data emerges, all categories are richly developed inclusive of variations, and relationships between categories are both well established and validated (Glaser, 1978). Sample adequacy is determined by the quality, richness, and comprehensive nature of information supplied by participants not by sheer numbers of participants (Morse, 1986). Naturalistic sampling sharply contrasts traditional or conventional sampling methods with the primary goal of optimizing information collection versus achievement of prediction or generalization.
2. Inclusion and Exclusion Criteria

The inclusion and exclusion criteria of this study limited the sample to nurse participants in the Mid-Atlantic Region currently working full time in a clinical role within the pharmaceutical or biotech industries at the time of data collection. No potential participants for the study were currently on maternity or disability leave at the time of data collection requiring exclusion. All participants within the study were required to speak and understand English.

3. Recruitment

Permission to conduct the research study was obtained from the Rutgers University Institutional Review Board prior to any study related publicity or activities. The sample was obtained via word of mouth as well as from the membership of the following organizations:

1. Society of Clinical Research Associates (SOCRA)
2. Association of Clinical Research Professionals (ACRP)

The investigator was able to attend regional meetings of both of the organizations following receipt of the Institutional Review Board approval for the study from the Rutgers Institutional Review Board. At each of the meetings, the “Invitation to Participate” (Appendix B) was verbally announced/circulated to meeting attendees. The “Invitation to Participate” includes contact information of the investigator through which the potential participant may express their interest in participating. Upon receipt of contact information from potential participants, the investigator forwarded the “Consent to Participate in a Research Study” (Appendix C) with a stamped, self-
addressed envelope and the investigator scheduled an interview meeting at a mutually agreed upon location, date, and time.

Theoretical sampling guided the data collection in this study following initial purposive sampling. In response to emergence of major conceptual categories from the data, theoretical sampling was employed to seek out participants with varied perspectives allowing increased examination of relevant concepts (Strauss & Corbin, 1998).

4. Interviews

Participants were instructed in both written study documents and verbally that the interview would last approximately 60 minutes of time to complete. All initial interviews ranged in time from 35 to 55 minutes. The participants were reminded that their enrollment would span until their decision to withdraw or until the duration of the study in May 2011, whichever came first. The investigator requested to do a follow-up interview within the study period if clarification or more information was needed. Participants were under no obligation to comply but were reimbursed for each interview at the rate of $20.00 per interview. Three of the sample participants also agreed to and participated in member check interviews.

5. Informed consent

The study proposal was submitted to the Rutgers, The State University of New Jersey Institutional Review Board for approval prior to study initiation. Copies of the Interview Guide (Appendix A), Invitation to Participate (Appendix B), Consent (Appendix C), and Demographic Questionnaire (Appendix D) appear as appendices.
Each interested participant was provided a consent form prior to scheduling of the interview. All participants were informed verbally of the risks and benefits of participation prior to enrollment. Confirmation of understanding of the risks and benefits of participation were discussed as presented within the consent form. All participants were informed within the consent form of their right to refuse to answer any or all of the interview questions. All participants were also verbally reminded of their rights again immediately prior to initiation of each individual interview. Willingness to participate in the research study was considered completion of the informed consent. In order to protect the rights of the individuals participating in the research study, interviews with the potential subject did not commence until the Consent form was signed and returned to the investigator. The consent form states that the study involves research, explains the purpose of the research, delineates the expected duration of the subject’s involvement, describes the study procedures, lists any risks and benefits involved in study participation, describes methods to be undertaken to ensure subject confidentiality, states study compensation, reinforces the voluntary nature of participation, as well as provides the names of the investigator and supervising faculty. Each subject was instructed both via the invitation, the consent, and prior to initiating the interview that participation is entirely voluntary and that the subject is under no obligation to answer the questions. The subjects were advised that they may end the interview at any time and may refuse to answer any questions without reprisal. The subjects were instructed that the expected interview length was approximately 60 minutes and that their participation in the study was limited to one interview with the possible opportunity for a follow-up interview with separate compensation upon their
approval during the study period. Subjects were advised of the objective and neutral role of the investigator such that all information they chose to share was confidential in nature, that their names would not be divulged, and that the information obtained would only be reported through the use of pseudonyms or utilized as aggregate data in reporting findings of the dissertation study. Information gained would not be accessible or shared with participant employers.

6. Data collection

The investigator transcribed interview audiotapes verbatim and maintained secure electronic storage on a password and firewall protected computer. The investigator filed observational and field notes at the completion of each interview with the respective transcript to capture context and additional detail as well as investigator reactions and thoughts. The investigator conducted simultaneous data collection and analysis as directed by the constant comparative method which remains a hallmark of Grounded Theory methodology (Glaser, 1978; 1998; Glaser & Strauss, 1967). The interview guide (Appendix A) was also adapted with subsequent interviews in order to comprehensively probe in response to emerging categories as guided by theoretical sensitivity (Glaser, 1978). Demographic data was collected prior to audio-taping using the demographic questionnaire (Appendix D).

7. Data storage and disposition

Subjects were numerically coded to prevent disclosure of identity. While analyzing the data, the identity of each research subject was protected through secured, locked storage of all signed consent forms, interview data, and audio recordings within a locked file cabinet limited to access by the investigator only. Electronic transcriptions
of the data were stored within the investigator’s personal computer which is password and fire wall protected. Each file was renamed to subject code name and any identifying information was removed. The dissertation supervisory committee was granted verification access to files for the purpose of authenticating collected and analyzed data upon request. After a period of three years following the completion of the study, the audiotapes and study documents will be destroyed via shredding following erasure of all data.

8. Risks and benefits

Each subject received verbal and written information about the study including the benefits and risks of participation. There are no known risks for participating in this study. There are no direct benefits for participating in this study. It is hoped the additional information gained in this research study may be useful in improving nursing education programs and practice models.

F. Summary

This chapter provided a description of the methods employed to conduct this study. Participant recruitment strategies were explained. Interviews and data collection and analysis procedures were delineated. Safeguards to ensure trustworthiness as well as the audit trail were discussed. Human subject protections were detailed.
Chapter IV. Participants and Sampling

Grounded Theory uses data from participants accessed through purposive sampling. This chapter introduces the participants in this study through summaries of their demographic information. The purposive sampling method used in this study is also described.

A. Introduction to the Study Participants

The sample consisted of fifteen participants recruited over a ten-week period. The participants ranged in age from twenty-eight through sixty years. There were twelve females and three males. All were currently licensed Registered Nurses and reported working full-time within the pharmaceutical/biotech industry. All could read and speak English. All completed a Demographic Questionnaire.

1. Demographic Data

There were twelve female and three male participants ranging in age from 28 to 60 years (Mean = 48 years). Seventy-three percent (N= 11) were married, twenty percent (N = 3) were single, and seven percent (N = 1) were divorced. While the demographic questionnaire included separate entries for ethnic group and race, one hundred percent of participants reported their race as Caucasian. The ethnic group question yielded unusable data as sixty percent of participants (N = 9) wrote Caucasian on that line as well or simply scribbled it out. Six participants wrote ethnic groups of: Polish, Slovak/Italian, Irish/German/Slovak, Welsh, mixed, and Anglo-Saxon Protestant respectively. Years of practice in nursing ranged from nine to thirty-nine years (Mean = 25.8 years). Years of nursing practice within the pharmaceutical/biotech industry
ranged from five to twenty-two years (Mean = 11.4 years). One participant held an earned PhD, one participant was a PhD candidate while five held Master’s degrees (36%), six held Bachelor’s degrees (43%), one held an Associate’s degree, and one held a Diploma in Nursing. Certifications and professional development reported by participants ranged from industry specific certifications (Certified research coordinator, project manager, certified clinical research professional, and regulatory affairs certification) to business and degree related courses. Participant characteristics are summarized in chart form in (Appendix E).

B. Purposive Sampling

Qualitative research methods utilize purposive sampling to examine the experiences of participants with personal knowledge of the phenomenon under investigation. Purposive sampling differs from random or probability sampling which is the dominant technique used within quantitative research methods (Charmaz, 2008). Core sampling differences revolve around the research goals whereby quantitative investigators use the data to make statistical inferences regarding target populations while grounded theorists seek to discover emerging theories from the data (Charmaz, 2008). Participants were selected using a sampling strategy based upon the likelihood of their ability to provide rich description on perceptions of professional practice and job satisfaction support within the pharmaceutical/biotech industry. Participants were assigned identification code numbers on the date of the consent being received by the researcher, not on the actual date of the interview. Interview completion dates are not represented by the order of the numeric participant codes. During the course of the
study, emerging theory directed conversion to theoretical sampling (Glaser, 1978, 1998).

1. Response to Regional Professional Society Meeting Attendance

The first participant contacted the researcher in-person following announcement of the study at a regional professional society meeting. She was selected because she met inclusion criteria, was eager to participate, and stated that she wanted to share her experience. She was consented and later interviewed. Two additional participants contacted the researcher via email following the meeting, met inclusion criteria, were consented, and eventually interviewed. The second participant was sampled due to his description of having varied industry professional practice experiences. The third participant was sampled in part due to her lengthy career in nursing practice.

2. Response to Word-of-Mouth Recruitment

The next five participants contacted the researcher via email following receipt of the “Invitation to Participate” from colleagues. All met inclusion criteria, were consented, and subsequently interviewed. One additional individual contacted the researcher via email to participate but later phoned the researcher to decline participation due to illness. The fourth participant was sampled due to her report of having directly entered industry following graduation from her undergraduate nursing program. The fifth participant was included due to her contrasting roles in industry. The sixth participant was sampled due to her description of management level roles both in traditional and industry settings. The seventh participant was sampled due to her description of current pursuit of a doctoral degree since joining industry. The eighth participant was included because of his executive level role and career trajectory since
joining industry. Each of the aforementioned participants was purposively sampled to expand the variation represented in nursing professional practice within the pharmaceutical/biotech industry and to discover commonalities.

D. Theoretical Sampling

Preliminary identification of the basic core process or core category spurred the initiation of theoretical sampling. Theoretical sampling is a purposive sampling technique involving continuous sampling decision-making to determine the characteristics on which further participants might be selected in order to choose participants who will contribute to the categories or properties of the emerging theory (Glaser, 1978). Evolving theory directs the adaptation of interview questions as well as the constant comparison of existing data through theoretical coding.

The remaining seven participants were sampled theoretically by word-of-mouth until all concepts were fully developed and no new information was revealed. The ninth participant was sampled to examine nursing socialization aspects of perceptions of professional practice. Additionally, she had entered industry more recently and had fewer years in nursing practice. The tenth participant was included because he verbalized negative socialization experiences prior to entering industry. The eleventh participant was sampled because her background included academic, research, and clinical practice settings prior to industry. The twelfth participant was selected because she described contrasting role experiences. The thirteenth participant was included due to references she made to working for a difficult department within industry. The fourteenth participant was sampled due to her description of heading an entire
department of nurses within industry. The fifteenth participant was sampled to confirm the emerging theory. At that point, the researcher determined that theoretical saturation had been achieved. Narrative story summaries for each participant are available in Appendix F.

E. Summary

This chapter introduced the participants and the methods of sampling. Demographic information was summarized and presented inclusive of years of professional practice in nursing as well as years in professional practice within the pharmaceutical/biotech industry.
Chapter V. Description and Discussion of the Theory

The purpose of this research was to describe and explain how nurses within the pharmaceutical/biotech industry perceive their professional practice and to identify a substantive theory of this process. In this study, the research question was: How do nurses within the pharmaceutical/biotech industry perceive their professional practice? The process of, “Immigrating in Nursing” emerged through Grounded Theory methodology. This four-step process explains how nurses within the pharmaceutical-biotech industry perceive and integrate support for their professional practice.

A. The Core Category

The objective of grounded theory is to generate substantive theory that accounts for patterns of behavior which are relevant and problematic for those involved (Glaser, 1998). The emergence of this theory centers around a core category which possesses specific characteristics. Most importantly, the core category represents the process by which the people in the setting resolve their main concern. This core category must be related to as many other categories and their properties as possible in addition to being central and recurring. The core category is readily modifiable, workable, and relevant. The core category may be represented as a basic social process which signifies the presence of two or more emergent stages. Not all core categories are also basic social processes. Basic social processes are pervasive and occur over time (Glaser, 1998).
B. Basic Social Process

Immigrating in Nursing was the basic social process describing how nurses within the pharmaceutical/biotech industry perceive and integrate support for their professional practice. Despite the specificity and personal nature of each participant’s narrative, “Immigrating in Nursing” continued to satisfy the core category characteristic of explaining the majority of behavior patterns and variations revealed. Immigrating is defined as, “becoming established in a new environment” (Encarta, 2011). In this study, nurses within the pharmaceutical/biotech industry sought support to preserve their traditional practice purpose while reframing their professional practice skills within a novel non-traditional practice setting. The evolution that participants endured within the non-traditional setting of the pharmaceutical/biotech industry ultimately aimed at restoring, supporting, and fostering their nursing professional practice. These aims were captured within the basic social process of Immigrating in Nursing. Participants filtered their new practice setting through their nursing perspective. This filtering yielded re-defined nurse identities, professional practice, and purpose to protect on a continual basis in the advancement of public health while striving to achieve belonging and ultimately nursing specialty actualization. Immigrating in Nursing was relevant to every participant’s story as they navigated a consistent path of maintaining these aims and worked to describe the process by which they restored, supported, and fostered their professional practice. The basic social process of “Immigrating in Nursing” involves the phases of: “Becoming Disillusioned”, “Acclimating into the Corporate Role”, Achieving Belonging”, and “Nursing Specialty Actualization”(Appendix G). The properties and sub-properties of each of the phases
will be described in detail and grounded within the data through integration of participant quotes within the discussion.

C. Phase I: Becoming Disillusioned

Participants described a typical path that served as the precursor to their decision to enter the Pharmaceutical/Biotech Industry and hence the initial phase of Immigrating in Nursing. The participants predominantly entered the path at the initiation of Becoming Disillusioned. Disillusionment is defined as, “disappointment caused by a frustrated ideal or belief” (Encarta, 2011). Participants detailed a series of events that occurred in each of their professional careers in which they were confronted by transformation within their settings which was not perceived as positive. Participants chronicled applying their familiar and usual adaptive coping mechanisms to deal with the changes thrust upon them but finding that the scope and nature of the changes was insurmountable. Upon the realization of no longer being able to tolerate and adapt to their setting changes they had reached a crux in their professional careers. The crux represented a decision point at which they acknowledged that they must explore all career options for the proliferation of their professional practice and return of job satisfaction. The completion of this phase was evident as participants exited traditional practice settings and entered the pharmaceutical/biotech industry.

Becoming Disillusioned conceptualized the sequence of decisions that precipitated their industry entry. Becoming Disillusioned originated among participants in Dealing with setting changes, Experiencing discomfort in their role, and Exploring Options. The advancement through this phase occurred over varying lengths of time for each
registered nurse. The culmination for each participant was the decision to enter employment within the non-traditional setting of the pharmaceutical/biotech industry. The progressive nature of Becoming Disillusioned is illustrated in a statement by Participant One:

*I worked at a hospital, where the hospital was at one time, it was run by Nuns. It was founded by the Sisters of Mercy, so when I first started at the hospital, the President of the hospital was a Nun, and she would make rounds every night. She would walk around the hospital and she would check on all the patients, and she would stop at every nurses station and every night at 8:00, you did your PM care for all your patients, you know you got to talk to them for 15 to 20 minutes, you changed their garbage, you rubbed their back, you know. You took care of them, it was that personal contact that, maybe they hadn’t had a visitor that day, you know they had that 15 minutes with you and then the hospital was bought by Mercy Health Partners, which is a Conglomerate and that stuff you no longer had time, I mean, like you’re lucky you could throw powder at them, than stand and talk to them for 15 minutes. So it turned, it moved from, you know, that focus of patient care, into, you’ve just got to move to get the next thing done and less staff, you know, you would call, because people would call in sick or whatever and you have no staff, you’re working with less people, people were getting sicker and you didn’t have the*
capability to take care of them and I mean, I was very, very scared that something really bad was going to happen one night because the staffing was so poor, you didn’t get enough time to really pay attention to what you really needed to pay attention to and I was really afraid that something was going to happen. It was time for me to leave. I miss it, I miss it terribly, but it was time to go.

**Dealing with Setting Changes**- One of the properties of Becoming Disillusioned is Dealing with Setting Changes. Participants in this study described the common experience of enduring system transformation through the course of their respective nursing tours within traditional practice settings. They compared their initial expectations from socialization within their nursing educational programs to the ensuing reality of the workforce and the subsequent evolution of the healthcare system. Participants conveyed a steady state of expected change throughout the years that they also related as part of “working in the trenches”. They described a sense of accomplishment and pride in their proven ability to adapt to these changes in conjunction with the various uncertain aspects that were a part of their positions. This property commenced when participants recalled the onslaught of system and institutional change. Participants noted that changes were common in traditional practice settings and usually accepted at face value until a level of overwhelm or decreased sense of quality was experienced. Participants described sensing a departure and deterioration within their respective institutions from the previous professional mission. The length of time varied with each participant. The boundaries of this property were associated with the initial recall of changes until the feeling of discomfort
in performing their role. Participant twelve described her previous seemingly automatic adaptation to changing acuity and nursing role expectations:

If they only knew that we use to manage Cardiac Arrest in an Emergency Room, like all that kind of stuff and how you were able to deal with different crises that came up, like taking care of multiple patients, like Critical Care patients when there’s no Critical Care beds. When I think back at like how did I do all that. How did I take care of two ICU patients, plus ERs, you know, when you’re talking about sick babies having convulsions

and stuff like that, how did I do it all.

