WESTERN UNIVERSITY OF HEALTH SCIENCES

Pomona, California

SUPPORTING GRADUATE NURSES' TRANSITION TO PRACTICE: OUTCOMES OF A PILOT RESILIENCY TRAINING PROGRAM

A scholarly project submitted to the

College of Graduate Nursing

in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

Melanie Anne Schock

College of Graduate Nursing

July 2020

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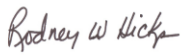

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Acknowledgements

Completion of this DNP project stems from the contributions of several individuals. First, Katie Serr, my practice mentor. Katie suggested the concept of resiliency and gave attention to the evolving literature surrounding resilience-related implications for new nurses entering the profession. From there, Katie graciously allowed me to permeate her well-established, strong nurse residency program with resiliency training. It was indeed my privilege to accompany her through two cohorts of nurse residents during this journey. Thank you, Katie for embracing my project and supporting the process from start to finish.

For Dr. Rodney Hicks, my WesternU faculty advisor. From the moment I saw *my* name on *your* student advisee "list", I knew I would be well supported. Your keen eye for detail, scholarly writing excellence, and striving attitude are just a handful of your many talents that I someday hope to achieve. I have many aspirations as a DNP scholar, and one of them is to mentor students as you have graciously done for me. Thank you for pushing me to write better, think wiser, and BE a successful doctoral student.

Lastly, I acknowledge the 20 nurse residents who participated in my DNP project. Thank you for embracing my vision and taking the six-month voyage with me. It is my hope that every one of you has a rewarding, passionate, and tenacious adventure as a registered nurse. Even when times are tough, and they certainly will be, may resilience support you along the way.

Dedication

For my husband, Bob, for unconditionally supporting and encouraging me to finish this journey. All this, despite my tireless hours in front of my laptop and juggling of personal, professional, and academic demands. I could not have taken this voyage without your steadfast love.

For my children, Noah and Peyton who oftentimes did not really comprehend why their mom was distracted and/or busy on most days. Still, I need them to understand that diligence and arduous work does have its rewards. I love you both for all the joy, pride, and life's meaning that you bring into my heart each day.

For my mom, Nancy, who is often referred to as my '*biggest fan*'. Thank you for the technical support and ongoing editorials. No matter what day or time, you always seemed to be there for me. This reality is steadfast, and for that, I am grateful. For these reasons and many more, I consider you my mom and my best friend.

Abstract

SUPPORTING GRADUATE NURSES' TRANSITION TO PRACTICE: OUTCOMES OF A PILOT RESILIENCY TRAINING PROGRAM

by Melanie Anne Schock, DNP

Background: Newly graduated nurses' transition to professional practice is rigorous. Nurse residency programs (NRPs) offer an onboarding process to assist new nurses during the first year as a licensed nurse. Incorporating resiliency training into nurse residency education programs (REPs) can augment nurses' movement from academia to practice.

Purpose: Determine the impacts of resiliency training integrated into a nurse residency program.

Methods: Twenty nurse residents participated in a six-month nurse residency education program embedded with monthly resiliency training sessions. Strategies to increase resilience followed TRACOM's Adaptive Mindset for Resiliency platform. Pre-/post- intervention surveys were used to measure residents' self-reported levels of resilience (CD-RISC-25) and elements of transition to professional practice (Casey-Fink RFP and GNE).

Results: Aggregate mean CD-RISC-25 scores increased from baseline to post-intervention. Participants reported that they utilized the resiliency-building strategies while working and provided favorable quantitative and qualitative feedback about the resiliency program. For the Casey-Fink surveys, four of the seven questions showed improvements in mean responses from the nurse residents: communication with physicians, caring for dying patient, delegation to UAP, and opportunities to practice skills/procedures. Three questions: ease in asking for help, difficulty prioritizing, and satisfaction with chosen specialty resulted in slight, unfavorable changes from baseline.

Implications: The results align with prior studies and support the use of resiliency-building strategies to enhance transition to nursing practice. In addition to a structured nurse residency program, resiliency training is a beneficial intervention for new nurses during the first year of practice and beyond.

Keywords: resilience, resiliency, nurse residency program (NRP), newly licensed nurse (NLN), transition to practice

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Chapter 1

An elaborate healthcare system with clients having complex care needs is recognized as today's norm. Six in ten Americans live with at least one chronic disease, such as heart disease and stroke, cancer, or diabetes. Chronic diseases such as these are the leading causes of death and disability in America (Centers for Disease Control and Prevention, 2019). According to Ortman, Velkoff, and Hogan (2014), the United States (U. S.) is experiencing considerable growth in its older population. In 2050, the population aged 65 years and over is predicted to be 83.7 million, almost double its estimated population of 43.1 million in 2012. People born between mid-1946 and mid-1964 (the baby boom generation) are largely responsible for this increase in the older population. The baby boomers began turning 65 years of age in 2011 and by 2050, those surviving will be over the age of 85 years (Ortman et al., 2014). With larger numbers of older adults, chronic diseases and comorbidities complicate both the treatment and the recovery processes. Consequently, the health care environment is potentially more stressful and rigorous.

Nurses entering this ornate healthcare system are expected to navigate and respond appropriately. This navigation is carried out, in part, by exercising the ability to transfer knowledge from the classroom to application of this knowledge at the bedside. "Overall, the expectations for new nursing graduates cluster around the ability to initiate and adapt to change, use critical thinking in problem-solving, attain a basic level of skills, and be able to communicate with clients and staff." (Catalano, 2015, p. 74). Well-prepared registered nurses (RNs) with these basic competencies are needed as health care is rapidly advancing and biotechnology is at the forefront to help individuals resolve health care problems and recover quality of life

(Academy of Medical-Surgical Nurses [AMSN], n.d.; Concilio, Lockhart, Oermann, Kronk, & Schreiber, 2019).

Resiliency is a relevant topic for new graduate nurses because resiliency has been named as a key factor for nurses' ability to not only endure challenges, but also flourish in the new roles as licensed nurses. In the new role, a nurse's psyche is abetted by resilience and this leads to effective coping with the negative consequences of workplace stress (Fletcher & Sarkar, 2013). To perform successfully while stressed, resiliency augments a nurse's ability to command psychomotor skills and cognitive-behavioral skills (McAllister & Lowe, 2011). Psychomotor skills include communication and task performance in a correct and prompt manner. Cognitive-behavioral skills include mindfulness, compassion, emotional intelligence, and re-framing cognition. Yu and Lee (2018) state that resilience mediates the effects of emotional labor on job involvement resulting from lowered stress response, protection from stress, and mitigation of stress. Finally, according to Turner (2014), the ability to thrive in both the work environment and in life outside of work comes to those who are highly resilient.

