

Spring 2018

A Qualitative Assessment of New Graduate Nurse Practitioners First Year of Practice

Alex Beggs RN, MSN

*University of Southern Maine, Muskie School of Public Service*Follow this and additional works at: https://digitalcommons.usm.maine.edu/muskie_capstonesPart of the [Health Policy Commons](#), [Interprofessional Education Commons](#), [Nursing Commons](#), and the [Public Policy Commons](#)

Recommended Citation

Beggs, Alex RN, MSN, "A Qualitative Assessment of New Graduate Nurse Practitioners First Year of Practice" (2018). *Muskie School Capstones and Dissertations*. 137.https://digitalcommons.usm.maine.edu/muskie_capstones/137

This Capstone is brought to you for free and open access by the Student Scholarship at USM Digital Commons. It has been accepted for inclusion in Muskie School Capstones and Dissertations by an authorized administrator of USM Digital Commons. For more information, please contact jessica.c.hovey@maine.edu.



Master of Public Health Capstone Project

A Qualitative Assessment of New Graduate Nurse Practitioners' First Year of Practice

First Reader: Brenda Joly PhD, MPH

Second Reader: Erika Ziller PhD

Principle Investigator:

Alex Beggs RN, MSN

MPH Candidate

Muskie School for Public Service

University of Southern Maine

**MUSKIE
SCHOOL**

Contents

Introduction.....	3
Background.....	3
Description of the Problem.....	4
Theoretical Constructs.....	7
Methods.....	6
Results.....	7
Discussion.....	13
References.....	15
Appendix A (theoretical constructs)	17

Introduction

This project serves as a Capstone and final requirement for the Master of Public Health Degree at the University of Southern Maine Muskie School for Public Service. The project is a qualitative inquiry into the experience of new graduate nurse practitioners' in their first year of practice, and their transition from the registered nurse (RN) into the nurse practitioner (NP) role. Using the theoretical constructs of Benner's "From Novice to Expert" and the Burch's "Conscious Competence model" new graduate nurse practitioners' experiences will be analyzed. Risk and protective factors for role confidence will be identified through the use of qualitative data obtained via phone interviews with participants. The result of this project is a summary of findings relating to new graduate nurse practitioners and their experience of role transition, workplace dynamics, interprofessional communication, mentorship relationships, and confidence in practice that can be utilized by new graduate nurse practitioners entering practice. My interest in the project stems from my recent completion of the family nurse practitioner track within the Masters of Science in Nursing degree at the University of Southern Maine, School of Nursing.

Background

Nurse Practitioners (NPs) have been utilized as providers in the American healthcare system since 1965 when Henry Silver MD and Loretta Ford RN created the first NP training program at the University of Colorado (Hain & Fleck, 2014). The program was created to meet the needs of an underserved pediatric population in rural areas of the state. Nurse Practitioners command lower salaries, can be trained more quickly, and deliver similar patient outcomes as physician counterparts (Faraz, 2016). The scope of practice for nurse practitioners in the 21st century is vastly different than of NPs in the 1960s, due largely to the evolution of the role and sequential changes in the educational preparation of NPs. Today, there are approximately 222,000 NPs in the United States according to the American Association of Nurse Practitioners (AANP) and approximately 1,130 NPs practicing in the state of Maine (BLS, 2016).

Nurse Practitioners are master or doctoral-prepared Registered Nurses (RNs) with advanced training in the maintenance of health and the diagnosis and treatment of illness. Nurse Practitioners are trained within a practice area (primary or acute care) and population area (family, pediatric, adult-gerontology). Unlike physicians, scope of practice for NPs varies by state

including diagnostic and prescriptive authority. Residency components for NPs are optional and generally a length of one year, unlike for physician counterparts where the residency is compulsory and generally 3-4 years in length for primary care practice areas. In the State of Maine, NPs practice under the supervision of an attending physician or experienced NP for the first two years of practice, after which they practice independently with full diagnostic and prescriptive authority.