**Experiencing Discomfort in the Role** - The participants progressed within

Becoming Disillusioned to Experiencing Discomfort in the Role. This property conceptualized how each participant found themselves arriving at a point in their careers at which they sensed an ongoing lack of ease with the evolution of their role and responsibilities. This property commenced with feelings of discomfort, fear, or overwhelm in the practice of their role. Participants noted wishing that previous nursing practice standards would return but also acknowledged that future potential positives would not offset the present deterioration. Participants repeatedly conveyed settling into a feeling of disillusionment with their respective settings. Participants concluded this property once they initiated exploring career options. Participants described levels of frustration at no longer being able to provide the level of care and quality they felt their clients deserved.

Participant one commented:
I think the hours and the politics and the business of nursing, turned into more of a money-making proposition than of a caring for people. Politics were becoming bothersome to me. That’s not why I became a nurse. I became a nurse to take care of people and to help them when their lives, you know, were at their worst and that wasn’t what it was...but I mean, it was more about the fact that I was no longer taking care of people, I was basically just trying to keep them going because there was so much paperwork and so much that needed to be done and there were too many people calling, it was just not, there was no quality anymore.

Exploring Options- Participants eventually arrived at Exploring Options within Becoming Disillusioned. Exploring is defined as, “making a careful investigation or study of something” (Encarta, 2011). This final property of Becoming Disillusioned detailed the careful investigation that participants conducted in order to inform their career decision-making. Participants commenced within this property upon their first search of the internet or job listings throughout the entirety of their searches. Of note was the predominant use of networking with colleagues that initially raised awareness for these participants of the career options available within the pharmaceutical/biotech industry. The participants overwhelmingly agreed that they possessed very limited familiarity with any of the roles for nurses within the industry but had uniformly desired change in their career directions. The property concluded with the entrance of the
participant into the pharmaceutical/biotech industry. The conclusion of the property of Exploring Options also heralded the conclusion of the phase of Becoming Disillusioned within the Basic Social Process of Immigrating in Nursing.

Participants had progressed through dealing with changes within their settings and experiencing discomfort within their roles. They were now confronted with a decision point in terms of evaluating their individual tolerance levels with continuing within their respective positions. Participants described assessing the employment opportunities that were both internally and externally available to them in order to ascertain congruency of all options with their professional practice and job satisfaction needs. Participant ten stated:

*You want to be challenged, but not overwhelmed, you want satisfying work, work that’s meaningful that does something. I did feel that guilt leaving nursing, coming into industry, knowing that there is a nursing shortage and a nursing shortage that will continue for a long time. I always felt that I was a good nurse and in a way I felt bad that I was leaving that industry, leaving patients that needed it, but the only comfort I found was coming here was knowing that it was a company with a meaningful purpose with developing products that I’m going to be preventing illness and disease that I’m going to be contributing someway here,*
although not in direct contact with patients, you know, but it was something that I was doing, so that meant a lot in coming here.

Participants described use of differing methods of conducting this search although predominantly through networking with fellow nurse colleagues to ascertain the breadth of prospects available. Two participants also described accessing the internet to direct their search for industry employment. All participants confirmed that they had not held prior knowledge of industry employment options for nurses until networking with nurse colleagues through which they gained access. They agreed that information or overviews of industry opportunities were not experienced within their varying educational backgrounds. The result of this circumstance was an overwhelming accidental discovery of the industry and its opportunities. Participant eight noted:

*I stepped into Pharmaceuticals by accident. I was looking for another hospital administrative position versus staff position. So, when this opened up, the company was starting with four (4) Senior Customer Account Representatives to answer medical questions, so I came into the company as one of the original four RN’s that they hired back in ’92 to answer medical questions from doctors about the products and then from there, stayed within the industry and have been very happy actually, by accident.*
The precursor phase of Becoming Disillusioned remains an important factor in explaining some of the ongoing rationale that participants described for having committed to Immigrating In Nursing into the Pharmaceutical/Biotech industry. Their journey of addressing their main concern of restoring, supporting, and fostering their nursing professional practice within the industry commenced with the entry into the pharmaceutical/biotech industry within the process of Immigrating In Nursing and the phase of Acclimating into the Corporate Role.

D. Phase II: Acclimating into the Corporate Role

Acclimating is defined as, “adjusting in response to a change in environment or status” (Encarta, 2011). Participants in this study recounted having done this during their process of Immigrating In Nursing. Acclimating into the corporate role is a progression that incorporates four properties: Filtering Through the Nursing Lens, Integrating within the setting, Developing through Immersion, and Perpetual Defense. The progression of this sequence occurs over varying lengths of time from individual to individual. Participants noted ranges varying from 6 months through 3 years with the property of Perpetual Defense extending into the remaining phases of Achieving Belonging and Nursing Specialty Actualization. The phase of Acclimating into the Corporate Role concludes with the participant reaching independence having attained a level of competence and understanding of professional practice within their position as well as of their role responsibilities within the organization and industry. Participants underwent both formal and informal orientations which included orientation to the company as well as to their roles during this phase. They marked the successful completion of this phase upon independently assuming the functions of their roles.
Participants chronicled progressing through several transitions and challenges upon entering the industry with simultaneous occurrence of the properties and continuous movement within the properties of the phase of Acclimating into the Corporate Role. The continuous and simultaneous movement occurred dependent on daily priorities and activities. Participants described reliance on their nursing skill-sets to initially translate role responsibilities within their professional practice. This translation allowed participants to redefine their professional practice purpose. Participants noted the process of acclimating to the corporate environment and culture as well as the redefinition of professional accountability. In addition to these ongoing transitions, participants recounted their learning curve related to the newly encountered industry language of acronyms, terms, and regulations. They noted the perpetual existence of negativity experienced from contacts external to the industry reflecting societal and discipline perceptions and their evolving reactions and responses through the years of their varied tenures. The completion of this phase was evident as participants noted a sense of competence and confidence in their understanding and independent performance of professional practice within the organization and industry. The progressive nature of Acclimating into the Corporate Role is illustrated by a statement from Participant One:

*I think that by selection of sites, you know, having a good rapport with the staff, you know, being able to help develop protocols, helping to set the clinical plan on the right road, talking about you know, how many blood draws a child may*
have. You’re taking care of those kids by, you know, listen you can get away with taking this much and not this much, but you’re still taking care of people. You may not have direct contact with those people, but you’re still in some way looking out for their welfare. That’s what we do.

Filtering Through the Nursing Lens - Filtering is defined as, “putting something through a filter to recover something” (Encarta, 2011). The first property of Acclimating into the Corporate Role is Filtering Through the Nursing Lens. “Meanings of properties of the categories must be generated through constant comparative analysis along with constant verification until saturation is achieved” (Glaser, 1998, p. 146). Participants in this study described the experience of abruptly not using the technical skills they had become adept at using within traditional settings. They had been defined by their traditional setting practice and now found themselves in uncharted territory. While being willing to try this new world out as a nurse within industry, they admitted not knowing what to expect. They also noted unfamiliarity and lack of awareness of the need for professional nurses within the pharmaceutical/biotech industry both personally and among family and peers. Coupled with this unfamiliarity were questions and confusion as to what a nurse’s professional practice might entail in such a setting. Participants relied on filtering their new practice setting through their nursing lens. This familiar view of the world and innate problem solving method facilitated the translation of their practice toward application within the pharmaceutical and biotech industry. Participant 15 illustrated her initial reactions:
It probably took me six months to realize that the work that I was doing was also nursing, but it probably took a good six months when I first started my job and because I had defined myself as being a clinical nurse specialist and doing direct care and doing case management.

Participant two commented:

Medical information was difficult at times because you have information that you’re allowed to use because it’s approved and you can’t go beyond that. So, you may have people calling and for example, you kind of have to keep your opinion out of it, so, you know, if people are calling and saying “well the pharmaceutical did this”, you know, of course we take the adverse event report and even though I want to say to them “there’s no evidence that shows that” and sometimes they also say “well, what’s your opinion” and my biggest response to them was “my opinion doesn’t matter”, my job is to give you all the information that’s available, that’s accessible, and then you can make your own informed decision and I’ll give you the information that I feel is/are from valued sites, that you can go to and get the information that you want to research about.

Participants discussed the natural ability to maintain their practice within the ethical standards that they had previously practiced within traditional settings which served as a guide in filtering their new responsibilities. Participant two described her nursing problem-solving:
In Pharmacovigilance... I sit at my desk and write up the reports and review the case and it’s my responsibility to determine, “am I gonna lock it” or am I gonna do more follow up, what am I gonna do”. I’m gonna assess the case and do I have all the information that I need to feel comfortable locking this case, where if the FDA comes in and says “why didn’t you follow up” I can give them a good reason why I didn’t, so there’s key elements that we’re looking for especially one being recovery status and you want all the information you can about the products, that you can investigate the products as well if there’s any kind of trend that shows.

Participants discovered that they were filtering not only for themselves in the translation of their skills but also filtering for the patient or clinical perspective. They were able to isolate and prevent potential ethical or practical concerns in advocating for the patient perspective. These perspectives were valued by the industry and led to improvements within clinical trials and the research and development of products. Participant seven noted:

*I think, probably one of the biggest things that you see nursing come through in our role versus people that do not have a nursing or nursing role, is probably more of the practical hands on piece of you know either conducting the trial and/or procedurally where, you know, things that may be written procedurally in a protocol, may not make sense clinically, it looks good on paper but then when you actually have to apply it, you can definitely see where the challenges may be.*
You know, some examples may be just with recruiting a certain population of elderly, sick subjects that may have COPD and one of your clinical procedures may actually have to be, involving having telephone calls with them. Most people would be like, “Oh, ok, that’s no problem” but with a nursing background they go “wait a minute, I think I have COPD in there”, they have to spend 6 to 7 minutes on the phone call they get winded from just being on the phone call answering questions, so you mention this to your clinical team and just in regards to planning instead of 6 to 7 minutes, you can include more time in your phone consent, this may take longer and/or it may also impact bottom lining the budget for the call center that may be connecting the phone calls because we have to take more breaks to let the person catch their breath. Those are more practical things that you can bring forward as being a nurse and where people without nursing experience, may not necessarily know. If you, in our one clinical trial, we’re making almost one-million minutes of phone calls over a year and if you’re adding a couple minutes to those phone calls, each minute is almost $1.00, so adding a couple more minutes, and the phone calls may add a few more million dollars to a budget that wasn’t necessarily planned for.

Participant twelve stated:

Then when the nurse comes in, I think the nurse kind of sees it all, and that’s how, because we always, in hospitals it was always like total
primary care, looking at the whole big picture, making sure that

Dietary was on time for a patient, especially if it was a Diabetic,

ensuring that you know, if somebody needed blood, you know, you just

basically, it’s the whole patient and then you had to incorporate the

family at the right time and say the right thing and if there was a
dead, then you would have to notify the Funeral Home and if there
was a disaster, you’d have to know the level that you had to call in

some type of a disaster going on in the hospital. So there, we always,

we weren’t ever in a silo, we always had everything else to think about

and we were always, Nursing Care Plans, because look at our

Nursing Care Plans, we always had to anticipate problems, so if I had

a patient that was elderly, I had to anticipate that she might fall, so I

have to keep the side rails up, well, that’s what we have to do here too,

so if I know that I’m doing something here, I better have a Plan B in

effect you know, just anticipate the problems that could occur and

have a Plan B just in case. And it’s just, we just have like a broader

picture. I think that a lot of times maybe, it’s probably hard sometimes
to make a decision is because you have all these other things coming

into your mind. You have a lot of things to consider, it’s not just this

Silo, looking at your one area.

Such examples of practical significance provided clarity to participants

regarding their redefined purpose and reframed the importance of their accompanying

skill-sets and perspectives.
**Integrating Within the Setting** - Another property of Acclimating into the Corporate Role is Integrating Within the Setting. Integrating is defined as, “becoming an accepted member of a group and its activities” (Encarta, 2011). Participants gained insider access and understanding of the corporate culture and were engrained with the re-definition of professional accountability that contrasted their traditional practice setting experiences.

This property conceptualizes how each participant navigated the corporate culture that they encountered and the re-definition of professionalism and accountability for tasks that they felt were in contrast to previously experienced practice settings. For each participant this integration within the setting was how they had personally operationalized the aspects of their “soft” professional nursing skill-set that they perceived as most frequently utilized to facilitate task achievement or team progress and of greatest value within this novel setting. Participants also gave specific examples of instances in which they had personally felt that their nursing related contribution was valuable. Participant Ten commented on the contrast of cultures:

*It’s more professional, well the whole environment is more professional. I think if I was to be a Manager here, to manage other Clinical Trial Managers, I think it would be a world of difference than managing nurses in a hospital. I think here, and not that, this isn’t going to sound right, not that nurses aren’t professional, but some of them aren’t, you know they’ll spend two minutes at the bedside and twenty minutes chit-chatting behind the desk when there’s more that they can be doing at the bedside. I’d expect everybody to perform the*
I think it’s the, there’s certainly a Corporate Culture and then the interview process that I went through and that I’ve had the experience of being on the other side and assisting with the interview process when the last group of people was hired, it’s tough to get, to get in. If you’re let’s say, one of ten candidates, first you have to get through a telephone screening and that general assessment to see, get your attitude, where you’re at, what you want to do and you have to present yourself professionally and positively and then the personal interview, to get a feel of who you are, to learn about your background, some of
your experiences, so unless you get experiences and professionalism to build upon, you’re not going to get in. So, those that do get in are already here with the professional attitude that, “I’m here to make this work”, “I’m here to work hard”, “I’m here to do my job”. “It’s up to me, there’s nobody gonna pick up the pieces if I don’t do it”.

Participant eleven stated:

*I’ve made a point of, I think because of my professionalism and my interactions and also the fact that I follow through and I’m accountable, I think that people value that and that’s what I’ve seen is valued here in the company from my experience, and so that then, it’s recognized as such. I’m thinking of the other nurses that are in our department or someone in health care and I would think the same for them. If you do a good job and you’re able to provide answers and follow through, then I think that that’s what’s recognized.*

An immense part of Integrating within the Pharmaceutical/Biotech Setting for participants was the contrasting experience to practice within traditional settings in which the nursing assignment was finite and bounded as a temporary entity in time. Nurses described the typical shift in a traditional setting in which your responsibilities ended at the conclusion of your assigned shift. Participants echoed the continuing nature of the role responsibilities within the industry and how this responsibility was not something that other team members took over or shared. As a result, participants described a high level of motivation to ensure that their responsibilities were carefully attended to as direct reflections of their capabilities. Participant seven offered:
In a pharmaceutical industry and management of clinical research trials, you're kind of managing that project all the way through from the beginning to the end, so you have these problems and these issues every single day, when you leave work you still have the same problems and issues, you walk back into work you still have those same problems and issues so you kind of know where that, in some comparison that the follow through patient/project is all the time. There's some benefits, there's some positives and negatives with each. The positives when you left for the day as a nurse you're like “Pssssh, I'm done, I'm outta here, ain't nothing to worry about for the rest of the day”, but then, you also may not have seen patients get better and get out of there. Your positives being in project management are ok, you see a project and follow it through, see success with it and kind of know the status of it all the time, the negatives is you kind of know the status of it all the time, you're with it all the time so it's kind of a negative to that. There's some good things and bad things with each.

**Developing through Immersion**- Immersion is defined as, “involvement in something that completely occupies all the time, energy, or concentration available” (Encarta, 2011). Another property of Acclimating into the Corporate Role is Developing through Immersion. Participants continually strove to expand their knowledge bases through incorporation of new language, terms, acronyms, and regulations within their professional practice and decision-making. Participants described leaving traditional nursing practice settings with feelings of proficiency or
expertise related to medical terminology, technical skills, acronyms, and pharmacologic therapies only to be confronted with an expansive new language of industry specific terms, regulations, agents, and acronyms. Participants identified the learning curve that they encountered as a shock that essentially removed their previous self identified expert status and re-classified them as novices. Participants were eager to succeed in their new roles and engaged in every method of training and access to available resources in order to develop their command of the newly acquired language and to more effectively fulfill role responsibilities. Participant two illustrated her overwhelm with managing this immersion to develop into a contributing nurse team member:

_Honestly what I did, probably for the first (1st) year, honest to god, I had the package inserts with me every day. I would take them home, I brought home the Red Book by the AAP, I had the Yellow Book, Travel Book by the CDC, the General Recommendations by the CDC and then there was the Plotkin book and I referred to these everyday in my job, but the Plotkin book I didn’t bring home, but all the other references that I used everyday, I actually took them home pretty much every night at least for the first six (6) months and then every other night or whatever, probably for the first (1st) year, I was constantly reviewing them, where by the end of that year, I knew I didn’t have to look at them anymore. But that was the hardest thing, because none of it, I didn’t know anything about it in school, so, that was a little bit of a, I just had to kind of work on it a little bit because I didn’t have much knowledge in that area, but they did train here on everything_
that they wanted you to know. They reviewed all the product knowledge, so the training was provided as well so I think somebody can come in. I know a lot of people have come in with no background in this field and have done very well in like medical information.

Participant five stated:

I think for people coming into the Industry, that's usually a difficult aspect, because you come in and you learn one aspect and you don't see how all this information comes together for aggregate reporting, or how our Epidemiologists look at things and they're running different studies. You don't see that big picture until you've been here for awhile, then you realize how it all fits together. I always tell people when they first start in this department that it will take a good six months before you even feel settled and then it will probably take another six months until you really get an understanding of industry and what the purpose is, especially the Pharmacovigilance role and really drug safety as a whole.