Resilience can be learned, developed, and enhanced via cognitive practices, education, and support within one's environment. Further, innate resilience potential can be cultivated by developing the dimensions that recognize moral adversity and suffering in daily life and particularly in clinical settings (Rushton, Kaszniak, & Halifax, 2018). Turner and Kaylor (2015) propose primary, secondary, and tertiary interventions for building resilience in nurses. Primary strategies include identity building by exploring strengths and weaknesses, which would help foster the ability to form strong lines of defense (McAllister & McKinnon, 2009). Secondary interventions target self-development and, according to Jackson, Firtko, and Edenborough (2007), include building nurturing relationships and networks, upholding positivity, developing

emotional insight, reaching life balance and spirituality, and growing reflective skills. Tertiary interventions target stress responses and focus on how people change to decrease or eliminate stressors. This targeting and focusing is carried out by restructuring the nurse's lines of defense, changing ways of thinking about nursing practice, and learning from past problems (Turner & Kaylor, 2015).

Building resilience begins within the academic setting. According to Stephens (2013), nursing student resilience is a process of development that is individualized. Personal protective factors, that are used successfully, can assist nursing students to successfully navigate perceived stress and adversity. Resilience is proposed to better prepare students to face hardship and challenges while not only surviving, but thriving (McAllister & Lowe, 2011). As a result, facing other life events and challenges with hope and optimism for future successful outcomes, improved well-being, and career longevity (Stephens, 2013). Nursing students will also be more equipped to assist patients in identifying their own protective factors while navigating health challenges.

The workplace aims to sustain and/or improve resilience. Health care institutions often require new graduate nurses to complete a nurse residency program (NRP) in tandem with unit-based orientation. Spector (2015) reports that these transition to practice (TTP) programs produce significantly better outcomes including competence, self-reports of errors, use of safety practices, stress, and job satisfaction. Hospital data on retention of new nurses were also favorable. The first six to nine months of practice seem to be the most vulnerable for new graduates and TTPs can help decrease the turmoil that this population faces in their first year of practice (Spector, 2015). As nurse residents, newly graduated nurses are in a prime environment to receive help from the enrichment of resilience within an NRP. Fink, Krugman, Casey, and

Goode (2008) conducted a qualitative investigation of residency program outcomes and in addition to decreasing turnover or the intention to leave their job, the program was found to build newly licensed nurses' resiliency. Dyer and McGuinness (1996) add that these residency programs coordinate a group learning approach to on-the-job learning; and, as a protective factor of resiliency, socialization is increased.

Supporting newly licensed nurses' resilience is important because America's health care system is under unprecedented strain and there are not enough nurses to meet that need. Newly created nursing positions and replacing retiring nurses will contribute to the occupation's need for growth. Registered nursing is listed among the top occupations in terms of job growth through 2028, expected to grow 12.1 percent (371,500 nurses) from 2018 to 2028 (United States Bureau of Labor Statistics, 2019). From a nursing labor perspective, Nursing Solutions, Inc. [NSI] (2020) found that 59 percent of U. S. hospitals are projected to increase the RN staff in 2020, compounded by an existing RN vacancy rate of nine percent. This projected increase is up 14.2 percent from 2019. Also, NSI notes that it takes 81 days, close to three months, to recruit a registered nurse (2020).

Meanwhile, rigors of the health care system drive nurses to leave the profession within the first year. Nursing turnover for an institution is not only a monetary cost, but turnover negatively affects the overall workplace culture and potentially, the quality of patient care. According to the National Council of State Boards of Nursing [NCSBN] (2017), 25 percent of all new nursing graduates leave a position within 12 months of employment in the United States. These departures are particularly alarming for organizations given the projected nursing shortage. On average, it costs an organization $90,000 for a single RN exit, translating to an average total cost of RN turnover per hospital per year of 6.6 million dollars (Advisory Board,

2018). Transitioning from an educational program to the professional practice setting, a long-standing issue is acknowledged to be a period of stress, role adjustment, and reality shock (Casey, Fink, Krugman, & Probst, 2004).

Problem Statement

Newly graduated nurses face challenges while moving from the classroom to professional practice and are often ill-equipped to optimally make this transition. At a Midwestern acute care hospital, there was a need to understand the effects of resilience training for its recently hired nurse graduates in a nurse residency program and the impact that the training would have on the residents' transition to practice.

Purpose Statement

The purpose of this project was to evaluate the impact of resiliency training on new graduate nurses in a nurse residency program (NRP). Specifically, the *graduate nurse experience* and *level of resiliency* prior to and then following resilience-building interventions.

Scope of the Project

The scope of the project was to integrate six resiliency-building strategies into an established nurse residency program. Participants in the project were twenty newly graduated and newly hired registered nurses within the prior six-month timeframe. The nurse residents' self-reports of resilience and ability to transition into professional nursing practice were evaluated at the conclusion of the residency education program and compared to baseline self-reports. To achieve the purpose of this project, the following aims were established with corresponding questions.

Specific Aims

Aim I: Feasibility and Impact

Assess the feasibility and impact of integrating a resiliency training program within a nurse residency program for nurse residents at a large Midwestern academic medical center. Feasibility was operationalized through evaluation of participant intervention compliance and adherence rates. Impact was measured via end-of-study questions about stress and anxiety levels and degree of impacts of strategies learned.

Project questions I: What were the levels of participant intervention compliance and adherence rates among nurse residents at a large Midwestern academic medical center who participate in the resiliency training program? What were the impacts of the resiliency training program?

Aim II: Self-Reported Levels of Resilience

Assess the effect of resiliency training on participant resilience at baseline and post-training among nurse residents at a large Midwestern academic medical center.

Project question II: What was the difference in resilience between baseline and post-training among nurse residents at a large Midwestern academic medical center?

Aim III: Transition from Student to Professional Nursing Role

Assess the effect of resiliency training on participant transition to professional nursing practice at baseline and post-training among nurse residents at a large Midwestern academic medical center.

Project question III: What was the difference in attitudes about transition to professional nursing practice between baseline and post-training among nurse residents at a large Midwestern academic medical center?

Stakeholder Analysis

A successful transition to professional nursing practice has implications for not only the new nurse, but also the organization in which he/she joins in the new role. Onboarding programs, including nurse residency programs (NRPs), are in a prime position to incorporate strategies to augment new nurses' transition to professional practice. Resiliency training is a strategy that has potential to directly impact nurse residents. NRP directors, patient populations, and healthcare facilities stand to reap the positive effects of professional transition tactics. For CHI St. Alexius Health, stakeholders were delineated as follows:

Nurse Residents

Moving from academia to professional nursing practice is a complex, dynamic, and individualized process. New nurses need and deserve the tools necessary to ease the transition into their first nursing role. This project had a reciprocal relationship with the nurse resident cohort.