The Institute of Medicine released a report in 2011 titled “The Future of Nursing” which called for nurses to strive for higher levels of education and recommended that NP practice be supported to the full extent of training and knowledge (IOM, 2011). To become an NP, you must be an RN first, although direct-entry programs have developed that allow students to complete RN content prior to NP in the same combined program allowing persons with bachelor’s degrees in other field to become NPs. Nurse practitioners in Maine must acquire advanced licensure upgrade from RN license to an Advanced Practice Registered Nurse (APRN) License, as well as entry level board certification though passing a comprehensive examination prior to practicing as an NP.

Description of the Problem

The first year of practice for new graduate nurse practitioners is a tumultuous time of transition from the RN role to the NP role, as well as the process of establishing their new identity as a provider (Faraz, 2016). As many as one-third of new graduate nurse practitioners change employment in their first year of practice due to interprofessional conflict or acceptance issues of their role by other medical provider colleagues (Sullivan-Bentz et al, 2010). Self-role acceptance is an issue for some NPs as they do not identify with nurses or physicians but as a role in-between the two (Faraz, 2016). The presence of colleague negativity and inapproachability for support questions were reported as factors for role dissatisfaction and NP turnover (Faraz, 2016; Sargent & Olmedo, 2013). Effective communication between providers and increased awareness of NP training for non-NP providers could enhance job satisfaction and reduce NP turnover.

A study by Hart and Macnee (2007), surveyed 562 NPs at various stages of their careers, only 10% of the sample indicated that they felt very well prepared to practice after completing basic NP education. Fifty-one percent indicated that they only felt somewhat or minimally prepared to practice after completing basic NP education. Another study, by (Sargent & Olmedo, 2013) reported that 70% of their sample indicated they were “somewhat uncomfortable” in their

new NP role. This highlights the apprehension that new graduate NPs undergo during the transition of roles. Nurse practitioner programs have significant variability in credit hour requirement, content coverage, degree level, and clinical placement and hour requirements from institution to institution (IOM, 2011). The variability in graduate NP programs has the potential to foster gaps in knowledge in particular clinical areas left uncovered by the curriculum due to the region of origin of the program. Due to the variability in training, there is ambiguity and reservation expressed by physician organizations, for example the American College of Physicians (ACP) about the training of NPs and their ability to deliver care safely and effectively in an independent manner (ACP, 2009).

Nurse practitioners in their first year of practice identify gaps in their training that contribute to the feelings of inadequacy and self-doubt (Heitz et al, 2004; Kelly & Mathews, 2001). Physicians are commonly unfamiliar with the training of the primary care nurse practitioner both in breadth and depth of knowledge leading to decreased autonomy of the NP under physician general supervision. This lack of role acceptance which is generally due to unfamiliarity, is shown to lead to high rates of NP turnover in the first year of practice (Sullivan- Bentz et al, 2010). Communicating effectively can be difficult for NPs who are new to the role, as they are figuring out their place and exploring what they know and don't know; approachability of supervising providers either physician or NP is important factor in contributing to the satisfaction or stress of the new graduate nurse practitioner (Sullivan-Bentz et al 2010; Spoelstra & Robbins, 2010). The completion of a post-graduate residency with strong physician or experienced NP mentorship over the year period made new graduate NPs feel more confident in their knowledge base and in clinical skills (Faraz, 2016). The lack of a formal orientation process, and inadequate time to adapt to the new role were identified as factors contributing to role dissatisfaction and NP turnover (Faraz, 2016; Sargent & Olmedo, 2013).

The majority of the research is focused on acute care NPs in the hospital and similar settings. However, the existing research focused on primary care NPs identifies themes relating to the high turnover and dissatisfaction rates of new graduate NPs including:

- 1. Perceived Educational Adequacy**
- 2. Interprofessional Communication and Role Acceptance**
- 3. Confidence in Clinical Skills and Reasoning**

Methods

This qualitative project is an inquiry into the experience of new graduate nurse practitioners and their transition from RN to NP, educational preparation, mentorship, interprofessional communication, and clinical skills confidence. It will identify risk and protective factors for effective and confident new graduate nurse practitioner practice.