Participant eight noted:

No and even people that I've brought in, that maybe have only ever done Critical Care Nursing, they have, I'm very honest with them, it takes at least three years to get to the level where they're comfortable enough, because it is so different than what they do, but at the same point, you know, through myself, through my managers, through other support groups, we're very supportive to new people coming in, we
afford the nurses the time that they need to adapt. Just like people that come in from non nursing courses, we adapt their training to get them to the same level that the expectations are for the role.

Participant two described her varied departmental experiences:

*I think, I found medical information, is something that they can train you, but you’ve got to put the time in to learn the products, if you don’t know your products, you’re gonna fumble and you’re not gonna be able to effectively answer the question being asked. They also have a lot of questions and answers that are approved by the Physicians which helps greatly, because there are no references for those, that’s a different ball game but, working as a CRA, I felt the training was really good at that time, you know for that position. Training is, has, I think, it’s quite an abundant amount of training now compared to back then, but you know the regulations have been changing over the years, we’re going back to the 90’s here, so it’s quite awhile ago, but yeah, they would send us out to like the Barnett, you know courses, just to get your introduction into clinical research, and what the CRA needs to know, just to get a good idea of this is what you’re responsible for and this is what you’re gonna be doing and then you actually go out with the people, you’re getting on the job training as you’re going with other people. In Pharmacovigilance, they think you get the technical training that you need, it’s really up to you to rely on your medical knowledge, where, I, you know, if I don’t know something I*
look it up, so that's where schooling helps, because they train you,

(look it up), so that's one way that I can say that my schooling, with 
the lack of actual nursing experience, where I fall back on school, it's 
just good habits, when you don’t know something, research it and 
look it up. So the training I think overall, in all of the areas that I’ve 
been in, is adequate, it's constant, it doesn’t stop, once your trained, 
you’re not done, you’re constantly going to updated GQ trainings, and 
internal procedural trainings, so...

Participants noted that the progression through this particular property was 
extremely variable and highly dependent on the department into which the nurse was 
hired. Participants consistently conveyed that the learning curve of new nurse 
employees to the industry did not reflect their prior knowledge base and that as a result, 
veteran nurses within this non-traditional specialty were integral in forming a 
supportive network for fostering development through immersion and ultimately 
acclimating into the corporate role.

**Perpetual Defense**- The final property of Acclimating into the Corporate Role 
is Perpetual Defense. Perpetual is defined as, “occurring over and over” (Encarta, 
2011). Defense is defined as, “a method or object for protecting something” (Encarta, 
2011). Participants described repeated episodes of defending their non-traditional 
practice setting within industry as well as their specific roles within it. In concert with 
the defense of their professional practice, participants were also defending their 
continued identities as nurses. Participants were initiated with perpetual defense upon 
entry into the industry. They worked to overcome their own sensitivities and disbelief
as well as to act as change agents by educating those with misinformation or historical
definitions of professional practice within industry. This property continued to exist but
subsided in importance as participants progressed in their process of Immigrating in
Nursing. Final placement of this property within the phase is not reflective of the actual
time of its occurrence as this property commenced with the participants’ entry into the
industry and extended beyond completion of the basic social process of Immigrating in
Nursing. Perpetual Defense conceptualized how each participant engaged in conflicted
feelings and internal struggle regarding the perceptions and/or reactions they now found
themselves the recipients of from nurse colleagues external to the
pharmaceutical/biotech industry. Participants experienced nostalgia for their previously
known roles but also a sense of duty for their newly discovered practice area and the
important contributions they found themselves making. Participants acknowledged the
realization that the loss of any traditional technical skills also signified greater
separation from traditional nursing practice both to themselves and to their non-industry
colleagues. Participants recounted multiple instances of having to qualify their every
action or decision within the industry in order to convince non-industry nurse
colleagues of their actual nursing practice as well as the nature of the specialty
knowledge base that they had acquired. A distinct challenge accompanying the process
that participants found themselves navigating in learning the scope and expectations of
their new roles, they were painfully aware of negative perceptions and even disdain
from members of their own professional group external to the industry. Participants
acknowledged the historical infamous scandals associated with the industry and the
resulting impact of those ill practices leaving a legacy of negative connotation and
mistrust on all associated with the industry. The pharmaceutical/biotech industry itself carried with it an additional stigma that was recounted by participants as evil and not to be trusted or engaged with. They conveyed the awareness that such enduring perceptions permeated even the impressions of the nurse colleagues that they had longstanding relationships with as well as newly encountered nurse colleagues. The result of this challenging property of Acclimating into the Corporate Role was to minimize or negate both the self and professional nurse identities of the pharmaceutical/biotech nurse. Subject one stated:

> There are some nurses out there that don’t think you’re a nurse anymore because you’re not practicing clinically.

Subject two elaborated:

> Even from people that I went to school with that are nurses, when I told them what I was doing, it was “Oh why are you doing that?”, “No you gotta do this.” They didn’t understand, they were trying to get me jobs, you know, “Maybe I can check here for you…”

Subject four noted:

> My two best friends, one works in the ER and her experience is not anything like she doesn’t ever talk about research that she hears about or industry in that kind of positive light. On the other hand, my other friend is very involved in poster presentations and journal article writing and she has her master’s degree. She always comes back with all these questions to me and says, “Is this what you do?” and is
always eager to talk but my ER friend is really not interested at all and if I had to say it, I think that she is one of those people that thinks, “I am the only nurse anymore”. Even though she’s a good friend of mine, I really do feel that she kind of has it in the back of her mind sometimes.

Participant four recalled:

Other nurse friends of mine, or others, or what not, they have that impression that the only way you’re really a nurse is if you’re a nurse in the hospital and so when you talk about being a nurse, they frequently say, “Oh well you’re not a nurse anymore” and you have to explain to them that “Yes, I’m still a nurse, I’ll always be a nurse.” It’s interesting sometimes because even my nurse friends sometimes tend to blow that off a bit, like they’re just like “What do you do all day?”

Participant six stated:

I think, nurses who work, and this is my perception, is that there’s a quick guess that our role is just focused on the productivity of the company. So what I have heard from some people is that “Oh sure, but, you’re doing that because your company just wants to sell product.” For some people who don’t know what you do and don’t know you, they may be quick in responding, thinking that your role is nothing more than a salesperson.
Participant seven noted:

*I’ve had people say, “Oh you work for a Pharmaceutical Company, well you used to be a nurse.” And I said I’m still a nurse, but because you’re not in that active patient care setting, they get a very different perspective of what you do, it’s like you’ve abandoned nursing and you really haven’t, you’re still incorporating those skills that you have as a nurse, you’re just applying them differently.*

Participant eight commented:

*I think there’s some negative perceptions in that, nurses in the industry have walked away from their original calling. They’ve taken a back door, going “I don’t want to do bedside anymore so I’m just going to go into industry”. I think that’s definitely the negative connotations I’ve seen here once in awhile.*

Participants differentiated that fellow industry nurses were a source of comfort and support through the successive realizations of what they had seemingly additionally relinquished including their nursing identity. Participant three noted:

*For those of us that worked in the hospital setting or you know, out in the community as nurses, I think that we have a tighter knit group. It does seem like we gravitate towards each other in this setting.*

Participant nine described the internal industry support:

*But I think there’s certainly a special bond between me and my fellow co-workers who are nurses, so certainly, I think, people I think within*
the industry just respect you. They have high respect and high regard for the nurses I think within this industry and out in the public as well.

Participants also soon realized that these negative impressions and reactions were not limited to non-industry nurses but had also permeated the viewpoints of those persons that they would normally depend on for support, their families and friends. Participant two described reactions she received when getting hired at her company:

*When I first started working here, people are like, “Oh you’re not gonna use your degree?” It was really kind of looked down upon.*

*When I first graduated and told my family that I was gonna take a job here and work in the medical information division, my mother’s response was, “Aw, are you sure you’re not going to use your degree?” I said, “What are you talking about, they require you to be an RN.” “Oh,” she had no clue.*

Participants described the non-existence of expanded definitions of nursing practice or of exposure to non-traditional nursing practice settings within their varied educational background experiences and the potential consequence of a limited awareness of career opportunities by new graduates as well as veteran nurses. Participants likened the denial of their nursing practice by non-industry colleagues to decreased visibility of non-traditional practice within the pharmaceutical/biotech industry. Participant eight stated:

*So I think the nursing profession has been too dictatorial in saying that the only thing you can do after education is bedside, but they’re not preparing people for bedside, they’re not offering, they’re not*
letting people know what else they can do with their education. I think we’ve shot ourselves in the foot for years.

Participant twelve stated:

We weren’t prepared in nursing at all, well when I went back for my BSN, I mean we did, we had a rotation of research but never to this degree. I really wasn’t even aware of what nurses did in research and then I thought it was just limited to CRAs in the clinical area and then when I found out that there’s nurses that do different things, like, you know, PV is interesting and even with this prescribing information, It’s kind of, it’s totally, I was not prepared at all.

Participant Nine recalled:

I felt like a lot of the courses were geared around different types of nursing but it was still technically patient care. Whenever we discussed alternative nursing, it was management and teaching.

Participant Thirteen noted:

Yeah. I think down in the lower level, they should be told about it because why, you know, unfortunately, what if you then pursued your BSN in, or BSN when then, you later on learned, geez, maybe that would have been better to have been an Occupational Nurse, you know, or Pharmaceutical or something. Early on, you need to know the different paths you can take. You can make a good decision. Because you can’t make a decision until you know all your options.
Here you might have made a decision and not even included one of your options.

Participant eight elaborated:

In industry, the only thing I ever was aware of was that nurses would be sales people and I knew I did not want to be a sales person, that was the only thing I was aware of that nurses were doing, did not know about the research side of it.

Participants acknowledged the focus of undergraduate level nursing education programs related to preparation for bedside nursing practice resulting in a lack of recognition or acknowledgement of non-traditional practice within programs or on NCLEX. Participants however also noted the potential opportunities that existed for continuing education as nurses specialize. Participant eight suggested:

CEUs are wonderful, you know, to make sure we maintain our license, but the categories of CEUs are very interesting on how they’re dictated. They are very bedside driven, they are hands on driven. There are no non-traditional categories. Everything that’s there is directed towards that bedside care, whether it’s Pharmaceutical.... Things along those lines, but it’s always driven back to our Core Nursing Education. I’m not aware of anything for alternative to that, which, maybe there should be a sub category that, oh yeah, you max out on the CEUs, but something in there that’s an option for people to consider.
Participants agreed that the negativity received from non-industry nurse colleagues as well as the lay public was an ongoing and sporadic experience that extended past their achievement of acclimating into the corporate role but that it eventually transformed for each of them from direct confrontation to interference and finally to “background noise”. This transformation was noted to occur over time and was recounted as more offensive and personally destructive early in their pharmaceutical/biotech industry careers but gradually subsided as they progressed in their specialization within industry. Despite apparent oversight that nursing practice persists in non-traditional settings, the consensus of participants was that they were confident that eventually as nursing practice definitions expanded, perceptions would also change first among fellow members of the discipline followed by the lay public at large. Participants described developing a level of diminished sensitivity to this property as they emerged from acclimating into the corporate role and entered the phase of Achieving Belonging. While this phase is characterized by greater variability than the remaining phases of Immigrating in Nursing, it is also comprised of components crucial to the successful achievement of Immigrating in Nursing. The level of importance of successful mastery of each of these properties is further reflected in the prolonged time span in which each is nurtured to be achieved independently. Upon the milestone of successful mastery and independence, participants entered the phase of “Achieving Belonging”.

E. Phase III: Achieving Belonging

The third phase of Immigrating in Nursing is Achieving Belonging. Belonging is defined as, “the state of being accepted and comfortable in a place or group”
The realization of attainment of this goal signified arrival for participants at a new milestone in their professional practice. Achieving Belonging is a progression that incorporates three properties: Recognition of Organizational Acceptance, Recognition of Self Achievement, and Recognition of Nursing Value within Industry. The progression of this sequence occurs over varying lengths of time from individual to individual. The transformation concludes with the participant having the sense of attaining a level of proficiency in recognition of both their own contributions and those of nurses within the industry toward patient and subject advocacy and advancement of public health. Participants were now deemed role-models and preceptors in their application and demonstration of their roles in contrast to their previous central focus within the Acclimating into the Corporate Role phase of achieving a basic level of competence for their own independent job completion. They were now being asked to share their knowledge and role performance methods with others which represented an extension of their scope and reach of impact. Participants described a gradual realization that they were now considered insiders within the organization and industry through tangible examples including selection by the setting to precept other new nurse hires, validation through feedback and annual appraisals, and the privilege of “flagship projects” or high profile special assignments. Participants noted a sense of self achievement that accompanied many of the organizational methods of acceptance in addition to occurring in isolation as a result of personal gratification from the knowledge of having averted threats to quality or ethical standards. Participants also reported the realization of the value of nursing within industry through examples of ongoing support for their credentials, ongoing professional development,
RN specific roles, and increased recruitment. The completion of this phase was evident as participants described having attained a level of proficiency utilized to orient, lead, and role model for others. This signaled the expansion of the participants’ skill-sets beyond their own individual achievement toward development and advancement of others within the organization to replicate their practice methods toward client advocacy and the advancement of public health. The progressive nature of Achieving Belonging is illustrated by a statement from Participant Fifteen:

*So what I mean is that once you have learned the language and have gotten oriented you feel like you belong. Then once you “belong”, you can actually do more. Then you begin to achieve – you get things done. To use one of the corporate phases – we become results driven. We are able to see the things that need to be done, we can anticipate change, we anticipate problems and act to make things better.*

**Recognition of Organizational Acceptance**– The first property of Achieving Belonging is Recognition of Organizational Acceptance. Acceptance is defined as, “willingness to treat somebody as a member of a group or social circle” (Encarta, 2011). Participants described reaching points within their new practice setting careers at which they realized acceptance, validation, and approval from the organization. They noted these occurrences among interactions within multidisciplinary teams, being trusted with additional responsibilities or new committee assignments, at annual appraisal reviews, receipt of unanticipated bonuses, and assignment to special high-profile or “Flagship Projects”. Selection as preceptors for newly hired nurses was also a signal of organizational acceptance and recognition as this role was not an automatic responsibility afforded to everyone through tenure within the company but instead was
viewed as a demonstration of the confidence and trust that the company held in the outstanding individuals honored with this privilege. Selection as a preceptor served as an extrinsic motivator as participants acknowledged that they did not expect this honor since they were not assured of receiving it. Therefore the unexpected arrival of this selection also served to herald the recognition of organizational acceptance of the participant’s professional practice. Participant ten described the natural maturation that he had attained as he became regarded as a resource for others:

*I think it’s just something natural, if I’m reviewing something, even again about medications, AEs, SAEs, things like that, maybe I’m not consciously aware of “oh, I answered that because I’m a nurse”, “or is it because of my experience in research now”, I know what they’re looking for, I know what they’re asking, I know what the problem is. I think it does contribute, but I can’t quantify it. I am aware of occasionally, co-workers who aren’t nurses, that would come to those of us that are, and ask for our opinions on different things, questions...*

Participant fifteen stated:

*I moved upward within my department and was selected to hold a global job aimed at global harmonization of departments and practices. Then from there was selected to lead the Pandemic Influenza project. The Pandemic Flu project used all of my nursing skills from analysis of the problem to designing a plan, to implementing and then evaluating the results and starting all over*
again. Of course, communication was the predominant mode during the pandemic.

Subject eleven elaborated:

I think the nursing piece brings like the education and the background and like I said there was times that I was able to offer from a nurses perspective, I don’t say it that way, but I’ll say, “Let’s consider this, because from the patient perspective we really need to really think about this” and that’s recognized.

Participant three commented:

The company has set up special assignments for those of us that are nurses in the event of a disaster. They invited us and you know, asked us if we would be interested in using our skills from previous settings in the event of a disaster and we have received reimbursement for our license renewals and continuing education credits as well as training for these potential assignments, they want us to remain licensed active practitioners. I know this is something not everyone can do. It made me feel valued.

Participants detailed Achieving Belonging through combined synthesis of Recognition of Organizational Acceptance, Self Achievement, and Nursing Value within Industry in some circumstances. The time lengths for each realization of recognition were at times in parallel but the meanings appeared distinct.
Recognition of Self Achievement- Another property of Achieving Belonging is Recognition of Self Achievement. Achievement is defined as, “something that somebody has succeeded in doing, usually with effort” (Encarta, 2011). Participants described the milestones at which they recognized their own proficiency. Examples included the sense of accomplishment that they gained from having recognized the value of their own contributions toward the ethical conduct of research as well as ethical health promotion and disease prevention activities. For some participants these realizations accompanied organizational recognition while for others, they outlined personal gratification from outcomes they impacted separate from any organizational accolades. Participants also noted their self-realization that their practice methods were revered when they received the honor of being asked to role model for newly hired nurses. The affirmation that their practice methods were to be proliferated amongst the newest RNs joining the setting was reflective of their successful drives for excellence. Participants noted intrinsic motivation and pride in their proficiency in their professional skill-sets within industry and in their assurance of ethical standards.