Nurse Residency Program (NRP) Director

Infiltration of the established nurse residency program was possible after achieving a working relationship with the NRP director. The NRP had an evolving curriculum (Residency Education Program, [REP]) based on previous cohort's evaluative feedback and practice outcomes. Adding resiliency training to the existing monthly residency sessions served as a logical compliment.

Clients

Nurses with a seamless transition to practice can provide care to clients in ways that are more self-assured. Secondary gains for the patient population include broad areas of safety and satisfaction surrounding their healthcare experience.

Healthcare Facility

Nurse turnover and intent to stay pose ongoing challenges from a monetary standpoint and quality outcomes such as patient safety and patient satisfaction. Elevated levels of turnover also put strain on existing nursing staff, contributing to burnout. Facilitating the new nurse's transition to practice via resilience contributes to longevity within their initial position.

Chapter 2

Theoretical Perspective

Duchscher's Stages of Transition Theory

Nurse theorists play a vital role towards understanding how to shape the transition of new graduate registered nurses (NGRNs). The Stages of Transition Theory describes this transition in three stages: *doing, being, and knowing* (Figure 1).

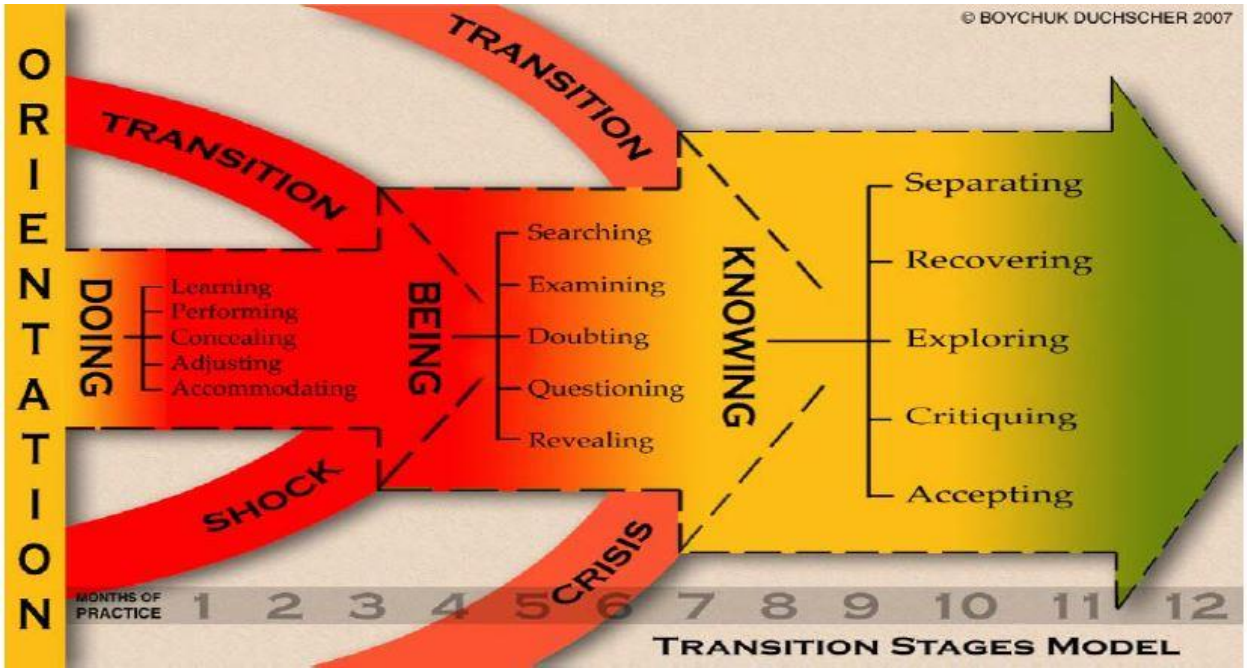

Figure 1. The Stages of Transition Theory. Duchscher's Stages of Transition Theory: A twelve-month staged experience of transition for new graduate nurses (Duchscher, 2008, p.443).

Supported by Benner's Novice to Expert Theory (Benner, 1982), the Transition Theory pertains to the new nurse's first 12 months of practice (Duchscher, 2008). Personal and professional selves are developed as these novice practitioners move through escalating levels of knowledge and broadening scopes of practice. "The Stages of Transition Theory suggests that allowing graduates time to adjust to what 'is' within a context of support that allows them to develop their

thinking and practice expertise will assist them to move through the stages of professional role transition." (Duchscher, 2008, p. 449). Orderly processes that include anticipating, learning, performing, concealing, adjusting, questioning, revealing, separating, exploring, and critiquing contribute to the whole of this journey for NGRNs. The three main stages (doing, being, and knowing), are overarched by what is known as *transition shock*. This phenomenon occurs in the first three to four months of transition. *Transition crisis* occurs approximately eight months into the new graduate's initial twelve months of clinical practice (Duchscher, 2008).

Ultimately, Duchscher found that the journey is evolutionary and transformative even though it is by no means linear or prescriptive, nor always strictly progressive. Acknowledging then, that personal and professional adjustments during the first year of practice vary according to one's own personal history, coping mechanisms, support networks, co-existing life issues and stress resilience levels (Duchscher, 2012). The transition continuum represented by the Stages theory is intended to be used as a guide by clinical educators, unit managers, and administrators who wish to successfully integrate new nurses into the workplace (Duchscher, 2008). Importantly, the theory supplies a perfect backdrop for support of new nurses' transition to practice by way of resilience.

Doing Stage

In the first three to four months, new nurses are confronted by a new set of expectations and responsibilities which challenge their personal and professional selves. Disparities between what the new nurse predicted about one's role as a nurse and what they are expected to do in the 'real' world are common. This discrepancy is a direct result of entering the professional transition with expectations and anticipations that are idealistic more than realistic. Oftentimes,

the new nurse believes that lack of educational preparation causes these disparities (Murray, Sundin, & Cope, 2019).

The functional learning curve is steep and dominates this stage of transition. What began as a solid professional identity deteriorates under the weight of performance anxiety and self-doubt. Limited experience with the application of skills and knowledge, coupled with lack of predictability and familiarity with the multitude of clinical contexts, tends to result in significant levels of anxiety for the new nurse. Once the new nurse can ask questions, accept limitations, and feel more comfortable, then movement into the next phase of learning can take place (Duchscher, 2001).

Being Stage

The second stage, during the next four to five months, is marked by advancement in thinking, knowledge, and competency. The new nurse begins to apply practical meaning to their theoretical knowledge and as a result, moves from a new beginner to someone who can see beyond their own abilities (or inabilities) to see the patient (Duchscher, 2001). At the same time, inconsistencies, and inadequacies in the health care system test pre-graduate notions. Frustration and energy consumption that characterized the prior stage, continues at a slower, but relentless pace.