The overarching research questions to guide the project include:

1. For new graduate nurse practitioners in regard to their first year of practice; what is the lived experience of the transition from RN to NP?
2. For new graduate nurse practitioners in regard to their first year of practice; what factors contribute to NP satisfaction or dissatisfaction in their role?
3. For new graduate nurse practitioners in regard to their first year of practice; What factors contribute to confidence in skills and practice?

The sample includes N=8 participants. The participants were licensed and board-certified nurse practitioners who work in a primary care setting in the State of Maine including: Family medicine, walk-in clinic, internal medicine, or pediatrics. The participants completed accredited primary care nurse practitioner Masters-level programs either as Family Nurse Practitioner (FNP) or as Adult/Gerontology Primary Care Nurse Practitioner (AG-PCNP).

Participants were contacted through either email or via linked-in message to arrange a mutual time for data collection. Data collection was conducted through phone interview conferencing and utilized open ended questions to elicit rich data for analysis. The participants were chosen by convenience sampling and no demographic information was collected. The participants were read the informed consent document and consented verbally to participate.

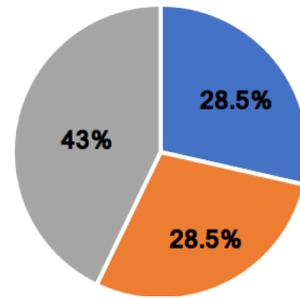
Results

Prior Nursing Experience

A visual representation of the RN experience of the participants is available in figure 1. One participant had no RN experience before becoming an NP. The remaining 7 practiced as RNs in a variety of settings. All participants who practiced as critical care RNs reported higher confidence levels in practice at 6 months and at 1 year as NPs than their counterparts who were not critical care nurses previously. The participants that possess critical care experience also possess 5+ years of experience in their area of nursing, and each reported that they owed their prioritization and triage skills as NPs to their background in critical care as RNs. Table 1 is an adaptation of Benner’s Stages of Nursing Development (See appendix A for reference) which, subjectively assigns participants to stages of development as RNs and NPs based on data collected in the interviews regarding their experiences.

Figure 1
RN Experience

■ Outpatient Care ■ Inpatient Care ■ Critical Care



Outpatient: Office-based, long term care, nursing home
Inpatient: Medical-surgical, acute rehab, oncology, orthopedics
Critical Care: ICU settings, ED/trauma, acute endovascular

Table 1

Benner’s Stages of Nursing Development		
	Registered Nurse	Nurse Practitioner*
Advanced Beginner	3	3
Competent	1	5
Proficient	1	0
Expert	3	0

*Nurse Practitioner participants have between 10-18 months of experience at the time of interview

Table 2 illustrates the stages of development in terms of the conscious competence model. Participants who were hired to a site where they completed a clinical rotation during NP education were more likely to report feeling comfortable in their practice setting early on. Those that were “conscious competent” and “unconscious competent” RNs in previous practice were more likely to be “conscious competent” NPs by the end of the first year of practice.

Table 2

Conscious Competence Model Stages		
	Registered Nurse	Nurse Practitioner
Unconscious Incompetence	1	0
Conscious Incompetence	1	6
Conscious Competence	2	2
Unconscious Competence	2	0

Educational Programs

As mentioned previously, there is variation in NP educational programs in the US, and nearly half of NPs in a study conducted indicated that they did not feel well prepared for practice after basic NP education (IOM, 2011; Hart & Macnee, 2007). For this reason, perceptions of adequacy of academic preparation were explored. Many participants indicated that the didactic portion of their NP training did not meet their expectations of rigor. These participants cited that the didactic courses were “self-directed learning focused, lacked depth of knowledge, were too focused on group work and not on quality lectures”. A few participants noted that they felt all courses in their programs should have met the rigor of their advanced pathophysiology courses, however did not. A few participants found their didactic curriculum to be well organized and delivered. Participants identified things that were done well in their NP programs including: body system-based lectures, seminar groups for discussion of patient cases, clinical rotation preceptors,

and pharmacology training. Participants identified things that need improvement in their NP programs including: clinical securement, structure of lectures to include less group work, less “fluff” or “busy work”, updating clinical evidence to be current.