Participant three stated:

The people that are running the teams are hired to get it done, get it done fast, to get it done economically, and their goal, it’s not that they purposely want to harm anybody or make a potential risk, but they’re promoted based on how fast and how cost effectively they can get to the end and suddenly, I always feel like I’m Jiminy Cricket, that little conscience on their shoulders saying, “Wait, now wait, you can’t do that, you know this is missing or you have to put this in there.”
Participant six commented:

I think we listen, I think we observe, I think that we are able to look at things from what a patient might need or the way a health promotion message should be. We were just doing a brochure a little while ago and somebody put up a picture and they wanted to put it on the cover of the brochure of somebody holding a child upside down, the kid’s giggling and they’re shaking the child upside down. Now, I know that families do this all the time, but personally, I said no, no, no from the nurse perspective, we shouldn’t encourage this...you have to make sure that you are putting safe, appropriate images out there, you have to make sure that they are reaching the population and doing it correctly.

Participant fifteen noted:

Well, for example, I could provide the patient and nurse perspective of being ventilated. My first company made respiratory equipment and non-invasive ventilators. The Engineers did not know about the feeling of suffocation that patients have when they are suctioned. This was a revelation to them and eventually new suction catheters were developed. Another patient experience was the use of CPAP masks and machines – one of things that I made all the engineers do was to lay down and use the device with the mask for two hours – talk about an eye opener.... once they had experienced CPAP and some of the
side effects they made better masks and better machines – the masks were padded, the machines had humidification.

Participant eight stated:

*I use what I learned in nursing every single day, every single protocol I ever knew has Scientific background, has an understanding of operational expertise, how do we take our brilliant scientists mind and link the science that they have into how it’s going to actually apply in the field, so basic nursing skill sets, what’s happening in industry and how they stay very active and up to date on the science of nursing and what we can offer there, but also bring in the other side of nursing which is the patient side of it. Having worked bedside, having worked with individuals and still having that contact, what are the concerns about people, so, not only taking the science that I have, when I make it operational, “how’s it going to work” in the field, so it’s always there, I’m always using my science background and my nursing skills that I’ve developed over the years.*

Participants recognized that their specific individual contributions were valuable and considered at a proficient level which needed to be proliferated amongst newly hired RNs in order to continue to advance ethical advocating within the professional practice of the pharmaceutical/biotech industry.

**Recognition of Nursing Value within Industry**- The final property of Achieving Belonging is Recognition of Nursing Value within Industry. Value is defined as, “the worth, importance, or usefulness of something to somebody”
(Encarta, 2011). Participants described the experience of noticing expanding support for nurses within the Industry through the emergence of tangible examples that they started to recognize. The participants within this study noted a gradual awareness of additional nurses being sought after for positions as well as entire departments that required only registered nurses within their ranks. Descriptions of nurse traits and attributes emerged of particular value within the industry including the intimate knowledge of the medical setting, drugs, disease processes, technical skills, ethical standards, and the patient perspective. Participants shared historical knowledge of being the “First” RN in a department that has subsequently grown and actively seeks out additional nurses. Recognition of Nursing Value within Industry signifies the final property of Achieving Belonging. This property occurred both separately and in concert with participants’ recognition of organizational acceptance and self achievement. Participants described inclusion within the supportive network of nurses as well as being the recipient of support for their professional development and continued credentialing. Participants detailed expanded support in the forms of licensure renewal reimbursement, continuing education reimbursement, ongoing training, and increased job satisfaction and job retention among fellow nurses within their organization. Participant six noted:

*The company is interested and supportive of my efforts to maintain my certifications and licenses and continuing education has never been a road block for me, I frequently attend national conferences, I attend, um nursing association conferences so that I can stay up to date in the*
pharmaceutical field, the nurse practitioner field, as well as an opportunity to communicate with other nurses.

Participant three noted:

*I think as a nurse I have a better rapport with the physicians that work on the teams because we’ve been in the same place at different times in our lives and we have a little more commonality to draw from. Nursing comes out when we’re out at clinical sites and doing audits and we’re actually setting up the clinical teams and setting up the trials. I know the way a doctors office runs, I can run through the charts without any trouble. Nursing teaches you a patience and a method of working with people, multiple and different personalities, that I don’t think any other profession teaches you and it really helps me when I’m interacting with my colleagues and my customers.*

Participant eleven noted:

*They’ve been very supportive here I would say, about, they reimburse us for keeping our RN licensure up and for continuing education and things like that. If I wanted to go for my Doctorate, I mean there’s school support for that, so they’ve never deterred me or anything like that.*

Participants conveyed a sense of pride in their promotions and successes within the industry. Participant twelve noted:
Well I think it’s, I guess it’s, I like it because, I guess it’s just, when you think of a nurse, everybody’s in the hospital, so it’s out of the box, it’s basically, you’re out of the box and I think after twenty two (22) years of nursing, I was very comfortable in that setting and all of a sudden, this was a whole new career move for me and when I was like, forty-three (43) years old, where I didn’t know anything about computers, so I kind of, like I’m proud of myself because I was able to make the move and be bold enough to come here and let it work and I’ve been here for twelve (12) years. So, I think that, you know, I’m happy that I did try it because it would be something that I would always say “what is it like to be outside of a hospital setting”. So I think it’s great and of course the benefits are wonderful, the fact that it’s local, and also it’s like nursing in a hospital because you can go to different areas. Now I started off in Clinical, then I went to Regulatory Operations and here I am in Labeling and I’ve been in labeling since 2005 and now I’m looking, well you know, what else is here for me because I want to constantly develop and do something different because I just feel like after awhile you just stagnate and as you get older, I just want to do something with my mind and learn something new to just keep myself sharp, so, it is nice that there are different positions available too here that you can, and I think they encourage it to, I think they encourage you, you know move around,
have a fresh start, learn something different and just learning the business.

Participant eight noted:

Half of my staff now globally has a medical background. Of the fifteen (15) that have medical backgrounds, ten (10) of them are nurses, all of those nurses have critical care backgrounds. I specifically, when I have the opportunity to hire, I do specifically look for nurses with critical care backgrounds, for a number of reasons. One, they have a demeanor about them, they are very confident in what they do, they are used to dealing with very difficult doctors and very difficult situations and they have a reality, you can joke and say, you know, “what we do today, no one’s gonna die because we made a mistake on a piece of paper today”, however, in the long term, the quality, what we put into our documents and how we do our clinical research, impacts millions of lives. So Critical Care Nurses have that sense and they have a skill set that’s intuitive to them. A good Critical Care Nurse, does, at least my experience, has done excellent, excellent in the Pharmaceutical Industry because they are very grounded and they are used to working in very difficult situations. They have a very calming effect and they take leadership very well.

Participant fourteen stated:

Then they decided they wanted to have some nurses in Customer Service, so that’s when I came into Customer Service and pretty much
I was the first one and they hired a couple nurses about the same time and later on they moved us out into a whole separate department and I became the Manager of Medical Information. Yeah, I pretty much, when they started looking at moving us into our own area and even before that when we started compiling medical responses, they just always said, “it would have to be an RN”, because they felt more comfortable having an RN on a conversation with somebody, which I’m not standing over them when they’re having these conversations, so they felt it was better staying with Registered Nurses. So that’s the way we actually developed the department.

Participants described taking their duty very seriously and realizing where they were positioned within the industry with its charge to advance public health. Participant eight stated:

I’m very patient and subject oriented no matter what I look at, whether it’s a budget, whether it’s a protocol, whether it’s an informed consent, no matter what’s gonna be applied in the field, I always relate it back to a human, to a person and that is core value of nursing, something that was engrained, I still believe strongly in it today, because no matter what I’m doing from a business perspective. If I do nothing but budgets for a whole month and I don’t even touch Science, those budgets have an impact on how we’re doing our clinical trials ethically in the field and that’s very important. Plus, I’m very compliance oriented also, because compliance is patient safety.
So, beyond insuring that our budgets are realistic, it’s the patients, the formula we joked about before “informed consent”, it’s true. Patients are being informed, they are receiving the best medical care that we can provide and we take accountability for what we’re doing.

Participant twelve stated:

Well, what I like about being a nurse in this industry is, it just opens up the doors to so many different things and also you know from here, now I realize, it would be easier for me to go, you could go work for the FDA, you could work for some kind of Government Agency, you can get into Epidemiology, there’s just so many doors that have opened, working here in comparison to just being in a hospital setting and I think you develop much more confidence because you’re just a little bit more well rounded with what goes on in the industry.

Upon the completion of the phase of Achieving Belonging, participants entered the final phase within Immigrating In Nursing of Nursing Specialty Actualization.
F. Phase III: Nursing Specialty Actualization

The final phase of “Immigrating in Nursing” is Nursing Specialty Actualization. The term Specialty is defined as, “a skill, field of study, interest, or activity in which somebody specializes” (Encarta, 2011). The term Actualization is defined as, “making something real or making something come about” (Encarta, 2011). This phase incorporates two properties: Evolution to Expert and Satisfaction through Altruism. The phase conceptualizes the successful attainment of expert level nursing specialization and the validation achieved by participants of the reasons that they sought out a career in nursing. The culmination of this phase was evident in the level of expertise, confidence, accomplishment, and satisfaction conveyed by participants within this specialty nursing practice area. Participants recounted achievements including publications, research, and speaking on a national or international scale as well as planning for the future and next steps related to fostering the continual advancement of public health as well as professional development for themselves, the specialty, and the industry.

Evolution to Expert- Evolution is defined as, “the gradual development of something into a more complex or better form” (Encarta, 2011). Participants detailed their journey from essential novices within the non-traditional specialty practice setting of the pharmaceutical/biotech industry to experts in their respective roles. Participants noted the milestones encountered and the learning curves surmounted. Participants expressed pride in their designation among industry circles as resources or experts in their specialty. Participant 15 noted:
We are able to see the things that need to be done, we can anticipate change, we anticipate problems and act to make things better. It is very much like going through Benner’s stages of Novice to Expert...

Anyway, we are no longer just employees, we are leaders. We have achieved.

Participant six commented:

One thing I don’t think I talked about is the realization that “I’ve Arrived”. Well, ok so arrived isn’t really what I mean, but you know how in Maslow’s Hierarchy of needs as you move up the pyramid and through those stages, the top is self actualization? That’s me, I’m at the top of the pyramid. I know my job, I am making a difference to the company, the company recognizes that I have or am making a difference and they reward me or compensate me for doing so.

Although now that I think about it – didn’t someone just debunk Maslow? At any rate – I feel as if I have my own specialization in nursing as a nurse practitioner in Pharma. It’s a great feeling actually.

Participants described a consistent sense of achievement and contribution through their unique combinations of nursing professional practice skill-sets and industry expertise. They noted examples of being sought out for their known expertise in the specialty for purposes of consultation, future planning for their respective organizations or the industry specialty area. Participants described their ongoing professional development not only for their own interests but also those of the company or organization to
continually advance the standards and to plan next steps for the industry. Participants described arriving at a level of strategic planning for disease process specific research as well as population specific research in the constant advancement of public health.

**Satisfaction through Altruism** - Altruism is defined as, “the belief that acting for the benefit of others is right and good” (Encarta, 2011). Participants detailed their contribution and inclusion in “the bigger picture” and specified numerous examples of end products or ethical dilemmas for which they had played a part toward fruition and resolution. Participants conveyed overwhelming agreement that their practice now involved service to a global community for which every safeguard must be enlisted and ensured. Participants acknowledged that this broad mission of their non-traditional practice served as daily validation for the reasons that they had entered nursing as a career. Subject two stated:

*I think I get to see more results in terms of, even when you’re part of the team that results in product licensure, when you’re part of the team that’s kicking off products, just all the different things like that and it’s not on a small scale, it’s global, it’s not, you’re part of the big picture even though nobody knows who I am, I am part of the big picture which is kind of nice.*

Subject three noted:

*My job still has an importance in the betterment of mankind. So, that keeps me happy and the fact that I feel like I am contributing and that the people that I work with value my input.*
Subject four commented:

*Satisfaction is definitely related to big picture things so you really may think of the biggest widespread health problems and that if you get to work on something like that, like isn’t that cool, then take it to the other projects that we are working on in the new projects area and I can easily go back to when I was working in the hospital and know what a problem it was and how important it would be if we could come up with a new treatment or the only treatment for it.*

Upon the completion of the phase of Nursing Specialty Actualization, participants had successfully demonstrated achievement of Immigrating in Nursing into the non-traditional specialty practice area of the pharmaceutical/biotech industry.

**G. Summary of Immigrating in Nursing**

The four phases outlined within this chapter conceptualize the basic social process of how nurses within the pharmaceutical and biotech industry resolve their main concern of restoring, supporting, and fostering their nursing professional practice within this non-traditional specialty practice setting. Immigrating in Nursing is a multi-layer model that portrays the variable lengths of time that nurse participants navigated through their decisions and behaviors to successfully immigrate into the specialty practice area of the pharmaceutical/biotech industry. While the possibility exists that not all nurses that enter the pharmaceutical/biotech industry may experience success
within their quest to Immigrate in Nursing, there was no evidence of this within the interviews as all participants persevered.

**H. Meanings Inherent in the Theory**

The meaning inherent in the basic social process of Immigrating In Nursing is that participants who Immigrate in Nursing strive for excellence in their professional practice within their new non-traditional setting. Participants aimed to establish, support, and foster their professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry following disillusionment within previous practice settings. They progressed through acclimating into the corporate role, achieving belonging, and nursing specialty actualization. The time span for completion of the process varied for all participants dependent on the role into which they first entered the industry. Participants described subsequent role transitions or transfers as concluding more quickly as important baseline knowledge had already been established within their initial roles and immigrations.

Immigrating in Nursing resulted from becoming disillusioned within previous practice settings and the subsequent decision to enter the pharmaceutical/biotech industry. Participants then acclimated into the corporate role through filtering through the nursing lens, integrating within the setting, developing through immersion, and perpetually defending their choices and setting. Participants completed their acclimation into the corporate role with the inception of their independent functioning.

Participants progressed within their process of Immigrating in Nursing to Achieving Belonging in which they recognized their acceptance by the organization,
recognized their self achievement, and recognized nursing value within industry. Recognition was evident in annual appraisals, selection for flagship projects, ethical advocating, and tangible examples including support for RN credentials and preferential hiring. Participants emerged from the phase of Achieving Belonging having become proficient in their professional practice within industry and regarded as resources for other newly hired RNs.

The final phase of Immigrating in Nursing is Nursing Specialty Actualization in which participants evolve to expert within their specialty professional practice and achieve satisfaction through altruism. Participants were regarded within industry circles as experts in their areas and were sought after for publication opportunities as well as national or international speaking engagements. Participants described satisfaction from their role in the advancement of public health as well as the betterment of mankind. Participants sought to continually advance nursing professional practice for themselves, the organization, and the industry.
Chapter VI. Discussion of Findings

The findings of research conducted within the framework of the Grounded Theory Method characteristically emerge from the data to form a substantive theory. In this study, a substantive theory of Immigrating in Nursing emerged as a theory of how nurses within the pharmaceutical/biotech industry resolve their main concern of restoring, supporting, and fostering their nursing professional practice. This chapter will include discussion of the findings in relation to the extant literature. In addition, the contribution of this substantive theory of Immigrating in Nursing to the literature is addressed.

A. Relationship of the Findings to the Extant Literature

Although the literature search of data bases including: CINAHL, Medline, Pre-CINAHL, BIOSIS, PROQUEST, Health Source: Nursing/Academic, General Science Abstracts, and Science Citation Index Expanded yielded no existing research examining the process of nursing professional practice within the pharmaceutical/biotech industry, the extant literature was reviewed and compared to the study findings to provide insight into the significance and relevance of the research findings.

Immigrating in Nursing and Professional Practice Environments

The reality of interchangeable use of a variety of terms throughout the nursing literature to signify organizational culture reveals “nursing practice environment,” “professional nurse practice environment,” “clinical practice environment,” and “practice environment,” to name just a sampling (Aiken & Patrician, 2000; Grindel et.
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al., 1996; Hoffman & Martin, 1994; Tumulty et. al., 1994). All refer to organizational culture and have essentially referred to traditional work environments. The level of success that one might expect within the practice environment has been purported to be dependent upon the level of matched attributes and characteristics between the individual and the practice environment (Holland, 1958; 1959; 1962; 1968; 1973; 1985; 1997). People are drawn to environments that allow them to use their skills and talents and are congruent with their attitudes and values (Holland, 1997). It is also purported that environments mold their search for people via recruiting practices and alliances (Holland, 1997). Career satisfaction, stability, and success are dependent on the match between personality and the work environment (Holland, 1997). The findings of this study are congruent with the assertions of Holland (1997). Participants in the current study experienced a sense of belonging, achievement, and actualization within their non-traditional nursing practice in the pharmaceutical/biotech industry. Participants provided examples of use of their nursing skills and talents within this non-traditional practice setting. Despite the lack of nursing literature addressing non-traditional practice environments, participants described satisfaction, success, and professional fulfillment within the pharmaceutical/biotech industry. The findings of this study suggest a match between participant professional values and the attributes of the pharmaceutical/biotech industry.