Recovery during this stage results from reacquainting with personal aspirations. New-found liberation is acquired as new nurses adjust and accept changes to their personal and work life schedules. Within six to eight months post orientation, challenges to thinking, new and unfamiliar practice situations, and the planning of long-term career goals result from a rejuvenated spirit (Duchscher, 2008).

Knowing Stage

Finally, in the *knowing* stage, greater expectations and a reduced margin of error often lead to harbored apprehension. Stress levels change from individual coping with roles and responsibilities to frustrations in dealing with the system at large. Especially toward the latter half of this stage, more time is spent exploring and critiquing the new professional landscape. Fortuitously, by the 12-month marker, nurses achieve a stable level of comfort and confidence in roles, responsibilities, and routines (Duchscher, 2008).

Duchscher's Stages of Transition Theory supplies the basis for supplying resilience training for new nurses during this fragile time and highlights the importance of acknowledging each nurse's relative position on the continuum of transition experience. While graduates are being allowed to relax and enjoy their hard-earned comfort level through Duchscher's stages, resilience training can augment the journey. Increasing resiliency can help to alleviate the challenges of slowly advancing thinking and practice for new nurses. All encompassing, Duchscher's theory supports "…mentoring, socialisation, positive reinforcement and continuing support for NGRNs." (Chang & Daly as cited in Murray et al., 2019, p.202). For nurse residency programs, a partnership between resiliency training and Duchscher's theory can set up the foundation for best support of entry-level nurses.

Chapter 3

Literature Review

Database Search, Key Words, and Outcomes

The investigator conducted an iterative review of the literature via the Bismarck State College Library and the Harriet K. and Philip Pumerantz Library. Both libraries used EBSCO*host* to access the following databases for this review: Cumulative Index for Nursing and Allied Health Literature (CINAHL®), PsycINFO®, Academic Search Elite, and Science Citation Index, ScienceDirect, Directory of Open Access Journals, and Educational Resources Information Center (ERIC™). The database searches spanned up to December 1, 2019 without other date constraints. The investigatory also accessed ClinicalKey® for further literature at the CHI St. Alexius Medical Center. The search included key terms such as *resilience* and *resiliency* to find relevant studies and resources. These terms were searched individually and in various combinations with the following terms: *graduate nurses, newly hired nurses, newly licensed nurses, nurse residency, transition to nursing practice, nurse onboarding, fostering strategies, concept analysis, concept, and concept clarification.* Resilience as it relates to nursing: *retention, attrition, protective factors, coping strategies, turnover, horizontal violence/incivility* also contributed to the review.

Inclusion criteria applicable to the literature search included: (a) written in English; (b) peer-reviewed journals, dissertations, and books; (c) research and/or conceptual studies; and (d) recent publication (with exceptions made for seminal material). The investigator included unpublished doctoral dissertations if inclusion criteria were met. In addition, the investigatory performed a manual search of articles that were missing from the electronic search by examining the references in relevant articles, and those further sources that met the inclusion criteria.

Although resilience is certainly a presence in other workplace environments and professions, exclusion criteria included non-nursing industries. Exclusion also included resiliency as it relates to clients and illness trajectory, including family members and caregivers.

The investigator retrieved 110 articles. The investigator reviewed abstracts to determine significance to new nurse resiliency and removed duplicate articles. The remaining 74 references were cogent to the purposes of this project. These references stand for recent and/or noteworthy contributions to the study of graduate nurse resilience.

The investigator evaluated 43 the records for methodological rigor and relevance of findings to the project. The Association of periOperative Registered Nurses (AORN) Non-Research Evidence Appraisal Tool and Research Evidence Appraisal Tool aided in this evaluation process (Association of periOperative Registered Nurses [AORN], 2019; Spruce, Van Wicklin, Hicks, Conner, & Dunn, 2014). The investigator kept all reports in the final sample in the data analysis stage, regardless of the outcome of the data evaluation.

Hierarchy of Evidence

The Association of periOperative Registered Nurses (AORN) Research Appraisal Tool and Non-Research Appraisal Tool were used to examine the level of evidence (Appendix A). Levels of evidence were graded I-III (strength of evidence for research), IV-V (strength of evidence for non-research), and A-C (quality of evidence for research and non-research). Of the 43 articles included: 2 studies received the highest strength and quality score of IA. Most of the articles were III and V, most of which received a quality of evidence score B.

Table 1

Strength and Quality of Evidence

Evidence Levels		Number included in DNP Project
I	A	2
II	A	2
II	B	1
III	A	6
III	B	13
III	C	3
IV	B	4
V	B	10
V	C	2

Literature Summary

Resiliency is a crucial element in the field of nursing. The nursing profession is trusted with clients who are vulnerable and distressed. Consequently, while supplying a prominent level of care, some nurses may experience compassion fatigue or burnout. New nurses are more susceptible to these effects (Hunsaker, Chen, Maughan, & Heaston, 2015). Add evolving demands of the 21st century, and resilience, more than ever before, is a special process that allows nurses to overcome stress and empower growth from negative experiences (Shin, Kim, & Ji, 2018). Resilience can also protect nurses against stress as it cultivates a greater capacity to cope with the rigors of the nursing role (Zander, Hutton, & King, 2010). As nurses experience stressful workplace environments and face turnover intention, coping positively needs a multidimensional understanding of the resilience of nurses (Hart, Brannan, & De Chesnay, 2014). Additionally, when addressing stressors and stress outcomes, intervening early can help deter a negative spiral of events (Gelsema et al., 2006).

To summarize the literature, articles were congregated by four main themes for nursing: (a) History and Characteristics of Resilience as a Personal Trait, (b) Professional and Personal

Consequences associated with Levels of Resilience, (c) Strategies for Increasing and Fostering Resilience, (d) Professional Nursing: Considerations for the New Nurse.

History and Characteristics of Resilience as a Personal Trait

Resilience is not easily understood and is challenging to qualify and quantify; however, resilience is a vital attribute to own. The concept of resilience surfaced in the 1970s as pediatric psychologists followed children who had lived through traumatic home situations. Despite the chaos and tragedies of childhood, the researchers found that some children were able to live healthy adult lives (Turner, 2014). Answering the question, 'What human trait or characteristic enables people to thrive in the aftermath of misfortune or adversity?' is what eventually led to the term *resilience* (Turner, 2014).

Since the 1990s, resilience has been defined in many ways and depends on the context where the term is applied. A common defining thread involves the abilities and characteristics that allow an individual to cope successfully and function above the norm (Tusaie & Dyer, 2004). These abilities and characteristics occur despite significant stress and adversity, along with having the ability to bounce back, adjust, and keep equilibrium (Jackson et al., 2007). Associated with nurses in the workplace, it is thought that resilience is the *hinge* on which stressors and rewards are balanced. Therefore, high degrees of resilience push the scale's side of rewards and enhance the nurse's engagement. "In contrast, diminished resilience can shift the balance in the opposite direction, leading to burnout" (Press Ganey, 2018a, p.3). Further understanding the concept of resiliency is a multifaceted undertaking. A first step towards this understanding is to investigate the characteristics of resiliency.