A growing problem in NP education is that some universities are not securing clinical placements for students, requiring students to find their own placements and occasionally delaying progression in their program (Faraz, 2016). Participant experiences with clinical rotation acquisition processes were explored. Several participants had to find all of their clinical rotations without university/college assistance. Many participants received university assistance in securing rotations, however all had to find at least one rotation without assistance. A few participants noted that they started clinical rotations late in their first clinical semester due to difficulty securing sites/preceptors.

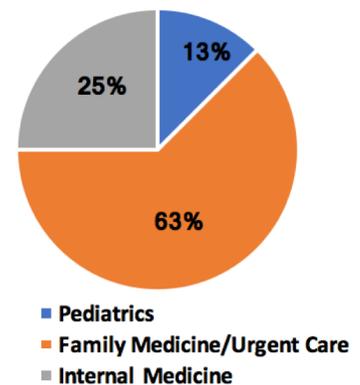
Clinical rotation requirements were explored as part of the NP programs. A few participants were required to have specific rotation experiences in family medicine, pediatrics, and obstetrics-gynecology. Several Participants were not required to have these specific rotations as part of their programs. Several participants indicated they had at least one clinical rotation that was observation-only in nature and that these experiences were less helpful for learning versus hands-on rotations. Half of the participants note that their clinical rotation preceptors were effective and of good quality. Half of the participants noted that at least one of their clinical rotation preceptors/placements was of poor quality, generally relating to interpersonal incompatibility.

Procedural skills are utilized by nurse practitioners in a variety of practice settings and for many, tend to be learned on the job (ACP, 2009). All participants reported their perception of training in procedural skills was deficient for practice, with a few participants reporting no instructions on common procedural skills in their NP program. All participants indicated they would have benefited from further procedural skill instruction. Types of procedures covered were limited; with several participants reported receiving training to perform suturing, skin punch biopsies, and pelvic exams exclusively. Few participants reported training on incision and drainage as part of their NP program training.

Practice Settings

Figure 2 to is a visual representation of the participants reported practice settings. One participant practices in an outpatient pediatric primary care office. Two participants practice in an outpatient internal medicine primary care office. Five participants practice in an outpatient family medicine primary care office or “urgent care” walk-in clinic. Many Primary care offices now have walk-in clinics at the office for episodic visits, therefore these were merged into one category for the purpose of this project.

Figure 2
NP Practice Settings



Clinical Skills and Reasoning Confidence

Participants were asked to identify skills including clinical and reasoning that are important in their practice as an NP. The skills identified were as follows: Physical exam techniques, history taking, differential diagnosis development, diagnostic lab review, procedures (EKG, I/D, pelvic exams, suturing), shared decision making, utilization of clinical mentors, and prioritization of patients and situations. Participant were then asked if they felt prepared to deliver these skills in practice as a new graduate NP, a few participants responded that they did not feel prepared to deliver these skills. Several participants reported they felt prepared to deliver these skills, with the exception of procedures. All participants indicated that most of the procedural skills that were required for their practices required on-the-job training. Confidence level in NP practice on a 1-10 scale were requested at 6-months of practice and at 1-year of practice* for all participants. The 6-month confidence levels ranged from 5-9/10 and the 1-year confidence levels ranged from 7-9.5/10. A few participants who reported 9 & 9.5/10 confidence levels at 1-year were expert RNs in critical care practice prior to becoming NPs. Both of which noted that this experience was the driving force behind their confidence as an NP. One participant noted “My critical care experience gave me the ability to prioritize patient situations and anticipate complications in care of chronically ill outpatients.”

Communication

Effective communication is important in healthcare to maximize patient outcomes and ensure understanding of the plan of care. For this reason, participants were asked to define effective communication, the components reported were: Clear and concise speech, active listening, honesty, use of open ended questions, respectful non-verbal mannerisms, and maintaining eye contact. Participants were asked if their definition of effective communication took place in their work place between providers and other office staff; a Majority of participants reported that their office is a place where effective communication takes place. A single participant from a small practice reported that “usually there was effective communication in the office” however, it depended which physician was present for consultation.