In close association with the notion of career success based upon the match between attributes of the individual and the organization are the key characteristics of work environments linked with highly successful organizations. Organizational attribute models related to professional nursing practice and grounded in the magnet
hospital studies commissioned by the American Academy of Nursing in the early 1980’s revealed key organizational features characterizing a common core set of values among nurses in the U.S. (McClure et. al., 1983). The key organizational features became known as the “Essentials of Magnetism” and have been associated with positive client and nurse outcomes (Aiken, et. al., 1994). These nine features have been noted by theorists to vary in their presence across practice venues. Findings from this study suggest the presence of these elements within the professional practice setting of the pharmaceutical/biotech industry. The first “Essential” addresses maintenance of competence among the nurse workforce. Participants described the process in which they achieved competence followed by proficiency and expertise within the non-traditional practice setting of the pharmaceutical/biotech industry. The second “Essential” addresses nurse-physician relationships and communication. Study participants shared accounts of collegial relationships with physicians and of physicians requesting their counsel on clinical practice questions. The third “Essential” addresses presence of competent and supportive management while the fourth “Essential” notes ensuring autonomy. All participants perceived competence and support from their managers and team members as well as new found levels of autonomy that they had not experienced in previous traditional practice settings. The fifth “Essential” addresses facilitation of nurse input into clinical and policy decisions. Numerous accounts of nursing professional practice within the non-traditional professional practice setting of the pharmaceutical/biotech industry were related to the input that they were asked to provide or were depended upon to provide in order to ensure human protections. The sixth “Essential” addressed creation of flexible scheduling. Several participants
commented on the tangible benefits and work schedules that they enjoyed in the pharmaceutical/biotech industry that were in contrast to previous traditional practice settings. The seventh “Essential” addressed support for education. All participants noted the opportunities for lifelong learning and support for advanced degrees as well as ongoing continuing education related to industry regulations and requirements. The eighth “Essential” addressed adequacy of nurse staffing. This study revealed the perception among participants that the numbers of nurses occupying professional practice roles within the pharmaceutical/biotech industry was continuing to increase as they personally saw additional nurses sought after for departmental positions and learned of additional opportunities for nurses within other departments. The ninth “Essential” addressed maintenance of a patient-centered philosophy and high quality care. All participants shared that they believed in the quality of their professional practice and the impact that it made for current and future subjects and patients. While not originally created in relation to non-traditional practice settings, the “Essentials of Magnetism” appear applicable to the experience of study participants in the pharmaceutical/biotech industry.

In an effort to facilitate the career search of nurses toward highly successful and congruently matched practice environments, the American Association of Colleges of Nursing issued a white paper entitled, “Hallmarks of the Professional Nursing Practice Environment” (AACN, 2002). The position statement was written with the intent to be applicable to all professional practice settings and all types of nursing practice. The categories perceived to be critical to positive practice environments include: 1) a philosophy of quality care; 2) recognition of nurse contributions; 3) promotion of nurse
leaders; 4) empowerment of nurses; 5) professional advancement opportunities; 6) professional development support; 7) collaborative inter-disciplinary relationships; and 8) utilization of technological advances and resources. While the aforementioned hallmarks reflect and are consistent with the traditional practice environment attribute literature (Aiken, et. al., 2001; Best and Thurston, 2004; Blegen, 1993; Demerouti et. al., 2000; Flynn & Deatrick, 2003; Gelsema et. al., 2006; Laschinger & Finegan, 2005; Laschinger & Havens, 1996, 1997; McClure & Hinshaw, 2002; Tumulty et. al., 1994), the importance of these attributes or hallmarks in the support of professional practice for nurses within the non-traditional practice setting of the pharmaceutical/biotech industry has not previously been documented.

**Immigrating in Nursing and Philosophy of Quality of Care**

The existing literature related to the hallmark category of, “A philosophy of quality care” reflects nurse prioritization and commitment to the overarching quality mission of organizations and the sincere desire to uphold and adhere to that mission. Nurse respondents described the critical nature of “a patient-centered mission and vision” when examining their own professional practice and job satisfaction within the home health setting (Flynn & Deatrick, 2003). The importance of “making a difference” and “quality patient care” were noted among Canadian hospital specialty unit nurses (Best & Thurston, 2004).

The impact of nurse satisfaction on quality of care has also been noted as a theme within the literature surrounding traditional practice settings. McNeese-Smith (1999) noted that factors fostering job satisfaction included patient care while job dissatisfaction was primarily influenced by factors that interfered with the job and
patient care. Aiken, Clarke, and Sloane (2002) found concern among nurses with maintaining quality of care when examining the effects of organizational attributes. Job dissatisfaction was associated with work environment deficiencies that interfered with the ability to uphold and provide quality care. The authors found higher emotional exhaustion and increased job dissatisfaction likely revealing the nurses’ awareness and sense of responsibility for maintenance of quality care provision despite deteriorating work environment conditions.

Since the establishment of job satisfaction as a nurse-sensitive indicator reflecting nursing’s contribution to quality patient care in 1995 by the American Nurses Association, job satisfaction has been cited as a critical concern among employers and nurses within traditional practice settings with regard to the association between higher levels of quality of care and improved patient outcomes (Kovner, et. al., 2006). Job satisfaction has also been positively associated with autonomy, recognition, communication with supervisors, peer communication, professionalism, years of experience, organizational commitment, age, and fairness (Blegen, 1993; Gurney, et. al., 1997; McNeese-Smith & Crook, 2003). Significant negative correlations have been noted between job satisfaction and education, personal locus of control, stress, and routinization with strongest relationships between job satisfaction and stress and job satisfaction and commitment or turnover intentions (Blegen, 1993; Irvine & Evans, 1995).

The findings of this study validate the critical importance of a quality care, patient-centered philosophy and the impact of job satisfaction in relation to provision of quality care within the professional practice environment found in the extant literature.
The participants in this study shared the experience of a patient-centered philosophy within the pharmaceutical/biotech practice setting. Study participants conveyed concern over identification of and intervention in all potential human protection threats. Participants described the sense of satisfaction when they had proactively solved ethical concerns but also noted the realization that they continually remained vigilant to intervene as emergence of issues was unpredictable and often overlooked by non-nurse team members. Toward this end, all study participants related how they believed they each “made a difference” in their respective roles on a daily basis. Participants conveyed an overarching advocacy perspective in their translation of their professional practice in this non-traditional practice setting. Job satisfaction was unanimously communicated among study participants. They each verbalized the importance, contribution, and use of their nursing skills in the non-traditional practice setting of the pharmaceutical/biotech industry and a lack of practice setting deficiencies which contrasted each of their experiences in previous traditional practice settings. Organizational commitment was evident among study participants as they repeatedly proudly cited their years of service within the industry as well as how quickly the years had passed or how they expected to eventually retire from this industry having contributed “to the betterment of mankind”.

**Immigrating in Nursing and Recognition of Nurse Contributions**

The existing literature related to the hallmark category of, “Recognition of Nurse Contributions” reflects a variety of forms of recognition for nurse contributions having been studied in the literature without clarity as to whether any one form of reward or recognition is more highly valued than others. Work conditions such as a
good reward system involving congruence between workload and rewards have been found integral to job satisfaction (Demerouti et. al., 2000). Additional aspects of recognition noted to be of importance included performance feedback, task variety, job control, and supervisor support (Demerouti et. al., 2000; McNeese-Smith, 1997). Inverse relationships between motivators and disengagement among respondents have also suggested that deficiencies in motivators within an organization are associated with the development of a disengaged and indifferent attitude by employees toward their work (Demerouti et. al., 2000). A fair compensation program, salary and benefits have also been noted as factors fostering job satisfaction (McNeese-Smith, 1999; Price & Mueller, 1981). Cox (2001) further delineated that satisfaction with pay is noted among experienced nurses up to a threshold, at which point the top pay levels may represent limited further opportunities for increased earnings. The seemingly variable but bounded forms of recognition for nurse contributions vary between traditional practice settings and among experienced and novice nurses. The combination of undefined expectations, perceptions of balance and fairness between workload and rewards or recognition, and setting and experience variation provides evidence of the presence of satisfaction although not the level related to recognition of nursing contributions among nurses in traditional practice settings.

The findings of this study confirm the value of recognition and rewards within the professional practice environment found in the extant literature. Participants in this study described satisfaction and feeling valued for their contributions not only through annual appraisals, feedback, and support but also through tangible examples such as salary and benefits. Several participants openly noted that they would not reach the
salary they currently enjoyed without working several double shifts per week in their previous traditional practice settings. Other participants noted the addition of eligibility for bonuses or stock options based upon achievements in the non-traditional practice setting of the pharmaceutical/biotech industry. Participants discussed the limited availability for advancement within traditional practice settings through following the typical staff nurse, charge nurse, staff educator, nurse manager route in contrast to the apparent new world of opportunities that they now found themselves in. Participants also referenced the variety of additional benefits found within industry that they had not previously known including travel, educational support, expense accounts, or high-profile flagship project assignments. All participants discussed feeling valued as a nurse within the industry and they in turn felt that they brought value to the industry through their nurse perspective contributions.

**Immigrating in Nursing and Promotion of Nurse Leaders**

The existing literature related to the hallmark category of, “Promotion of Nurse Leaders” reflects the positive impact of nurse leader behavior on nurses’ job satisfaction, productivity, and commitment within traditional practice settings (Flynn & Deatrick, 2003; McNeese-Smith, 1997). Primary means by which nurse leaders fostered job satisfaction among staff nurses included providing recognition, praise and thanks; met nurses’ personal needs and provided guidance; used leadership skills; and met unit needs while being supportive of the team (McNeese-Smith, 1997). Organizational commitment among the staff nurses was enhanced by communication and leadership behaviors exhibited by nursing leadership. Productivity was noted to be fostered via recognition from nurse leaders. Job dissatisfaction for the nurses was
caused primarily by the perceived lack of recognition or of support, not following through with problems, and a lack of help from the manager when workload was heavy (McNeese-Smith, 1997).

The findings of this study validate the benefits of promotion of nurse leaders within the professional practice environment found in the extant literature. Despite the stark differences that exist between traditional and non-traditional practice settings, participants described a sense of pride, belonging, and a strong supportive connection from the advancement of fellow nurses within this non-traditional practice setting. The participants in this study derived motivation and satisfaction from the visible placement of nurses within high level positions and felt personal levels of incentive for the variety of advancement routes available to them within the non-traditional practice setting of the pharmaceutical/biotech industry. Several participants themselves had received numerous promotions and all could name nurse colleagues who held high level positions. Several participants discussed the excitement of future planning regarding which path they might be most interested in pursuing with regard to further expanding their professional practice within the industry.

Immigrating in Nursing and Empowerment of Nurses

The existing literature related to the hallmark category of, “Empowerment of Nurses” reflects improved patient outcomes, increased organizational commitment, and improved job satisfaction in the hospital setting that have been associated with nurse empowerment (Blegen, 1993; Laschinger & Finegan, 2005; Laschinger & Havens, 1996, 1997; McClure & Hinshaw, 2002). Greater nurse participation in decision-making has been found to contribute to greater job satisfaction (Gelsema, et. al, 2006;
Price & Mueller, 1981; Tumulty et. al., 1994) and greater intent to stay (Price & Mueller, 1981) Perceived deficiencies in nurse participation within institutional decision-making and thereby a lack of empowerment have been linked with decreased nurse satisfaction and retention (Aiken, et. al., 2001; 2002).

The findings of this study validate the benefits of nurse empowerment within the professional practice environment found in the extant literature. The participants in this study shared the shock that they felt with regard to the contrast in empowerment and autonomy between their previous traditional practice settings and the non-traditional practice setting of the pharmaceutical/biotech industry. Several participants described the level of responsibility and accountability that accompanied this new autonomy and the realization. Subject ten stated:

“It’s up to them to get their job done, they’re responsible for it, they can’t sit back and watch somebody else do the work and take credit for it. The (pharmaceutical/biotech industry) people are more professional and more responsible.”

Participants outlined the idea of continuous responsibility for assignments in contrast to previous traditional practice settings in which their responsibility ended at the conclusion of their shift. They were compelled to “see it through” and to ensure that every aspect was covered or addressed. With this new level of empowerment meant a new level of trust had been placed on their shoulders by their respective organizations. They recognized acceptance and confidence in their skills from the organization and serendipitously felt increased confidence in their own abilities to advance further.
Immigrating in Nursing and Professional Advancement Support

The existing literature related to the hallmark category of, “Professional Advancement Support” reflects professional advancement support as an important component of nurse job satisfaction and intent to stay (Price & Mueller, 1981). Promotional opportunity was shown to have a statistically significant influence on job satisfaction. High promotional opportunity contributed to greater job satisfaction and greater intent to stay (Price & Mueller, 1981). Aiken and colleagues (2001) provided support for the dissatisfaction that results when nurses perceive deficient professional advancement support.

The findings of this study validate the importance of professional advancement support within the professional practice environment found in the extant literature. The participants in this study shared the experiences of having received repeated promotions as well as having received the support to pursue additional coursework and obtain additional degrees. Participants contrasted their current experiences within the non-traditional practice setting of the pharmaceutical/biotech industry with their previous traditional practice setting experiences regarding professional advancement support. They described having access to “management tracks” within industry which provided them with additional education in business and leadership. They also described having pursued industry specific educational programs and certifications in order to expand their practice roles. All participants discussed the available opportunities that they now found before them that were not previously present in the traditional practice settings that they had exited. For those who had not anticipated a specific path for their industry careers, they described newly created positions upon receipt of additional credentialing
or education. Participants remarked that they recognized that their respective organizations encouraged and supported professional advancement to continually improve the contribution from every team member because the greater the investment in their personnel, the greater the outcomes and returns. For the participants, these opportunities and investments that their organizations had afforded them also equated to increased job satisfaction and intent to stay.

**Immigrating in Nursing and Collaborative Interdisciplinary Relationships**

The existing literature related to the hallmark category of, “Collaborative Interdisciplinary Relationships” reflects associations with nurse job satisfaction (Best & Thurston, 2004; Blegen, 1993; Decker, 1997; Gelsema, et. al., 2006; McNeese-Smith, 1999; Price & Mueller, 1981; Tumulty et. al., 1994) and decreased turnover intentions (Blegen, 1993; Price & Mueller, 1981; Shader et. al., 2001). According to Best and Thurston (2004), collegial relationships are more critical to nurse job satisfaction versus being of overall importance to nurses. Greater unit morale and better interpersonal relations were associated with lower intragroup conflict and less anticipated turnover (Cox, 2001). Job dissatisfaction was primarily influenced by factors that interfered with the job and relations with coworkers (McNeese-Smith, 1999). Additionally, the studies appear to indicate that the presence of a cohesive peer group may counterbalance other work environment aspects perceived to be inadequate.

The findings of this study validate the importance of collaborative interdisciplinary relationships to the professional practice environment found in the extant literature. The participants in this study shared the experience of having a greater connection amongst fellow nurses within the industry but also described the presence of
interdisciplinary consultation from fellow non-nurse team members requesting advice on clinical issues or concerns. Participants discussed the commonplace collaboration with physicians who had not practiced within specific clinical areas valuing their expertise and experience. The participants in this study further described the activities they engaged in where their intimate knowledge of the patient perspective and technical skills were relied on for practical implementation decisions. All participants relayed the applicability, adaptability, and relevance of their nursing backgrounds to the knowledge base and decision-making required within the non-traditional practice setting of the pharmaceutical/biotech industry. Participants believed they fulfilled valued roles to fellow non-nurse team members as the participants were able to envision and proactively avert the potential deficiencies or threats to quality and human protections with each project assignment.

Participants also conveyed an appreciation of the scientific and specialty area personnel that they routinely interacted with. Participants credited much of their continued professional development and specialty area acclimation to the support and sharing that fellow non-nurse team members openly offered. Participants attributed increased ease of transition to the corporate culture through the professionalism of their interdisciplinary colleagues and the willingness to serve as resources to the participants upon their entry into the non-traditional practice setting of the pharmaceutical/biotech industry. Participants admitted to initial feelings of insecurity related to the unknown upon their arrival into industry but discovered that previous experiences in traditional practice setting experiences of “nurses eating their young” as novice nurses became engrained in their first practice settings were not ascribed to in the non-traditional
practice setting of the pharmaceutical/biotech industry. The participants in this study described a feeling of being welcomed and supported to acclimate and develop both by nurse colleagues and non-nurse colleagues within the pharmaceutical/biotech industry.

**Immigrating in Nursing and Utilization of Technological Advances and Resources**

The existing literature related to the hallmark category of, “Utilization of Technological Advances and Resources” reflects associations with job satisfaction and concerns related to the availability of tools to provide quality care (Best & Thurston, 2004; Tumulty et. al., 1994). The literature is limited to the traditional practice setting.

The findings of this study validate the importance of utilization of technological advances and resources within the professional practice environment found in the extant literature. The participants in this study discussed their introduction into the use of numerous computer programs for capturing varying data and for communicating with other agencies. Participants described a steeper learning curve at the inception of their industry careers when they had initially left traditional practice settings that did not rely heavily on computers or associated technology. Participants found themselves in new territory with new language, new regulations, new acronyms, and new technology to which they had to acclimate simultaneously. Several participants specifically remarked that they held a sense of pride for having immersed and acclimated to so many dramatically different aspects of technology and resources. Additionally, participants recounted numerous examples of having been “the first” to conduct specific actions or tasks through technology or being involved with “the first” electronic licensure filing to the Food and Drug Administration (FDA). Participants noted that the continuous speed
of technological advancements continues to update and outdate how past practices were conducted and as a result they continue to learn and advance each day.

**B. Contributions to the Current Literature**

As stated previously, no other research has examined the perspective of nurses who engage in professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry. This study offers access into the experience of nurses who have immigrated into the specialty area of the pharmaceutical/biotech industry to conduct their professional practice by revealing the process through which they engage to restore, support, and foster their ongoing professional practice. The findings of this study suggest that nurses within the non-traditional practice setting of the pharmaceutical/biotech industry believe that they professionally practice in a specialty area that is not acknowledged or well understood by the discipline of nursing or the public. The findings of this study offer several additional contributions to the current literature.