Many variables explain resilience in the context of nursing. Gillespie, Chaboyer, Wallis, and Grimbeek (2007) conducted a correlational study to develop and test a model for resilience.

These authors discovered that five variables explained resilience in 772 Australian operating room (OR) nurses: hope, self-efficacy, coping, control, and competence. Hope and resilience had a highly significant statistical association. A supportive workplace can reduce the effects of potential stressors and enhance hope as an intrinsic factor. Strong associations were discovered between resilience and self-efficacy. Self-efficacy is the ability to use a repertoire of problem-solving skills to deal with change (Tusaie & Dyer, 2004). Coping and control both had moderate statistical associations with resilience. Coping is a problem-focused approach that involves strategies such as mitigating the stressor, denial, or distancing (Lazarus & Folkman as cited in Gillespie et al., 2007). Maintaining control augments resilience through situational adaptation (Bandura as cited in Gillespie et al., 2007). Control, as an explanatory variable of resilience, can minimize the effects of a stressful environment. Last, competence showed a modest association with resilience. Skillful nurses were more likely to show control in problematic clinical situations. Three authors furthered studies involving 735 operating room (OR) nurses when a predictive survey design looked at age, years of OR experience, and education as contributors to resilience (Gillespie, Chaboyer, & Wallis, 2009). The authors affirmed that "…resilience appears to be predicted by other attributes and is not necessarily dependent on an individual's personal characteristics." (p.968).

One such attribute of interest is Type D personality. Type D (distressed) personality is characterized by two key factors: high negative affectivity and social inhibition. Both factors are thought to have negative predictors of resilience. Skodova and Banovcinova (2018), in a cross-sectional correlational study, found that nursing students with elevated levels of Type D personality characteristics had lower levels of both resilience and sense of coherence (this being used as the second measure of resilience). As a different focus, Press Ganey (2018a) used

engagement data to look at resilience as it relates to occupational burnout. Press Ganey determined that burnout resilience is a function of the level of engagement with work (activation) and the ability to decompress from work (decompression).

Qualitative studies supplied insight about the characteristics of resiliency as well. The theory of Sense of Coherence (SOC) guided Wahab, Mordiffi, Ang, and Lopez (2017) while using Photovoice to understand new graduate nurses' accounts of resilience. Four themes appeared from the study that supported the SOC theory: comprehensibility, meaningfulness, and manageability. The first theme involved the self-beliefs of determination and perseverance that help resilience, even during times of adversity. The second theme spoke to acceptance and fulfillment of the new role. The third theme encompassed adapting to new situations suggest resilience. The fourth and final theme spoke to initiative and taking personal charge of one's learning.

Shin et al. (2018) investigated the subjective perspectives of Korean nurses to highlight four points of view related to resilience of clinical nurses. First, "reality-harmonic type" was associated with the use of realistic coping strategies and recharging oneself by taking a break. Next, "own will type" was characterized by strong willpower and continuing the nursing job even though it was tedious. The "professionalism-oriented type" consisted of nurses who tended to pursue personal values by seeking recognition from family and clients. These nurses also made every effort to overcome hardship and stay strong, despite tough work and stress. Lastly, the "relation-oriented type" nurse took pride in being a nurse via relationships with coworkers. Equally important was to support other nurses for increased overall work efficiency (pp. 177-178).

Another qualitative study involved Portraiture was used to illuminate the portraits (verbal canvasses) of nine Australian nurses. Cope, Jones, and Hendricks (2016) defined eight themes that demonstrated resilience: "managing self; focusing on the positive; valuing social support; paying it forward; a passion for the profession; the taking on of challenge; experiencing adversity and growing through it; and, leadership." (p.89). Managing self is about self-control and self-care, while staying positive included three sub-themes: ability to reflect, choice to have hope, and the use of humor. Valuing social support referred to personal friendships with work colleagues and those outside of the workplace. The focus of paying it forward is giving, gratitude, and the positive feelings that are generated as a result. Passion for the profession was described by the participants as being absorbed in work and finding nursing to be intrinsically rewarding. Getting through frustrations and acting to solve problems was described as taking on a challenge. Resilience was also likened to enabled insight and having the personal ability to "let go." The eighth theme revolved around leadership. Participants felt strongly that being credible, competent, and visible was crucial in producing hopeful work environments.

Professional and Personal Consequences Associated with Levels of Resilience

Resiliency as a presence in nurses has consequences at the individual and organizational level. According to Simoni, Larrabee, Birkhimer, Mott, and Gladden (2004), stress resiliency is viewed as the way individuals empower or disempower themselves. In the study, two interpretive styles of stress resiliency were found to add to one's empowerment: nurses who believe in being effective (skill recognition) and do not imagine failure (deficiency focusing). Making resilience intentional has fostered the safety climate in organizational culture surveys (Hicks, Sullivan, Sexton, & Adair, 2019). Press Ganey (2018a) highlighted the connection between resilience and turnover. Suggested was that low resilience can tip the stress-reward

balance toward burnout. This burnout manifests in nurse turnover and creates a heavy toll on health care organizations.

As new nurses transition to practice, Meyer and Shatto (2018) named resilience as a factor that contributes to a positive transition. These authors note that "Resilience helps to harbor security in a constantly changing world" (p.279). Also, resilience reduces turnover, increases workplace satisfaction, and helps to safeguard nursing as a partner in healthcare (Meyer & Shatto, 2018). Nursing graduates were the population of interest for Laschinger, Wong, Regan, Young-Ritchie, and Bushnell (2013). Paired with the concept of coworker incivility, the authors found that resiliency has a protective effect against workplace incivility, along with contributing to fewer mental health symptoms. Authors of a third study involving new graduate nurses (Yu & Lee, 2018) emphasized the importance of resilience in this population's turnover intention. Results suggested that turnover intention can be changed based on resilience and how dissatisfactory job environments are overcome.

Overall, the notion that resilience can contribute in a positive way to nursing retention in the workplace cannot be denied, considering the U. S. is projected to experience a shortage of registered nurses (RNs). The U. S. Bureau of Labor Statistics (2019) found that the RN workforce is expected to grow 12.1 percent from the years 2018 to 2028. The Bureau also projects the need for an added 371,500 new RNs each year through 2028 to fill newly created positions and to replace retiring nurses. Registered nurses reaching retirement age within the next 10-to-15 years is projected to be more than one million (Health Resources and Services Administration [HRSA] as cited in American Association of Colleges of Nursing [AACN], 2019).