Clinical Mentors

In the State of Maine, NPs are required to be under the general supervision of either an attending physician or experienced nurse practitioner for a two-year period under a new NP license. This project will refer to the supervising practitioner as a “clinical mentor”. The relationship between a clinical mentor and the new graduate NP is important for the growth and development of the new practitioner. For this reason, participants were asked to define what qualities an ideal clinical mentor would have: Knowledgeable, actively listens, willingness to teach, guides clinical reasoning, patient, and allowing for independent thought.

Acceptance of Role

Acceptance of the NP role by other health care practitioners is a growing concern for new graduates. For this reason, participants were asked about their interactions with other members of the health care team, primarily: physicians, physician assistants, registered nurses, and medical assistants. All participants interact with at least 2 of the above-mentioned health care team members on any given day. One participant is the only medical provider in their practice setting during daily operation. Many participants interact with physicians and/or physician assistants on a daily basis. Many participants interact with physicians on a daily basis in their practice. For the participants who interact with physician(s) on a daily basis, several participants report feeling that they are approachable, pleasant, and helpful in supporting growth of the NP. Some participants report that the physician(s) they interact with on a daily basis are less approachable,

at times unpleasant and condescending regarding NP practice. Similarly, a few participants who work with registered nurses and medical assistants note that these clinical assistant staff are more supportive of MD/DOs and tend to “do more” for them. One participant mentioned that the RN’s “haze” new NPs who are new in practice, meaning that they do not support them in daily functions.

Perceived Respect and Job Satisfaction

Two components that are paramount to reducing turnover as new graduate nurse practitioners are perceived respect and job satisfaction (Sullivan-Bentz et al, 2010). All participants report feeling “completely” or “mostly” respected by their colleagues. A few participants report that they perceived that at least one physician in their practice does not respect them. The average job satisfaction score on a 1-10 scale reported by participants is 6.5/10. Some of the reasons listed for the scores reported were: criticism of NP preparation, poor practice management, not feeling respected by administration, scheduling, and EHR charting.

Discussion

Overall, the participants were enthusiastic with the data being collected and were cooperative in the interview process. There are several trends in the findings of this qualitative study. The following paragraphs will discuss overarching findings and possibilities for further research.

Participants who were “advanced beginners” as RN’s were more likely to be “advanced beginners” as NPs at the end of their first year of practice. This could be related to experience with patients in the nursing role and the repetition of patient situations building confidence over time. Participants who were “expert” nurses were more likely to report higher confidence levels in practice, and were more likely to be “competent” NPs at the end of their first year of practice. Those who were previously critical care RNs were more likely to report that their nursing experience directly influenced their NP practice. It is likely that RN experience, although a different role, gives NPs an advantage after transitioning to advanced practice over those without experience or with less experience.

Participants who were hired to a site that they completed clinical rotations during NP education were more likely to report feeling comfortable in their practice setting early on. Those that were “conscious competent” and “unconscious competent” RNs in previous practice were more likely to be “conscious competent” NPs by the end of the first year of practice. This supports the idea that RN experience may offer a base of confidence that can bolster and speed confidence acquisition at the NP level of practice.

Participants commonly reported that they felt “scared” or “like an imposter” in the early months of initial NP practice. However, they noted that utilization of clinical mentors, and repetition of patient visits were able to build their confidence in practice to the point where they felt comfortable by 1-year of practice. There is some argument that NPs should complete clinical “residencies” as post-graduate education to more closely mirror the medical model of graduate medical education (Faraz, 2016). This is a possible avenue for strengthening NP practice efficiency and confidence over their first year of practice. Research could compare and contrast confidence levels and productivity of NPs who completed residencies and those that did not.

Participants for the most part feel respected in their role as an NP, with some reporting that there is at least one physician in their practice that they do not feel respected by. As the literature suggests, this is likely due to a lack of knowledge of NP training and scope of practice by physicians. All participants are in the same NP position as they were when they started practicing, however one participant is planning on changing positions in the next 30 days.