The first contribution from this study to the current literature is an inside view of how nurses decide to immigrate in nursing into the non-traditional practice setting of the pharmaceutical/biotech industry. The foundational assumptions of this study acknowledge that nurses view traditional practice settings from both positive and negative perspectives. Additionally, nurses do not always spend their careers within traditional practice settings. Therefore, nurses must determine whether they will continue to professionally practice within traditional or non-traditional practice settings. The current literature does not include research on the perspectives of nurses regarding decisions to professionally practice within non-traditional practice settings such as the
pharmaceutical/biotech industry. As a result, an important contribution of this study relates to the decision-making of nurses who leave traditional practice settings to pursue non-traditional professional practice. The literature does not address the immigration of nurses from traditional to non-traditional practice settings. Regardless of the participants’ awareness of non-traditional practice settings, their decisions to exit the traditional practice setting and enter the non-traditional practice setting were the culmination of a series of decisions and actions. They each conducted a careful assessment of the options and ultimately committed to a novel professional practice trajectory.

The findings of this study also contributed to the current literature through providing a view of the manner in which nurses respond to undertaking specialization within a completely foreign area of professional practice, the non-traditional practice setting of the pharmaceutical/biotech industry. The assumption has been that nurses can transfer to new specialties at any time with an orientation and/or preceptorship. Despite the provision of orientations, participants described the stark realization that their previous expert status within traditional practice settings did not neatly transfer into their new practice role with the largely unfamiliar language, acronyms, and technology. Participants described evolving from a novice within the non-traditional practice setting despite having been experienced nurses within previous traditional practice settings. As such, participants were able to share the decision-making, actions, behaviors, and associated milestones that they pursued in order to successfully immigrate into the non-traditional practice setting of the pharmaceutical/biotech industry.
Another contribution from the findings of this study to the current literature is related to the understanding of the types of practice settings in which nurses may professionally practice. While the settings for nursing practice have been formally expanded to acknowledge “pharmaceutical companies” as well as other non-traditional practice settings within the Scope and Standards of Practice of Nursing (ANA, 2004), the effect has not been seen within the discipline. Subsequent revisions of the Scope and Standards of Practice of Nursing (ANA, 2010) revealed the removal of the specific notation of “pharmaceutical companies” among other previous newly referenced practice settings to be replaced with the statement that the scope and standards of nursing apply to all practice settings in which nurses professionally practice. While more encompassing, the removal of any specific mention also removes any additional visibility that nurses within the pharmaceutical/biotech industry had hoped to expect.

Participants described multiple examples each of defending their professional practice against perceptions of negativity or invalidation received from both non-industry nurses and the public. The participants in this study shared their experiences in hopes that with increased awareness, perceptions among the discipline and society will evolve to understand the advocacy roles that they occupy toward the advancement of public health.

C. Summary

This chapter has presented a discussion of the substantive theory that describes how nurses within the pharmaceutical/biotech industry resolve their main concern about restoring, supporting, and fostering their professional practice; the process they undergo in order to immigrate in nursing into the non-traditional practice setting of the
pharmaceutical/biotech industry. The findings of this study were compared to the state of the knowledge of professional practice environments in the extant literature. The contributions of the findings of this study to the current literature were delineated and discussed.
Chapter VII. Conclusion

Despite increasing numbers of nurses exiting traditional practice settings, progress by the discipline to examine the range of non-traditional practice settings attracting nurses has been sluggish. In the face of prolonged nursing shortages that have been reported across all traditional practice settings within the US (Buerhaus, Staiger, & Auerbach, 1999; 2000; 2003; 2009), there has been a growth in the number of nurses employed within the non-traditional practice setting of the pharmaceutical/biotech industry. It has been noted in the literature that nurses are drawn to and retained in work environments incorporating valued characteristics. The presence or absence of supportive attributes within the work environment of the pharmaceutical/biotech industry has previously been undocumented as are any congruence of attributes within the non-traditional practice setting of the pharmaceutical/biotech industry to those deemed essential within traditional practice settings.

This study examined narratives told by the participants about restoring, supporting, and fostering nursing professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry. Through the grounded theory method, a basic social process of decision-making from the perspectives of nurses within the pharmaceutical/biotech industry was revealed. The process of Immigrating in Nursing is a four phase process that involves: Becoming Disillusioned, Acclimating to the Corporate Role, Achieving Belonging, and Nursing Specialty Actualization. Immigrating in Nursing emerged as the core variable. All participants purposefully engaged in a decision-making process to establish their specialty professional practice
within the pharmaceutical/biotech industry. The decisions of the participants addressed their main concern to restore, support, and foster their professional practice within the non-traditional practice setting of the pharmaceutical/biotech industry.

The study findings illuminate the challenges, milestones, and achievements that nurses within the pharmaceutical/biotech industry consider integral to their professional development and specialty actualization. The inside views of the choices and actions made by each participant in this study demonstrated many of the reasons why nurses within the pharmaceutical/biotech industry value their professional practice and the public health advancement and advocacy that they undertake.

A. Strengths and Limitations

A strength of this study is that the findings are grounded in the data of the narratives told by nurses who professionally practice in the non-traditional practice setting of the pharmaceutical/biotech industry. The perspectives of nurses who practice in the non-traditional practice setting of the pharmaceutical/biotech industry have not previously been documented in the literature. Because the nurses within this non-traditional practice setting execute and safeguard complex clinical research for the development of pharmaceutical and biotech products, their decisions and actions directly influence the lives of clinical trial participants as well as the lives of every future patient or consumer of the eventually licensed drug, vaccine, blood product, or other therapeutic agent. It is important to consider the perspectives of nurses who undertake this public health charge.
Another strength of this study is the range of nurse participant roles and experience from the pharmaceutical/biotech industry that the participants reported. The participants described having experience in the pharmaceutical/biotech industry ranging from five to twenty-two years with experience in nursing practice ranging from nine to thirty-nine years. The process that emerged was grounded in data that represented a wide variety of nursing practice experience.

A limitation of this study is that although the strategy for recruitment was designed to attract a wide variety of participants across demographic backgrounds, most of the sample was Caucasian, married, and educated at the baccalaureate level or higher. While participants were required to meet eligibility criteria for the study, a broader demographic sample may have further informed the study. The study was also limited to a geographic region therefore the effects of any regional factors impacting participants’ decision-making within the pharmaceutical/biotech industry is not known. Expanding the geographic reach of the study may serve to further inform the theory.

**B. Implications for Knowledge Generation and Practice**

The findings of this study have implications for the generation of knowledge about immigration across specialties within nursing practice. The study findings regarding the decision-making process that precipitated each participant’s entry into the non-traditional practice setting of the pharmaceutical/biotech industry as well as the continued decision-making upon entering the industry associated with the milestones of each phase may be useful to administrators and recruiters within both traditional and non-traditional nursing practice settings. The study brought attention to the triggers for
Immigration in Nursing. This information has implications for retention efforts and the associated potential impact on retention rates.

The findings also convey the considerable knowledge gap that nurse participants encountered upon entry into the non-traditional practice setting of the pharmaceutical/biologic industry. This information may be a starting point for educators within nursing education programs toward development of continuing education courses and professional development curricula as non-traditional nursing specialty scope and practice guidelines are delineated. State Boards of Nursing licensing bodies may also be impacted as they work to continually update the licensure renewal requirements related to definition of approved or acceptable continuing professional education topical areas.

Implications for the discipline of nursing include the need for expanded and revised definitions of nursing practice and the settings in which practice may take place to more fully address the expanse of nurse practice settings both traditional and non-traditional. This acknowledgement and validation of nursing practice within non-traditional practice settings may also serve to facilitate immigration in nursing as opposed to exiting professional practice settings entirely.

C. Recommendations

Based on the findings of this study, further research is recommended on the decision-making process of nurses considering Immigration in Nursing as well as those nurses continuing to engage in Immigration in Nursing. Additional inquiry using classic Grounded Theory is recommended to facilitate further expansion and
modification of the theory. In future studies, the recruitment strategy may benefit by expanding the geographic reach and by purposively sampling for greater representation of additional demographic groups to further inform additional aspects of decision-making related to non-traditional practice settings that could lend important modifications to the properties of the theory of Immigrating in Nursing. Research testing the decision-making of nurses who enter other non-traditional practice settings than the pharmaceutical/biotech industry would assist in assessing whether this is a common decision-making process of nurses establishing and fostering their professional practice in any non-traditional practice setting. The discovery of a decision-making process common to all non-traditional practice setting immigration would facilitate efforts to develop expanded evidence-based nursing specialty practice definitions and curricula.

The goal of the substantive theory of Immigrating in Nursing is that it serves as a starting point from which further research will be stimulated to continue to refine and expand the theory toward development of a formal theory.

D. Summary

Contemporary nursing practice definitions have been in existence both through formal language and informal portrayals or depictions for decades. Despite the long history, evolution of these definitions has been slow to incorporate the changing practice context of nursing. Traditional nursing practice definitions reflecting traditional practice settings are narrow causing omission and invalidation of entire specialty areas of nursing. The pharmaceutical/biotech industry is one example that is not addressed. The experiences of participants in this study confirm this status by
illuminating that within their practice, the lack of acceptance and acknowledgement by the discipline remains an obstacle for these nurses attempting to resolve their main concern of establishing, supporting, and fostering their professional practice within the pharmaceutical/biotech industry. The nurses engaged in resolving their main concern by completing the process of Immigrating in Nursing. Through this process participants achieved nursing specialty actualization. The descriptions of the decisions and actions participants undertook while immigrating in nursing into the non-traditional practice setting of the pharmaceutical/biotech industry reflected the importance they equated to their industry practice roles toward the advancement of public health.

The speed of continual innovation and change within healthcare has resulted in an evolution of practice settings that reaches beyond traditional setting boundaries. This evolution of nursing practice settings has served to outpace reciprocal evolution and expansion of nursing practice definitions. The absence of such evolved nursing practice definitions leads nurses practicing within the pharmaceutical/biotech industry to maintain and foster invisible professional practice.

Nurses need to be able to approach their specialty selection and career decision-making fully informed of the available options as opposed to forced within narrow boundaries. Nurses need the tools and information to exert effective practice establishment pursuit.

“The dynamic nature of the healthcare practice environment and the growing body of nursing research provide both the impetus and the opportunity for nursing to ensure competent nursing practice in all settings for all healthcare consumers and to
promote ongoing professional development that enhances the quality of nursing practice” (ANA, 2010, p. 29).
REFERENCES


Encarta Dictionary online (2011).


Appendices
Appendix A –

Interview Guide

The following constitutes the preliminary interview guide:

1. Corroboration of Demographic Data
   - (Review demographic information)/Is there anything else that you think is important for me to know?

2. Initiation of the Interview- Commencement of audio-recording.

3. Nurse professional practice support in the pharmaceutical/biotech industry

   Global Question:
   - Tell me why you decided to be a nurse in the pharmaceutical/biotech industry.

4. Probes

   - What is the nature of your job within the pharmaceutical/biotech industry?
   - What is it about your job that contributes to your satisfaction and is supportive of your professional practice?
   - What factors are necessary for your job satisfaction and to support you in your work?
   - In what way is your job different because of your employment setting?
   - How do you feel about working in this environment?
   - Can you tell me any concerns and challenges that you have faced in this setting?
   - Tell me how this type of practice compares with your practice experience in past settings.
   - What would you see as ideal support for your professional practice?

5. Ending the Interview

   - “Is there anything that you feel is supportive of your professional practice within the pharmaceutical/biotech industry that I have not asked that you think is important?”
   - “Is there anything else that I did not cover that you would like to tell me?”
Summarize the main points or themes and clarify with the participant. Clarify all unclear statements.
Appendix B: Invitation to Participate

INVITATION TO PARTICIPATE

Dear _______________,
I am a doctoral candidate in the School of Nursing at Rutgers, The State University of New Jersey. The factors that support the professional practice of nurses within the pharmaceutical /biotech industry are not addressed in the literature and additional information is needed to better characterize and understand the experiences of industry nurses. I believe that by learning more about this non-traditional practice area from the perspectives of nurses within the pharmaceutical and biotech industry, I will be able to make a valuable contribution to the nursing knowledge base by increasing awareness within the discipline and contributing toward education and practice models. Thus, I would like to invite you, as a registered nurse within the pharmaceutical/biotech industry, to participate in a research study exploring the aspects that nurses within the pharmaceutical and biotech industry characterize as supportive of their professional practice.

Your participation will include being interviewed by me at a time and location that is convenient for you. This interview will take approximately one hour of your time. You will be paid twenty dollars at the initiation of the interview.

I appreciate your consideration of my request to participate in this study. All information shared will be confidential. Your participation will help me gain information about how nurses within the non-traditional practice environment of the pharmaceutical and biotech industry perceive support for their professional practice. This information is important because it may facilitate improvements in nursing educational programs as well as shed light on less known nursing practice areas within industry. If you are interested in participating, please contact: Ellen Shannon, RN, Doctoral student, College of Nursing, Rutgers, The State University of New Jersey, at: ELLENSHANNON@comcast.net or (443) 486-2445. I will contact you by phone within one week to see if you have any questions and if you are willing to participate. Your participation is strictly voluntary. Thank you for considering my request.
Sincerely,

Ellen Shannon RN, MS
PhD candidate
Rutgers, The State University of New Jersey
Appendix C: Consent to participate in a research study

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

HOW DO NURSES WITHIN THE PHARMACEUTICAL AND BIOTECH INDUSTRY PERCEIVE SUPPORT FOR THEIR PROFESSIONAL PRACTICE?

INTRODUCTION

As a nurse working in the United States in the pharmaceutical or biotech industry, you are invited to participate in a study that examines how nurses within the non-traditional practice environment of the pharmaceutical/biotech industry perceive support for their professional practice. This study will be conducted by Ellen Shannon, RN, MS, a doctoral candidate in the College of Nursing, at Rutgers, The State University of New Jersey. You do not have to participate in this research study. It is important that before you make a decision to participate, you read the rest of this form. You should ask as many questions as needed to understand what will happen to you if you participate in this study.

PURPOSE

The purpose of this study is to obtain information about how nurses within the pharmaceutical and biotech industry perceive support for their professional practice from the perspective of nurses within this specialty area.

PROCEDURE

You are being invited to participate in an interview. The interview will include questions about your perspectives regarding what elements within the non-traditional practice environment of the pharmaceutical/biotech industry are supportive of nursing professional practice. The investigator is interested in your experiences, perspective, and opinions. You are free to quit the interview or refuse to answer any question at any time.

The interview will be held at a location and time that is convenient for you. The interview is expected to last approximately 60 minutes. Interviews will be tape recorded and transcribed. The tape recordings and information in the study record will
be kept strictly confidential. Data will be stored securely in a locked cabinet and/or restricted access computer and will be made available only to Ellen Shannon, her research supervisors, and the Institutional Review Board until the completion of the study in May 2011. Ms. Shannon will take notes during the interview and may request at a later date to do a follow-up interview if clarification or more information is needed. You are under no obligation to participate in any additional interviews. Your participation remains completely voluntary. You will be paid $20.00 for each interview.

**RISKS**

There are no known risks for participating in this study.

**BENEFITS**

There are no direct benefits to you for participating in this study. It is hoped the additional information gained in this research study may be useful in improving nursing education programs and practice models.

**COSTS**

There are no costs to participate in this study. Indirect cost involves approximately 60 minutes of your time for the interview.

**PAYMENT TO SUBJECTS**

You will be paid $20.00 for each interview while participating in this study.

**CONFIDENTIALITY**

This research is confidential. Your name will not be recorded on your interview. The investigator will assign a number to identify your interview. The research records will include some information about you including your age, ethnicity, marital status, number of years in nursing, education, and certification(s). Your name
will not be kept on the information. All information will be locked in a file cabinet accessible only to Ellen Shannon, her research committee, and the Institutional Review Board at Rutgers University. The investigator will need to let the research review team look at the transcription and notes from your interview. Information that identifies you will not appear on any publication or presentation resulting from this study.

**QUESTIONS**

If you have any questions about this study you may contact Ellen Shannon at: ELENShannon@comcast.net or (443) 486-2445. If you have any questions about your rights as a research subject, you may call (732) 932-0150 ext. 2104 or contact the Human Subjects Committee at: Rutgers University Institutional Review Board for the Protection of Human Subjects Office of Research and Sponsored Programs 3 Rutgers Plaza New Brunswick, NJ 08901-8559 Email: humansubjects@orsp.rutgers.edu

**SUBJECT RIGHTS AND WITHDRAWAL FROM THE STUDY**

You understand that your participation in this study is voluntary and that the choice not to participate or to quit at any time can be made without penalty. You may quit or refuse to answer any questions at any time.

Subject Initials _________

**CONSENT**

The purpose, procedures, and risk of this research have been explained to me. I freely and voluntarily consent to participate in this research study. I understand that my identity will remain confidential. I have read and understand the information in this
form and have had an opportunity to ask questions and have been answered to my
satisfaction. I understand that the interview will be audio-recorded, transcribed, and
that all transcriptions and recordings will be destroyed after the completion of the study
according to institutional review board policies. I will be given a signed copy of the
consent form to keep for my records.