Strategies for Increasing and Fostering Resilience

Resilience is viewed as a skill that can be developed. Exploring coping behaviors, teaching self-care strategies, and fostering social networking, can all help the new nurse develop a resistance to stressors (Skalski, DiGerolamo, & Gigliotti, 2006). Indirectly, these strategies would certainly contribute to resiliency as well. Experience Innovation Network (2016) asked nurses what program, practice, or process had contributed to the greatest improvement in resilience, well-being, and joy. The second highest contributor was emotional intelligence and communication training, along with wellness/resilience support. With the implementation of resilience education, in conjunction with team training, Hicks et al. (2019) achieved similar outcomes. Using a focus group of intensive care unit nurses, Mealer et al. (2014) supplied a multifaceted resilience training program and found it to be workable and acceptable. In addition to lowering levels of anxiety, depression, and burnout syndrome, the levels of resilience also improved. Organizations that commit to resilience training could affect more than the staff. The result might affect outcomes for the entire organization and most importantly, clients (Rimas, 2016). The basis of resilience-building strategies should be focused on leveraging nurses' internal and external resources (Delgado, Upton, Ranse, Furness, & Foster, 2017). Internal factors include optimism, sense of purpose, faith/belief, self-care, and emotional intelligence. External (environmental) factors include social networks, workplace supports, and role models. Press Ganey (2018b) reinforces the need to address external stressors. Improving the function of teams and development of a positive organizational culture is strongly encouraged. Streamlining work to reduce burdens is also beneficial. Additionally, Press Ganey (2018b) emphasizes the value of meeting patient needs and reducing suffering, while bolstering nurses' pride in doing such arduous work.

Less than best levels of wellness result from the stressful nature of nurses' work (Craigie et al., 2016). Several studies focused on the psychosocial aspects of self-care to support resilience. As part of a pilot study, Craigie et al. (2016) supplied a one-day compassion fatigue workshop, followed by a series of weekly mindfulness seminars. Post-intervention, significant improvements were discovered in the study group for compassion satisfaction, burnout, trait-negative affect, and stress scores.

A second pilot study by Tarantino, Earley, Audia, D'Adamo, and Berman (2013) investigated the effectiveness of an eight-week program entitled "Healing Pathways." Guided imagery, yoga, meditation, creative expression, and mentorship were among the course components aimed to foster more empowered and resilient healthcare professionals. Participants reported lower levels of stress and significantly increased confidence in ability to cope at treatment conclusion. This was also true at 12-month long-term follow up (Tarantino et al., 2013).

McDonald, Jackson, Wilkes, and Vickers (2012) tested another multimodal approach to develop and strengthen personal resilience. Six-monthly workshops included collaborative, creative, and therapeutic learning activities. Post-intervention, the nurses and midwives in the study reported effective learning about the key characteristics and strategies of personal resilience.

Finally, Sullivan et al. (2012) supplied stress inoculation, management of compassion fatigue, and positive psychology concepts to staff, including registered nurses. The program goals were met as healthcare staff had the ability to perform more effectively in stressful situations. This translated as "…improved patient care outcomes, staff satisfaction, and the healthcare environment." (p.2).

Unique nursing populations were highlighted in the evidence with hopes of tailoring to resilience needs. Thomas and Asselin (2018) focused on nursing students in a literature review. Three strategic themes were found and include social support, education, and reflection. These strategies nicely complement the resilience model of *pushing through* (Reyes, Andrusyszyn, Iwasiw, Forchuk, & Babenko-Mould, 2015) and exemplify resilience as a process rather than a stagnant trait. Next, a randomized and controlled 12-week intervention study was conducted for intensive care unit nurses. The intervention was a multimodal resilience training program including written exposure sessions, event-triggered counseling sessions, stress-reduction exercises, and a protocolized aerobic-exercise regimen (Mealer et al., 2014). As a workable intervention for intensive care nurses, there was a significant decrease in post-traumatic stress disorder symptom scores after the program. A third population of focus was burn center nurses. Christiansen, Wallace, Newton, Caldwell, and Mann-Salinas (2017) developed a standardized staff development program with hopes of improving nurse satisfaction, increasing resiliency, building unit cohesion, and enhancing morale and unit performance. Following the eight-hour training day, the program was successful in supporting teamwork and resiliency among the staff. As the last focused population, Potter et al. (2013) paid attention toward oncology nurses. For nurses in this area, it was affirmed that "Compassion fatigue is a prevalent condition among healthcare providers and that the development of resiliency to compassion fatigue may improve decision making, clarity of communication, and patient and nurse satisfaction" (p.180).

New nursing graduates face unique issues in the workplace and resilience training has been proposed as a supplemental onboarding tactic. DuBois and Zedreck Gonzalez (2018) focused attention on 33 new graduate nurses in a one-year nurse residency program at an urban academic medical center. Team-based learning was chosen as the main instructional strategy,

augmented with learning sessions, brief quizzes, and activities to solve real-life problems. Application exercises included interactive games, case studies, and role play. The six-month post-survey showed improvement on positively worded items and a decrease of negatively worded items on all seven preselected items assessed on the Casey-Fink Graduate Nurse Experience Survey (DuBois & Zedreck Gonzalez, 2018). Positively worded items were found in the category of support. These items included ease in asking for help and delegating comfortably to unlicensed assistive personnel (UAP). Communication leadership was increased and translated as communicating confidently with providers and clients. Negatively worded items on the Casey-Fink Graduate Nurse Experience Survey included personal life stress, difficulty prioritizing care, and feeling overwhelmed by patient care.

Stephens, Smith, and Cherry (2017) used the Stephens Model of Nursing Student Resilience to create the RN Personal Resilience Enhancement Plan (RN PREP). This Model has five primary components. The first part involves perceived adversity. Adversity is an antecedent to resilience, and awareness of each nurse's stressors is an important first step. The second part, protective factors, are strategies used to cope with adversity. Using these factors is an ongoing process that needs continual self-reflection. The third part includes formal education programs to increase protective factors. Informal efforts such as mentoring can also reinforce the development of personal resilience. The final two components involve cumulative successes and having the ability to better manage or cope with everyday stressors, transition, and/or challenges. Although focused on new perioperative nurses, the authors suggest this Plan can be an additive to any pre-existing onboarding curriculum.

The Stress Management and Resiliency Training (SMART) program was successfully implemented in three studies. The SMART program was "…designed to help participants

understand the neuroscience and biology of stress" (Chesak et al., 2015, p.39). From that understanding came five core principles: gratitude, compassion, acceptance, forgiveness, and higher meaning. These principles help participants learn skills to develop intentional attention and reframe life experiences. Werneburg et al. (2018) used the SMART program with 119 healthcare employees and post-12-week resiliency program intervention found "…statistically significant improvement in resiliency, perceived stress, anxiety, quality of life, and health behaviors." (p.45). Using the Connor-Davidson Resilience Scale (CD-RISC), resilience average score increased from 65.3 to 78.5. Perceived stress decreased from an average score of 26.7 to 17.4 in the Perceived Stress Scale (PSS-14). Quality of life items involving confidence to manage stress and feeling well-rested after a typical night of sleep, had the strongest effects post-intervention. Lastly, Chesak (2013) assessed the effects of the SMART program within a nurse residency program. The convenience sample for the intervention group (n=27) revealed a decrease in stress and anxiety. Four and twelve weeks following the SMART program, increase in resilience and mindfulness was clear for the intervention group as well.