There was significant variation in education amongst NP programs even in a close geographical region. There is support for more thorough training in clinical procedures that are commonly used in primary care practices for FNPs and AG-PCNPs. One participant noted “we need a standardized curriculum for all NP programs” to lessen the ambiguity in training and scope of practice for NPs. Multiple participants note that the curriculums include “too much busy work and not enough lecture time on clinical medicine”.

Participants note that it is important to utilize your clinical mentor when questions regarding care arise, especially in the first year of practice. One participant noted “you need to know what you don’t know and ask for help at that time, or you could put patients at risk”. Using clear and concise verbal communication with eye contact was reported as important skills for effectively communicating with clinical mentors. For those who have interpersonal conflict with their clinical mentor (license supervisor) it is suggested by multiple participants to find an alternative provider to utilize as a resource. One participant changed clinical mentors at their request due to interpersonal conflict.

References

- American College of Physicians. (2009) Nurse practitioners in primary care. American College of Physicians Policy Monographs. Retrieved from:
https://www.acponline.org/acp_policy/policies/nursepractitioners_pc_2009.pdf
- Barnes H. (2014) Nurse practitioner role transition: A concept analysis. *Nursing Forum*, 50(3): 137-146.
- Benner P. (1982) From novice to expert. *American Journal of Nursing*, 82(3):402-407.
- Bureau of Labor Statistics (BLS) (2016) Occupational Employment Statistics: Nurse Practitioners. retrieved from: <https://www.bls.gov/oes/current/oes291171.htm>.
- Brown Olshansky (1997) From Limbo to Legitimacy: A theoretical model of the transition to the primary care nurse practitioner role. *Nursing Research*, 46(1):46-51.
- Faraz A. (2016) Novice nurse practitioner workforce transition into primary care: A literature review. *Western Journal of Nursing Research*, 38(11): 1531-1545.
- Flower J. (1999) In the mush. *Physician Executive*, 25(1): 64-66.
- Hain D., Fleck L. (2014) Barriers to NP practice that impact healthcare design. *Online Journal of Issues in Nursing*, 19(4).
- Hart A.M., Macnee C.L. (2007) How well are nurse practitioners prepared for practice: results from a 2004 questionnaire study. *Journal of the American Association of Nurse Practitioners*, 19(1): 35-44.
- Hill L.A, Sawatzsky J.V. (2011) Transitioning into the nurse practitioner role through mentorship. *Journal of Professional Nursing*, 27(3):161-167.
- Howell, W. S. (1982). *Conscious and competence. The empathic communicator*, University of Minnesota: Wadsworth Publishing Company.
http://changingminds.org/explanations/learning /consciousness_competence.htm
(accessed May 1st, 2009).
- Institute of Medicine (IOM). (2011). *The future of nursing: Leading the change, advancing health*. Washington, D.C.: The National Academies Press.
- Kelly N.R., Mathews M. (2001) The transition to first position as nurse practitioner. *Journal of Nursing Education*, ;40(4):156-62.

Rich E. R., Jordan M. E., Taylor C. J. (2001). Assessing successful entry into nurse practitioner practice: A literature review. *Journal of the New York State Nurses Association*, 32(2), 14-18.

Sargent L., Olmedo M. (2013) Meeting the needs of new-graduate nurse practitioners: a model to support transition. *Journal of Nursing Administration*, 43(11):603-10.

Spoelstra S.L., Robbins L.B. (2010) A qualitative study of role transition from RN to APN. *International Journal of Nursing Education Scholarship*, 7(1):1-14.

Sullivan-Bentz M., Humbert J., Cragg B., Laflamme C., Bailey P., Doucette S. (2010) Supporting primary care nurse practitioners' transition to practice. *Canadian Family Physician*, 50(11): 1176-1182.

(APPENDIX A)

Theoretical Constructs

This research utilizes two theoretical models as its underpinnings, defining themes and patterns in data collected. The two theories are related as they both focus on skill, knowledge and confidence acquisition as a learner in a new role. In the case of this research, we are focused on new graduate nurse practitioners and their transition from RN to NP.

“From Novice to Expert” Nursing Model

Patricia Benner’s (1984) “From Novice to Expert” is a theory of nursing development that focuses on the stages of clinical competence adapted from Dreyfus’ Model (1980). She highlights characteristics of practice and knowledge development in each stage relating to nursing practice.