______________________________________________
PRINTED NAME OF SUBJECT

______________________________________________
SIGNATURE OF SUBJECT       DATE

______________________________________________
PRINTED NAME OF PERSON OBTAINING CONSENT

______________________________________________
SIGNATURE OF PERSON OBTAINING CONSENT       DATE

Subject's Initials_____
Appendix D: Demographic Questionnaire

**Demographic Questions**

1. Age __

2. Gender      M___  F___

3. Marital Status S___ D___ W___ M___

4. Ethnic Group _______________________

5. Race _____________________________

6. Number of years in nursing ____________

7. Number of years employed in the pharmaceutical or biotech industry ____________

8. Position titles held in this area:
   ____________________________________

9. Nursing work settings in which you have been employed or had experience in:
   a. _______________________________ How long? __________
      PT/FT_______
   b. _______________________________ How long? __________
      PT/FT_______
   c. _______________________________ How long? __________
      PT/FT_______
   d. _______________________________ How long? __________
      PT/FT_______
   e. _______________________________ How long? __________
      PT/FT_______
   f. _______________________________ How long? __________
      PT/FT_______
   g. _______________________________ How long? __________
      PT/FT_______
   h. _______________________________ How long? __________
      PT/FT_______

10. Educational Background/ Degrees:
    ____________________________________
11. Certifications/Professional development:
### Appendix E: Table 1

#### Table 1: Participant Age, Gender, Nursing Practice Years, & Non-Traditional Years within Industry

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The first participant is a 44 year old female. She contacted the researcher in-person to participate in the study. She admitted that she loved “giving back” to nursing and “contributing toward the advancement of nursing knowledge.” She had spent twelve of her twenty years as a nurse practicing within the pharmaceutical/biotech industry. She conveyed during the interview that she had not ever taken time to question her value to the organization or the support that she had received in her previous traditional practice settings since nurses were treated in an expected way that she had experienced since nursing school. It was not until she joined industry and a non-traditional practice setting that she noticed being valued and supported to maintain her nursing credentials and nursing philosophy and approach. She discussed being rewarded and feeling proud of her contribution in this setting whereas in the traditional settings she had come from, she had grown to be fearful of not being able to put forth adequate quality care due to the overwhelming job demands and patient to nurse ratios. She described feeling as though the contributions of nursing were not valued within the traditional nursing settings except in relation to quantity not quality. She talked about the ways that she is able to “Take care of people” and “look out for their welfare”. She also mentioned that she has been told that she is no longer a nurse anymore by family due to her entry into industry away from traditional settings.

The second participant is a 48 year old female. She has spent all of her professional nursing career, 17 years, within the pharmaceutical/biotech industry. She discussed the characteristics of “Being a nurse” that she brought with her every day to her job despite never having worked in a traditional practice setting. She described
never questioning the activities that she performs as nursing in nature and shared that nursing school gave her the foundation but she recognized her responsibility to continually build on that foundation on a daily basis. She likened her decision-making process as an example of what her nursing education had provided her that she contributed everyday to her global case load to make a difference.

The third participant is a 50 year old female. She had joined industry six years ago after spending 24 years in traditional practice settings. She holds a Bachelors degree and has pursued numerous industry related professional development courses. She described having entered the industry on an accidental basis since she was not actively looking to change jobs at the time that she became aware of the job opening. She admitted that she focused on patient safety and ethics on a daily basis and ensured that company processes upheld those standards in all aspects of research and development. She believed that part of her unique contribution as a nurse to the industry was her ability to communicate and her adept interpersonal skills which she felt were a commonality among nurses in the industry.

The fourth participant is a 51 year old female. She had joined industry 13 years ago after spending 17 years in traditional practice settings. She had pursued her Master’s degree after joining industry and described support for her professional practice within this non-traditional setting as one of the reasons that she had pursued an advanced degree. She discussed the focus of the nurse within industry as not just on a single patient or a patient assignment but on the present and future global patient populations that the new product would impact. She shared that she has two best friends that are nurses and that one has continued for her entire nursing career in the
traditional hospital setting as a staff nurse while the second has pursued and obtained a master’s degree and now does clinical education and unit-based research studies within a hospital setting. She further explained that she has experienced comments suggesting that she has defected from nursing from her staff nurse best friend while her clinical educator friend is inquisitive and accepting of her practice area.

The fifth participant is a 42 year old female. She joined industry nine years ago after working in traditional settings for six years. She is currently a PhD candidate and had pursued both her Masters and Doctoral degrees after joining industry. She discussed the level of respect and collegial relationships that she experienced on a daily basis from physician and PharmD colleagues. She mentioned that they often come to her asking product related questions in association with pregnancy as they know her background is maternal-child nursing.

The sixth participant is a 60 year old female. She joined industry 12 years ago after working in traditional public health settings for 27 years. She holds a Masters Degree as a Family Nurse Practitioner that she possessed prior to entering industry. She shared at length about her satisfaction in collaborating with nurses and physicians in current practice as well as with non-profit health-oriented associations. She noted that she gains great satisfaction from developing credible medical education resources for use with patient populations based upon the needs of the healthcare community. She stated that her role as a nurse within industry is to facilitate health promotion through educational resource development that can be meaningful for both the lay public and healthcare providers. She noted that she has met with much curiosity from nurse peers within these groups related to her role within industry. She mentioned that on occasion
she has encountered skepticism or suspicion from nurse peers assuming her motives to provide materials are to sell product. She stated that these perceptions are dispelled once she develops a relationship with these providers and demonstrates that no link exists with any product ordering or selling.

The seventh participant is a 35 year old male. He joined industry nine years ago after working in traditional settings for six years. He also holds a Masters Degree which he pursued and completed while in industry. He described the steps that he went through in entering industry and progressing to his current position. He noted comparisons with other industry companies and transition challenges that he encountered at each juncture. He described the learning curve and some of the lessons learned as he gained experience within the industry. He acknowledged that he still practices as a nursing supervisor per diem at a local hospital in addition to his full-time employment within industry and feels that his continued involvement within both arenas allows him the confidence of long-term job security in the face of industry downsizing found in the corporate world.

The eighth participant is a 47 year old male. He joined industry 19 years ago after spending six years working in traditional settings. He shared that he obtained both his Bachelors and Masters Degrees since he had entered industry. He affirmed that his experience within industry, while initially intended as a “break” from traditional hospital nursing as a nurse manager soon became a string of successive promotions and a strong feeling of being valued by the industry. He explained that coupled with this respect demonstrated by the company, he experienced increasing self-worth and motivation to pursue and obtain both his Bachelors and Masters Degrees. He noted that
through the course of his progressive career development and positions held, he has always emphasized seeking out and hiring additional nurses because of the skill-set commonality. He further described that the decision-making process of nurses is crucial within the industry in addition to the scientific knowledge base and understanding of the patient perspective.

The ninth participant is a 28 year old female. She joined industry five years ago after spending four years in traditional settings. She described how she had initially obtained a diploma in nursing and then went on for her RN to BSN prior to entering the industry. She noted that both curriculums included nothing about pharmaceutical career options for nurses. She shared that even in her RN to BSN program, career planning regarding different nurse roles was focused on traditional nursing management or education. She noted that she has never regretted any of her career moves and is proud to be a registered nurse. She gave examples of company support and peer industry nurse support and a “special bond” that she perceived among industry nurses.

The tenth participant is a 44 year old male. He joined industry five years ago after spending 16 years in traditional settings. He holds a Bachelors degree and has also pursued and obtained his certification as a Clinical Research Professional since joining the industry. He discussed negative traditional practice setting experiences that caused him to search for new practice settings. He acknowledged that industry has not come without separate challenges however the main concerns he had in professional nursing within traditional settings were not present within industry. He described the industry as different by design.
The eleventh participant is a 48 year old female. She joined industry five years ago after spending 25 years in traditional settings. She holds a Masters degree and is currently pursuing a project management certificate. She had experienced traditional settings within clinical practice, academia, and research and had encountered differing definitions of professional practice. She acknowledged that professional practice in nursing encompassed a primary skill-set that was operationalized according to setting focus.

The twelfth participant is a 55 year old female. She joined industry twelve years ago after spending 23 years in traditional settings. She holds a Bachelors degree and has pursued and obtained numerous industry specific certifications since joining industry including active certification in Regulatory Affairs. She conveyed experiencing varied levels of support for her professional practice dependent on the roles that she has held within traditional and industry settings. She noted that she has also experienced a wide array of roles including being the first nurse in several of the roles. She noted that in each department, the initial support has often been tenuous until the contribution that she was able to offer was demonstrated and then support has escalated. She proudly noted that each department has hired subsequent nurses or additional nurses since her initiation with them.

The thirteenth participant is a 55 year old female. She joined industry 10 years ago after spending 18 years in traditional settings. She holds a Bachelors degree. She discussed her experiences and roles since joining the industry including working within a “difficult” department. She has persevered within the department and described a story of triumph regarding the level of support and her feeling that the department
depends on her as an essential team member now. She described elements of her nursing skill-set that have transcended practice setting whether traditional or non-traditional as in the case of the pharmaceutical or biological industry. She expressed pride in her accomplishments, expanded knowledge base, contributions to global health, and in being a registered nurse.

The fourteenth participant is a 59 year old female. She joined industry 22 years ago after spending 17 years in traditional settings. She holds an Associates degree and has pursued numerous business and management related courses since joining industry. She described being one of the very first nurses hired by the company and how she now runs a department of strictly nurses. She conveyed feeling pride and satisfaction from her career and the products that she has somehow contributed toward whether in development, licensing, distribution, or ongoing safety monitoring. She noted that she hires only nurses due to liability concerns regarding the background and scope of practice of other degrees and has continued to enjoy success and growth throughout the 22 years that she has been with the company. She described having hired both new graduates as well as seasoned nurses within her department and having witnessed similar learning curves due to the novelty and unfamiliarity of the industry to nurse job candidates. She also noted that it is her experience that once a nurse enters industry, they are retained for long intervals, often ending with retirement.

The fifteenth participant is a 55 year old female. She joined industry 15 years ago after spending 19 years in traditional settings. She holds a PhD and is currently enrolled in an Adult Health Nurse Practitioner program. She discussed her transition from traditional settings into industry and how she feared “Leaving Nursing”. She described
being at a clinical trial site after six months within the industry when she abruptly
realized that she was still practicing professionally as she made decisions regarding the
design of a trial and considered how these decisions would impact, improve, and
advance patient care. She noted that it mattered very specifically about the quality of the
design and management of the clinical trial or the results would not be usable and the
patient care advances would never come to fruition. She took that responsibility very
seriously.
Appendix G: Figure 1: Immigrating in Nursing

Precursor to Model

- Enters Nursing
- Becoming Disillusioned

Acclimating into the Corporate Role

- Perpetual Defense
- Achieving Belonging

Nursing Specialty Actualization

Time
Appendix H: Figure 2: Phase 1: Becoming Disillusioned

- **Dealing with Setting Changes**
  - Deteriorating professional mission
  - Enduring system transformation

- **Experiencing Discomfort in their Role**
  - Evolution of role and responsibilities
  - Negative Perception of Transformation
  - Disillusioned with previous setting

- **Exploring Options**
  - Seeking change
    - Serendipitous
    - Searching listings
    - Networking with colleagues
**Appendix I: Figure 3: Phase 2: Acclimating into the Corporate Role**

<table>
<thead>
<tr>
<th>Acclimating into the Corporate Role</th>
<th>Perpetual Defense</th>
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<tbody>
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<td>Filtering through the Nursing Lens</td>
<td></td>
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</table>
  - Redefining Purpose
  - Reframing of skills to new job
  - Translating Role Responsibilities
  - Redefining Professional Practice

| Integrating within the setting |
  - Understanding Corporate Culture
  - Redefinition of Professional Accountability

| Developing through Immersion |
  - Learning Curve for terminology in Industry (New Regulations, Language, Acronyms)
  - Attaining Level of Competence
  - Competence & Confidence in performance in industry
  - Independent functioning

| Perpetual Defense |
  - Societal & Discipline Perceptions
    - Non traditional setting
    - Stigma that Pharma is “Evil & Not to be trusted”
    - No recognition of non-traditional role in Nursing school or on NCLEX
    - Denial that nursing persists in non-traditional setting
  - Experiencing Loss of Nurse Identity
    - Negativity of contacts
    - Nostalgia for known role
    - Concern about loss of traditional nursing technical skills |
Appendix J: Figure 4: Phase 3: Achieving Belonging

Perpetual Defense

Achieving Belonging

Recognition of Organizational Acceptance
- Validated through annual appraisal
- Selection for special “flagship projects”
- Selected to precept
- “Insider” status

Recognition of Self Achievement
- Serving as role model/preceptor
- Ethical advocating
- Pride in Professional Skill-set
- Attaining Proficiency

Recognition of Nursing Value within Industry
- Supporting RN Credentials
  - CEU reimbursement
  - License reimbursement
- RN Unique Contribution
  - RN Attributes
    - Knowledge of Medical setting
    - Drugs
    - Disease process
    - Technical skills used in clinical trials
    - Ethics
    - Patient / consumer perspective
- RN only roles in Pharma (MIS, PV)
- RN preferential hiring (CRA, QA)
  - Job retention and increased recruitment
Appendix K: Figure 5: Phase 4: Nursing Specialty Actualization

Evolution to Expert
- Sought out for expertise in specialty
- Planning for future
- Next steps
- Advancement of public health
- Professional development for self & industry

Satisfaction through Altruism
- Being part of a bigger picture
- Altruistic service to global community
  - Greater good for mankind
- Validation of reason to enter Nursing
Appendix L: Representative Memos

Memo: Post interview participant #3
Date: December 17, 2010

Subject #3- New questions-
   “Why do you make the changes that you do in trials?”
   “What would happen if you did not make the changes?”
   “Do you have a duty to make the changes?”
   “How did you assume this duty?”
Memo: Evolving questions- Theoretical sampling-

12/22/10-

Following some of the concepts within the interview data thus far:

- Is the thought of the traditional setting reality enough of a deterrent to weigh heavily on the participants staying in industry

-OR-

- Are the potential risks to subjects too great to leave or abandon them?
Memo: Thoughts post interview participant #7
Date: 12/23/10

Subject #7 = living your job through all the time – Carrying through the nursing mission
Memo: Thoughts Post –interview participant #8
Date: 12/28/10

#8- How are nurses being supported? Or are they not being supported? What level of support whether perceptible or imperceptible is acceptable enough to keep these nurses within this industry? Is the thought of the traditional setting reality enough of a deterrent to weigh heavily on them staying? Is the investment that the industry has shown through offering OJT evidence enough of support? Are the ongoing challenges and the confidence that the industry has placed in the individual by offering them this progressive responsibility enough to sustain one’s job satisfaction and professional practice?

“Are you happy to be here?”
“Why are you happy to be here?”
“Are you successful here?”
“How do you know if you are successful here; valued here?”
“Do you feel valued here?”
Memo: Not the core category-

12/29/10-

Participants are not concerned over how they are supported within the industry but on how they have seemingly been “cast out” or abandoned by the discipline and thereby not supported by the professional community through which they define their existence. They are motivated to continue on and finding support to redefine their practice in spite of this reality.
Memo: Core Category

1/4/11-

Narrowing down the core category:

Guarding in Silence

Unseen Nursing

Carrying On/through the patient mission

Properties of the core category:

Redefining professional practice

Abandonment by traditional discipline/identity-less

Commitment to quality

Duty to protect

Fear/concern over potential risks

Covering the patients/masses
Memo: Core Category-

1/25/11

Have identified the core as Carrying through since it more thoroughly represents the process that participants have navigated in solving their perceptions of support for their professional practice in the pharma/biotech industry.

After today’s interviews, I am confident that I have reached saturation as no new concepts were identified and previous concepts were repeated. Still have another interview scheduled for confirmation.

Organizing the core category into two phases with properties:

Carrying through

Re-purposing-

- Integration within new setting
- Personal Acceptance
- Redefining of professional practice
- Conflicted struggle with discipline reaction
- Delayed satisfaction/ global contributions

Compelled to serve-

- Duty to protect
- Upholding the quality/integrity
- Continuing to cover
Memo: Thoughts - Post interview participant #11
Date: 1/26/11

Subject#11-
- Credibility of introducing self as a nurse - conflict – “NOT A NURSE ANYMORE”
- mixed messages from internal industry contacts versus external contacts versus personal knowledge of role
- acute reactions initially that later subside in response to similar stimulus - never completely removed
Memo: Thoughts post interview- participant #15
Date: 2/25/11

#15- confirmation of theoretical coding- greater clarity regarding property attributes
  - struggle/conflict from invalidation or lack of acknowledgement by discipline while carrying on the patient mission unseen

  “Carrying on the patient mission”
  - personal redefining of nursing practice- in a non-traditional setting/unacknowledged setting- closed/limited access setting
  - personal acceptance of discipline abandonment
  - forging on- commitment to follow through the advocacy for the patient perspective in every aspect of product development

  “Shepherding through the patient mission”
Memo:  Codes and constant comparative analysis
Date:  2/26/11

Have delineated 156 first level codes through open coding with all interviews transcribed and coded. I have collapsed codes based upon their similar/interchangeable definitions and have arrived at 52 second level theoretical codes.