Press Ganey (2018a) echoed these strategies when examples of resilience-fortifying approaches were outlined. Meaningful recognition was suggested to drive nurse activation, and interventions should target the specific needs of different nursing segments. Formal resilience training is also recommended for nurses at all levels, not just new nursing graduates. Finally, the enhancement of nurse social support via relationship-building activities and burnout-prevention strategies can be justified as a way of supporting the culture of nurse wellness (Press Ganey, 2018a).

Professional Nursing: Considerations for the New Nurse

Several factors pose challenges in professional nursing practice despite an entry-level nurse having innate levels of resiliency. To begin, for the new nurse, the biotechnology boom has changed the nature of health services. Individuals are living with, not dying from, chronic diseases. By the year 2050, the number of U. S. residents age 65 years and over is projected to be 83.7 million. This is almost double its estimated population of 43.1 million in 2012 (Ortman et al., 2014). Coupled with aging comes more chronic diseases and multiple co-morbidities that complicate treatment and recovery when accessing health care (AACN, 2019, Gaynor, Gattasch, Yorkston, Stewart, & Turner, 2006). Because of this growing trend in patient acuity, it is understandable why workplaces are dynamic and demanding, and thus, potentially much more stressful.

Further, psychological emptiness can arise when the nurse feels unvalued. This feeling may translate as 'stripped down' with an inability to contend with beliefs and emotions, notably compounded when the organization's goals are not congruent with the nurse's personal and/or professional goals. Diminished inner balance results when work demands conflict with personal life difficulties. When faced with new tasks and increasing responsibilities, Delaney (2003) found that anxiety and insecurity caused stress, the most powerful common experience amongst the graduate nurses. Lastly, the real world of nursing is sometimes unlike the expectations that academia portrays. Known as dissonance, this is where practice gaps prove to be frustrating as anxiety and ambiguity loom. Using a phenomenological study, the transition experiences of graduate nurses were investigated and produced 10 theme clusters, including 'Welcome to the Real World' (Delaney, 2003, p.440). This theme draws attention to patient caseloads and time

management as common differences from academic clinical settings, and the imperfections of everyday nursing became a reality.

Considering all the new nurse experiences during this rite of passage, depleted levels of resilience can lead to burnout and premature exit from the nursing profession (Experience Innovation Network, 2016; Royal College of Nursing [RCN] as cited in Jenkins & Germaine, 2018). On the horizon, this could be detrimental as the current turnover rate for bedside nurses in the U. S. is 15.9 percent, with a projected increase in the next decade (NSI, 2020). Since 2015, the average hospital turned over 82 percent of their RN workforce. This equates to a hospital's turnover of their entire RN staff every six years (NSI, 2020).

Turnover intention of the new nurse is not a novel topic. Kovner, Brewer, Fatehi, and Jun (2014) found that about 17.5 percent of new nurses exited his/her first job within one year of starting the job. Brewer, Kovner, Greene, Tukov-Shuser, and Djukic (2012) discovered equivalent results with a turnover statistic of 18.1 percent (newly licensed registered nurses [NLRNs] who had worked at least one month and left the first job within one year of taking it). Brewer et al. (2012) also found that 26 percent of the NLRNs had left the first job within two years of starting it, and 43.4 percent within three years of first hire. Larrabee et al. (2010) found nurses carried a higher intent to stay when they had a diploma or associate degree in nursing (ADN), had more years since completing their basic registered nursing (RN) education, and had been in their current jobs for more than ten years.

The attrition for new nurses, together with the rate of late-career nurse retirement, compounds the global problem of a shortage of nurses (Waddell, Spalding, Navarro, Jancar, & Canizares, 2015). To contend with the dilemma of nursing shortage, it becomes increasingly essential that we address the nurse's transition from student to professional and be supportive

throughout the process. A supportive atmosphere includes special attention to resilience and finding ways to foster it amid inevitable stress and adversity.

Definition of Key Terms

Selected terms related to this project are defined for clarity:

Burnout: A syndrome manifested as emotional exhaustion that leads to inferior performance and an attitude that is divergent from caring (Dyrbye et al., 2017).

Dissonance: The conflicts new graduates experience related to the changing pressures and priorities from the academic to service setting (Delaney, 2003).

Newly licensed nurse (NLN)/Newly graduated nurse (NGN): An individual hired to fill a 0.5 full-time employee position or greater as a first job after graduating from a prelicensure diploma, associate-degree, or baccalaureate nursing program. Additionally, pass the applicable NCLEX-PN® or NCLEX-RN® licensure exam three to nine months prior to the start of the nurse residency program (K. Serr, personal communication, July 1, 2019).

CHI St. Alexius Medical Center Nurse Resident: A nurse graduate of less than six months that has been hired by the facility in a position as a registered nurse (RN) performing direct patient care (K. Serr, personal communication, July 1, 2019).

Career resilience: Dedication to reinvention of self to keep pace with change. Includes belief in continuous learning, management of career, and organizational commitment to success (Waterman, Waterman, & Collard, 1994).

Resiliency: Personal qualities that influence one's ability to experience a resilient outcome; a majority of which pertain to personal attributes (Prince-Embury, Saklofske, & Vesely, 2015).

Transition: Changes in life, health, relationships, and environments that are complex and multidimensional (Meleis, Sawyer, Im, Messias, & Schumacher, 2000). Transition often includes periods of confusion and distress, while leading to a new beginning (Williams, 1999).

Turnover: The process whereby nursing staff leave or transfer within the hospital environment. This definition encompasses voluntary and involuntary, as well as internal and external turnovers (Jones, 1990). As a data metric, nursing turnover is usually expressed as a percentage and follows a simple formula (Hansen, 2011, p. 13):

$$\frac{\text{\# of nurses who leave in a given period of time x 100}}{\text{\# of nurses recruited in a given period of time}} = \text{nursing turnover (\%)}$$

Chapter 4

Methods and Improvement Plan

Methods

Nurses entering the profession need provisions to help ensure success in new roles. The rigors faced by new graduate nurses and the concept of resilience are equally complex. Oftentimes, it is not enough to merely send a new nurse through a facility's standard orientation protocol. Rather, newly graduated nurses should be supported and mentored via a structured residency program. As part of that program, strategies should be included to foster resiliency not only during transition to practice, but ongoing well into one's professional journey.