1. Novice
 - a. The novice, which is usually the student, has no experience taking care of patients, or performing tasks that they were instructed to complete. They are taught general rules as a guideline to complete tasks. These rules are context free, are independent of patient cases, and applied universally. This creates rule-governed behavior which is largely limited and inflexible. Classic quote of novices “tell me what to do and I’ll do it”.
2. Advanced Beginner
 - a. The advanced beginner, which is usually in the first year of practice, demonstrates acceptable performance gained through prior experience in clinical situations which allow them to recognize recurring and meaningful components of care. They function on experience driven-principles that guide actions.
3. Competent
 - a. The competent individual, typically with 2-3 years of experience, is more aware of long term goals. They perceive care in discrete parts and gain perspective from planning actions that are based on conscious, abstract, and analytical thinking. They begin to recognize patterns and determine relevancy of clinical information. They work towards integrating the discrete parts, on efficiency, and organization/prioritization.

4. Proficient

- a. The proficient individual, typically with 3-5 years of experience, perceives and understands situations as a whole and no longer as discrete parts, they utilize patterns to identify clinically relevant information, require less conscious planning in care, and learn to adapt on the fly from experiences. Care is more holistic with improved decision-making skills.

5. Expert

- a. The Expert, typically with 5 or more years of experience, no longer relies on planning or analytic principles. They function on unconscious intuition that has developed over the course of their clinical experience. They can apply abstract and theoretical patterns to care and function holistically. They hone in on clinically relevant areas, and intervene in a fluid, flexible, and highly proficient manner.

Conscious Competence Model

The Conscious Competence learning model by Noel Burch (1980) was based on early workings of the theorist Abraham Maslow (Flower, 1999). It is a model that focuses on the learner of a new skill or trade through 5 levels of competence. This is a model that can be used to evaluate the progression in competence for medical providers however, is used in multidisciplinary fields other than nursing and medicine, therefore is highly flexible (Flower, 1999; Howell, 1982).

1. Unconscious Incompetence

- a. A novice who is unaware of relevant information or skills to master. They utilize algorithms/guidelines for and work with direct instruction. They are unable to regulate or self-correct mistakes. They rely on basic material and focus on specific tasks at hand. They commonly ask, “Tell me what to do, and how to do it”. (Flower, 1999; Howell, 1982).

2. Conscious Incompetence

- a. An apprentice who is aware of skills to master, and where to find relevant information. This person is beginning to acquire skills and is aware of areas for improvement and further development. Supervision at this stage is essential, but does not need to be direct in nature. Algorithms/guidelines are becoming internalized with practice in a limited manner. The apprentice must focus on task

at hand, and closely self-monitor, but is able to self-correct mistakes. They perform poorly when stressed or overwhelmed. This person has learned most of the basic materials, and can correctly select algorithms to apply, commonly asks “how can I do this better”. (Flower, 1999; Howell, 1982).

3. Conscious Competence

- a. A journeyman is an individual who is competent in practice, relevant information and skills have been achieved, and they recognize what is beyond their competence. This person can utilize, combine, or modify algorithms to the situation with conscious effort. Curve balls, conflicts with learned patterns, or stress may impair performance. This person can integrate and modify existing algorithms into practice, self-correct mistakes, understands basic material and can apply it to new situations, however, has not fully integrated knowledge conceptually and therefore cannot create new algorithms. They commonly ask, “How do I create a new algorithm from experiential knowledge?” (Flower, 1999; Howell, 1982).

4. Unconscious Competence

- a. An expert with enough practice and skills development with integrated intuition which is automatic. They can prioritize situations, they no longer rely on existing algorithms, but commonly and unconsciously create algorithms based on their own experiential knowledge. They have mastered basic knowledge and can teach conceptually. Automaticity is common in this stage, and can pose risk at times as people unconsciously expect prior experiences to turn out similarly. This person is comfortable in their knowledge and experience, can teach (however cannot always identify why they do something the way they do). Commonly say “Here, let me show you a better way”. (Flower, 1999; Howell, 1982).