Have taken these codes and sorted them into categories/properties.
-working on further clarifying and determining the organization and linkages.
Memo: My misunderstanding
Date: 2/28/11

Participants harbor concern not over how they are supported within industry but on how they have seemingly been “cast out” or abandoned by the discipline and thereby not supported by the professional community through which they define their existence. They view this lack of acknowledgement as an added hurdle within their quest to restore, support, and foster their nursing professional practice within this non-traditional setting.
Memo: Thoughts on BSP
Date: 3/1/11

Carrying Through

1. Repurposing
   A. Redefining professional Practice
   B. Grieving Abandonment from the Discipline
   C. Re-calibrating & Integrating within the setting
   D. Personal Resolution & Acceptance

1. Dutifully Serving
   A. Upholding the Integrity
   B. Persevering
Memo: Persevering
Date: 3/3/11

There are elements of the process that continue throughout the tenure of the participant. Participants do describe incremental steps as well but there are ongoing challenges, i.e.- taking the good and the bad, accepting the negatives and the positives with the decision to enter and practice within the industry. Will plan to re-look at the length of each phase and property as well as specific characteristics.
Memo: Theoretical sorting
Date: 3/15/11

Have returned to my data to theoretically sort to further define and strengthen the phases and the properties per Dr. Lev’s comments and discussion. Am remaining open to the possibility that the core category has not been isolated.
Memo: Theoretical Sorting

Date: 3/16/11

-Am finding that the phases previously identified were not fully developed and thus not fully reflective of “What is going on” during the process that participants have undergone to resolve their main concern of establishing, supporting, and fostering their professional practice within this setting.

-Have begun to follow the codes more closely to link the transitions of where and when they exist for participants and where they become more or less important.

-Determining the linkages helps to construct the decision-making and behaviors of the participants during their journeys and to better explain the trajectory they appeared to follow.

Ex. Participants are doing more than redefining their professional practice upon entry into industry and this needs to be further described….Filtering all of the stimuli and responsibilities to reflect their nursing viewpoint.

-There are also other tasks that the participants are focused on accomplishing within their process: professionally developing in order to achieve role expectations (they need to get up to speed in their command of the new language, regulations, etc.); adapting to the corporate environment/etiquette/accountability.

-Also determining the “What happens next” of the process.
Memo: Drafting the order of the process and phases
Date: 3/19/11

Draft order of Core Category and phases

Assimilating
- Corporate Acclimation
- Achievement of Belonging
- Achievement of Specialization

Properties

Corporate Acclimation-
- Filtering the Nursing Perspective through /redefining purpose
- Integrating within the setting
- Professionally developing
- Continually defending non-traditional practice/(Grieving Abandonment from the discipline)

Achievement of Belonging-
- Organizational Acceptance
- Self validation
- Industry Nurturing Nurses

Achievement of Specialization-
- Betterment of Mankind
- Content Expert
Memo: Thoughts on the Actualization of one’s Nursing Specialty
Date: 3/20/11

Phenomena that have emerged from the data- participants regard their practice area as a specialty. They note the learning curve and the process they endured to attain their current levels of expertise within their roles. They acknowledged their decreasing levels of comfort in being considered interchangeable with other clinical specialty examples.

Further thoughts to consider:

1. Everyone has a specialization- not necessarily ER – How comfortable would each nurse be with hearing, “It’s ok, we have a nurse here,” regardless of your specialty?

2. What it is and what it is not-----Is every nurse judged equally? Are traditional setting specialties better than non-traditional specialties; Are clinical specialties better than non-clinical specialties?

3. Mutual respect from nurse colleagues when acknowledging specialty Opportunities.

4. Difficulty getting into the industry- learning the specialized knowledge/getting the experience
Memo: The impact of disillusionment on decision-making for nurses within industry

Date: 3/22/11

Phases and order of the basic social process….

I was under the impression that the scope of the main concern for participants occurs within the confines of their current employment within the industry however, there appears to be a dynamic that although having occurred prior to entry into the industry still plays on their decisions to continue on within this non-traditional setting (Disillusionment).

Disillusionment with their traditional practice environments has led these nurses to industry employment. Some participants sought a research oriented setting as their specialty choice having experienced traditional settings however for most, pharma/biotech industry nursing opportunities were unknown and accidentally discovered after general disillusionment with traditional settings.

For all participants the integration of this disillusionment and first-hand knowledge of traditional settings combined with success within the pharmaceutical/biotech industry impacts their decisions to continue to resolve their main concern within the industry.

Therefore it may be important to identify the first phase of the basic social process as disillusionment.

Participants discussed the related following codes:

- Goals of Nursing/calling/reasons that one went into nursing- taking care of people no longer being realized
- No longer fulfilling their professional mission
- Point at which “Nursing” isn’t still true to expectations in traditional settings
- Reality shock of when hard business motives sank in for nurses in traditional settings
- Nurse career transition/evolution point – when nurses decide if they can swallow/tolerate the business vs. caring emphasis
- Overwhelm Changes in nursing responsibilities
• Nostalgia for the way hospital nursing used to be
• Changes in patient criticality
• Missing patient care
• A sense of Decreased Quality
• Fear for patients/ potential bad outcomes
• Decision point- Not wanting to be a part of this traditional setting evolving reality
• Sadness/loss over leaving traditional setting
• Exiting traditional setting/ Entering industry
• Entering industry in the absence of loss of traditional setting- wanting a job/wanting a change/ not regretful- eager to apply and transfer skills
• Dealing with Setting Changes
• Nursing wasn’t nursing
• Money making business of hospital setting
• Experiencing Discomfort in their roles
• Not why I became a nurse
• Caring for people
• No quality anymore
• Scared of something bad about to happen
• stimulus for career change search
• Exploring Options
• Nursing education programs- absence of information-career opportunities.
• Word of mouth
• Not my first choice= industry
• Not much development/advancement opportunities left in traditional nursing
• Enduring system transformation

The phase seems to encompass several properties:

A. Dealing with Setting Changes
   • Enduring system transformation
   • Point at which “Nursing” isn’t still true to expectations in traditional settings
   • Nursing wasn’t nursing
   • Money making business of hospital setting
   • Changes in nursing responsibilities
   • Nostalgia for the way hospital nursing used to be
   • Changes in patient criticality
   • Missing patient care
   • Deterioration of ideal traditional nursing
• Goals of Nursing/calling/reasons that one went into nursing- taking care of people no longer being realized
• Personal definition of nursing goals differed from setting
• Lack of comfort with setting focus on profit over care
• Witnessing the setting nursing goals change negatively

B. Experiencing Discomfort in their roles
• Not why I became a nurse
• Caring for people
• No quality anymore
• Overwhelm
• A sense of Decreased Quality
• Fear for patients/ potential bad outcomes
• Scared of something bad about to happen
• stimulus for career change search
• Reality shock of when hard business motives sank in for nurses in traditional settings
• Nurse career transition/evolution point – when nurses decide if they can swallow/tolerate the business vs. caring emphasis
• Decision point- Not wanting to be a part of this traditional setting evolving reality
• Sadness/loss over leaving traditional setting
• Reason to leave traditional nursing
• No longer fulfilling their professional mission
• Overload in assignments and decreasing quality of care
• Overload in acuity of assignment
• Wishing the setting nursing goals would return to prior standards
• Longing for the return of prior nursing care standards
• Clarity that professional fulfillment is failing
• Adapting to setting changes
• Generalized loss of confidence in nursing goal alignment with traditional settings

C. Exploring Options
• Nursing education programs- complete absence of information-career opps.
• Word of mouth
• Not my first choice= industry
• Not much development/advancement opportunities left in traditional nursing
• Exiting traditional setting/ Entering industry
• Entering industry in the absence of loss of traditional setting- wanting a job/wanting a change/ not regretful- eager to apply and transfer skills
• Acknowledgement of permanence of conflicting goals
• Personal nursing definition maintained
• Resolution to lack of further potential positives
• Anxious premonitions
• Decision point to examine career options
• Clarity that professional fulfillment is absent
• Cannot rely on prior nursing socialization/education for options
• Seeking change
• Limited prior exposure to career potential
• Unacceptable career choices in traditional settings
• Serendipitous discovery
• Openness to career range of opportunities
Memo: Conversion of properties: “Grieving abandonment from the discipline” to “Perpetual Defense”

Date: 4/1/11

I had formerly felt that the property of “grieving abandonment from the discipline” was a much narrower phenomenon in which the participants were most concerned at resolving it within a smaller context. The property is being converted to “Perpetual Defense” and represents acceptance of the negatives associated with a nursing career within the pharma/biotech industry.

Participants described confrontation with this property as early as the entry point into industry. This property remained continuous and ongoing throughout their careers within industry but the context within which the participants managed this property evolved as their length of service and level of expertise increased. The level of impact of Perpetual Defense subsided over time.

Initially, participants regarded their necessary response to negative encounters as offensive and required defense of the industry and their practice role within it. This was accompanied by a negative effect on their nursing identities. At the culmination of their resolution of the BSP, when they had developed confidence and strong nursing specialty identities within the industry they no longer experienced a negative effect on their nursing identities and viewed these encounters as “Background Noise” and opportunities to educate others.

The property of perpetual defense encompassed more than negative comments regarding abandonment from the discipline, the property also represented the evident gaps and deficits that were rooted within societal and professional definitions of nursing practice and the need for increased awareness efforts within these areas regarding the expanse of nursing specialty areas.

Despite a lack of formal acknowledgement from these areas, the practice area exists and nurses do occupy these roles. The lack of awareness in general accompanied by
reliance on historical definitions appears to be associated with much of the negativity encountered.

Questions and Issues related to Perpetual Defense:

- Discipline of nursing lack of awareness of these career options/ lack of communication of these career options/discipline priorities
- Searching for your specialty niche/Trying something new- industry might fall outside of acceptable boundaries for nursing practice definitions- do other specialties also solicit similar reactions?
- Nursing education does not acknowledge all of the career options for nurses – Is this because they do not validate this as a viable career option/specialty? Is this due to lack of awareness? Is this due to overwhelming amounts of NCLEX material to cover already?
- Existence versus meeting requirements of discipline- advocating for acknowledgement- Does the discipline need enlightenment?
- Accidental discovery
- Career options-career development/professional development-Is this a viable practice setting?
- Challenges within this setting
- Scandalous historical reputation of industry
- Nursing mission within industry to be defended= i.e. finding and averting all of the quality threats to the subject/patient
- Competition mentality of business
- Knowledge gaps/hurdles to overcome with outsiders
- Not a nurse anymore
  A. Definitions/Expectations/socially accepted/bought into
  B. Discipline view that anyone can do this- not relevant to nursing
  C. Absence of discipline acknowledgement diminishes self value/nurse identity
  D. Is every nurse still a nurse?
Memo: Meanings/definitions
Date: 4/4/11

Have been working with the meanings of the participants to determine the correct wording for increasing clarity of the phases and properties.

Examining the exact definitions of these terms to appropriately reflect the process of the participants.
Memo: Core Category/BSP- What it is/What it is NOT……

Date: April 12, 2011

I converted the BSP from Carrying Through to Assimilating but am struggling with the meaning of this new term and if it truly captures the process for participants. I will plan some member checks to further examine this.

Basic Social Process- “Assimilating”

- defined as: “to integrate somebody into a larger group so that differences are minimized or eliminated”

(Precursor)Decision to enter industry=

1. Leaving traditional setting -

Phases = Disillusionment
          Corporate Acclimation
          Achieving Belonging
          Nursing Specialty Achievement

Will continue to refine properties of each phase but will include this as an area to revisit with participants.
Memo: Properties of Phases
Date: April 13, 2011

Am further examining the properties of the phases thus far. Will review these aspects with participants during member checks next week.

Selective Disillusionment

Corporate Acclimation:

Re-defining purpose vs. filtering through the nursing lens

Integrating within the setting

Immersion/ Ongoing Development = Early as opposed to later in industry career?

Perpetual Defense =

1. Social perceptions- society and profession/discipline
2. Nursing identity loss

Achieving Belonging:

Recognizing acceptance, self-achievement, the value of nurses

Nursing Specialty Optimization/Actualization =

1. Arrival at expertise
2. Greater Good- Satisfaction
Memo: Basic Social Process- Immigrating in Nursing
Date: April 20, 2011

Have conducted two separate member check interviews and asked if “Assimilation” was an accurate term for what the participants had been through during their years in the pharmaceutical/biotech industry. Both participants described limitations to the term assimilation that they felt did not adequately depict their experiences. Also reviewed the model and received validation for the properties as well as additional input.

Have arrived at “Immigrating in Nursing” as the most central and recurring BSP explaining the core of how participants solve their main concern: to preserve their traditional practice purpose while reframing their professional practice skills within a novel non-traditional practice setting.

Through this process, participants were focused on restoring, supporting, and fostering their nursing professional practice.
The Basic Social Process of “Immigrating In Nursing” is the “CORE”. This BSP is central, recurring, modifiable, relevant, and works. Immigrating in Nursing resolves the main concern for participants. Beyond the insecurity and concern that I possessed previously, I have received affirmation and validation from continuing to revisit the data and to conduct member checks. The review of my model during the final member check resulted in agreement and excitement from the participant.
Appendix M

RUTGERS UNIVERSITY
Office of Research and Sponsored Programs
ASB III, 3 Rutgers Plaza, Cook Campus
New Brunswick, NJ 08901

December 3, 2010

Ellen Shannon
1817 Bond Rd
Pakton MD 21120

Dear Ellen Shannon:

Notice of Exemption from IRB Review

Protocol Title: ""How Do Nurses Within the Pharmaceutical/Biotech Industry Perceive Support for Their Professional Practice?"

The project identified above has been approved for exemption under one of the six categories noted in 45 CFR 46, and as noted below:

Exemption Date: 11/19/2010 Exempt Category: 2

This exemption is based on the following assumptions:

* This Approval - The research will be conducted according to the most recent version of the protocol that was submitted.
* Reporting – ORSP must be immediately informed of any injuries to subjects that occur and/or problems that arise, in the course of your research;
* Modifications – Any proposed changes MUST be submitted to the IRB as an amendment for review and approval prior to implementation;
* Consent Form(s) – Each person who signs a consent document will be given a copy of that document, if you are using such documents in your research. The Principal Investigator must retain all signed documents for at least three years after the conclusion of the research;

Additional Notes: None

Failure to comply with these conditions will result in withdrawal of this approval.

The Federalwide Assurance (FWA) number for Rutgers University IRB is FWA00003913; this number may be requested on funding applications or by collaborators.

Sincerely yours,

Sheryl Goldberg
Director of Office of Research and Sponsored Programs
gibel@grants.rutgers.edu

cc: Elise L. Lev
Appendix N

RUTGERS UNIVERSITY
Office of Research and Sponsored Programs
ASB III, 3 Rutgers Plaza, Cook Campus
New Brunswick, NJ 08901

July 28, 2011

P.I. Name: Shannon
Protocol #: E11-260

Ellen Shannon
1817 Bond Rd
Parkton MD 21120

Dear Ellen Shannon:

Notice of Exemption from IRB Review

Protocol Title: “Immigrating in Nursing: A Grounded Theory of How RN's Process their Professional Practice Specialization within the Pharma/Biotech Industry”

The project identified above has been approved for exemption under one of the six categories noted in 45 CFR 46, and as noted below:

Amendment to Exemption Date: 7/12/2011 Exempt Category: 2

This exemption is based on the following assumptions:

• This Approval - The research will be conducted according to the most recent version of the protocol that was submitted.

• Reporting – ORSP must be immediately informed of any injuries to subjects that occur and/or problems that arise, in the course of your research;

• Modifications – Any proposed changes MUST be submitted to the IRB as an amendment for review and approval prior to implementation;

• Consent Form (s) – Each person who signs a consent document will be given a copy of that document, if you are using such documents in your research. The Principal Investigator must retain all signed documents for at least three years after the conclusion of the research;

Additional Notes: Amendment to Exemption Granted on 7/12/11 for Modification to Study Title to: "Immigrating in Nursing: A Grounded Theory of How RN's Process their Professional Practice Specialization within the Pharma/Biotech Industry" from: "How Do Nurses Within the Pharmaceutical/Biotech Industry Perceive Support for Their Professional Practice?"

Failure to comply with these conditions will result in withdrawal of this approval.

The Federalwide Assurance (FWA) number for Rutgers University IRB is FWA00003913; this number may be requested on funding applications or by collaborators.

Sincerely yours,

[Signature]

Acting for --
Sheryl Goldberg
Director of Office of Research and Sponsored Programs
gibel@grants.rutgers.edu

cc: Elise L. Lev
Immigrating in Nursing 201

Curriculum Vitae

Ellen M. Shannon
September 24, 1968
Scranton, Pennsylvania

Education
1986  Diploma – Western Wayne High School, South Canaan, PA
1990  Bachelor of Science in Nursing- East Stroudsburg University, East Stroudsburg, PA
1992  Master of Science- Nursing- University of Maryland, Baltimore, MD
2011  Doctorate in Philosophy- Nursing- Rutgers, The State University of New Jersey, Newark, NJ

Employment
1990 – 1992  Staff Nurse – Multi-Trauma Sub Acute Unit- University of Maryland Shock/Trauma, Baltimore, MD
1992 – 1993  Instructor – Department of Nursing- Northampton Area Community College, Bethlehem, PA
1992 - 2000  Staff Nurse – Medical- Surgical Float- Easton Hospital, Easton, PA
1993 – 2000  Faculty – Department of Nursing- St. Luke’s Hospital School of Nursing, Bethlehem, PA
1999 – 2000  Assistant Professor- St. Luke’s Commemorative School of Nursing at Moravian College, Bethlehem, PA
2000 – 2003  Assistant Professor- Department of Nursing- East Stroudsburg University,
               East Stroudsburg, PA
2001 – 2003  Agency Staff Nurse- American Medical Staffing- Trexlertown, PA
2003 – 2006  Manager, Clinical Quality Assurance, Sanofi Pasteur, Swiftwater, PA
2006–Present  Deputy Director, Medical Science Liaison, Sanofi Pasteur, Swiftwater, PA