Setting

In support of this premise, an onboard residency program at CHI St. Alexius Medical Center currently lasts six months. During that time, a cohort of new graduate nurses take part in what is known as the residency education program (REP). This cohort meets collectively once a month while concurrently going through unit-based orientation. During each four-hour monthly session, the residents take part in simulation activities and hear from guest speakers. Guest speakers stand for various areas of the facilities' network, including administration, supportive disciplines, and community-based resources.

Sample

The population of focus for this project was the Fall 2019 cohort of nurse residents (n=24). This cohort's launch day was July 18, 2019 with subsequent session dates of August 1, September 5, October 3, November 7, December 5, and January 2, 2020.

Ethics

Ethical approval was received from the institutional review boards (IRBs) of the investigator's university and participating medical center prior to commencement of the project. Specifically, Request for Determination from the Western University of Health Sciences' (WesternU) IRB (Appendix B) and an affirmation from CHI St. Alexius Medical Center's IRB (CHIRB) (Appendix C). Prior to collecting the data, each nurse resident received information about the project, including the purpose. Data were collated, and anonymity was supported throughout the project as nurse residents identified themselves by the last four digits of their primary phone number. Such identification was included on two surveys, one questionnaire, and one scale. The investigator did not have access to the TRACOM© database and so, was blinded to the names of resident responses. Completion of the TRACOM profile, two surveys, one questionnaire, and one scale (baseline and posttest) by the nurse resident implied consent.

Methodology

Surrounding resilience, each session had a focused topic with a correlating teaching session, activity (group and/or individual), and 'homework' for the residents to complete during the following month. As part of the *Launch Day*, nurse residents were instructed to complete TRACOM's Adaptive Mindset for Resiliency Self-Perception Profile (online version) prior to the first session. This profile provided each resident with a private, individualized interpretation of his/her results in a model of resiliency that consists of nine elements organized into a three-dimensional framework: Filter, Act, and Interact (TRACOM Corporation [TRACOM], 2016). Scores gave the residents a sign about strong, secondary, and underdeveloped sources of resiliency. By way of the session topics, it was predicted that each one, in its unique way, would

foster resilience in the cohort members regardless of spectrum of underdeveloped to strong starting points. A modified training platform developed by (TRACOM, 2016) and used with permission (Appendix D) drove the session topics as follows (Appendix E):

- Launch Day: What is resilience and why is it important with review of the Adaptive Mindset for Resiliency Model;
- Session (strategy) one: CAB/CAR and DRAINING;
- Session (strategy) two: Developing Mindfulness;
- Session (strategy) three: Acting "As If";
- Session (strategy) four: Developing Gratitude;
- Session (strategy) five: Giving;
- Session (strategy) six: Setting Ambitious Goals.

During and after the residency program, the hope was that participants would incorporate professional self-respect and assertiveness, then articulate, and foster individual levels of resilience. A multitude of activities were used to resonate the topics, including simulation, reflective journaling, collaborative/creative/therapeutic learning activities, meditation, games, and role-play (McDonald et al., 2012; Stephens et al., 2017). As part of the training platform, each nurse resident also received a corresponding Resource Guide (TRACOM, 2018) and Concepts Guide (TRACOM, 2015) for their personal journey.

Because this was a pre- and post-test interventional study using in subjects design, data collection was carried out via a mixed-method approach. This approach incorporated both qualitative and quantitative research techniques, supplying a depth and breadth of information especially related to change and improvement (Reavy, 2016). By way of numbers, quantitative data aided in exploring the effects of the program and its feasibility using self-report measures.

Specifically, it is was nonexperimental design because no randomization, control, or manipulation of participants existed. Qualitative data supplied insight from the residents about the program; was it valuable and what parts of it had the greatest influence. This type of evidence was useful in understanding details of an implementation process such as the resiliency training in that it captured the lived experience (Reavy, 2016). Qualitative methods were considered multifaceted and revealing. Considering the complexities of resiliency, this method served as an ideal fit.

Two surveys were integral to the project and had been utilized in the nurse residency program since its inception. Permission to reproduce and use the Casey-Fink Readiness for Practice Survey and Graduate Nurse Experience Survey (Appendix F) was obtained from the authors (K. Casey & R. Fink, personal communication, November 5, 2018). First, the Casey-Fink Readiness for Practice (RFP) Survey© was administered during *Launch Day* (Casey & Fink, 2008). Ten investigator-selected demographic questions from the first section of the survey gathered the characteristics of the nurse residents including age, gender, race, and prior healthcare experience, if applicable. This information was used to supply a descriptive profile of the nurse residents.

Residents' answers to seven questions on the second section of the survey focused on three of the four domains of readiness for practice: Clinical Problem Solving, Professional Identity, and Trials and Tribulations. A list of twenty items on the survey asked for a self-report about level of comfort/confidence in performing key nursing activities using a Likert scale (1 = strongly agree, 2 = disagree, 3 = agree, 4 = strongly agree). Cronbach's alphas for the domains of readiness ranged from .63 to .80. Specifically, Clinical Problem Solving ($\alpha = .80$), Professional Identity ($\alpha = .65$), and Trials and Tribulations ($\alpha = .63$) (Casey et al., 2011).

Residents' feelings of comfort/confidence, hence, readiness to enter the nursing profession, were used as a comparison to post-intervention scores (Appendix G).

The Casey-Fink Graduate Nurse Experience (GNE) Survey (revised)© (Casey & Fink, 2006) was completed by the nurse residents during the final session. This survey offered a comparison to baseline responses to seven questions in the Casey-Fink RFP Survey. Three added investigator-selected questions offered further insight about how the residents feel about responsibilities and workload; communication with clients and their families; and experiencing personal life stress (Appendix H). Ten of the twenty-four questions in the second section of the GNE survey prompted nurse residents to respond using a four-point balanced response format (Strongly Disagree to Strongly Agree). Each question was associated with one of five factors: Support, Patient Safety, Stress, Communication/Leadership or Professional Satisfaction. Reliability for the factors ranged from .71 to .90 with overall internal consistency estimating $\underline{\alpha}$ = .89. Specifically, Support (α = .90), Patient Safety (α = .79), Stress (α = .71), Communication/Leadership (α = .75), and Professional Satisfaction (α = .83). Content validity for the GNE survey was established via review of expert nurse directors and educators in both academic and private hospital settings. The instrument discriminates between nurses with varied amounts of experience during the first year of professional practice (Casey et al., 2004; Fink et al., 2008).

A 10-item investigator-developed End of Study Questionnaire (Appendix I) was integrated into TRACOM's existing "How'd We Do?" Evaluation Sheet (TRACOM, 2016, p. 93). Information was gleaned about resident adherence to the treatment, as well as opinions about the TRACOM resiliency training platform.

A fourth instrument, the Connor-Davidson Resilience Scale (CD-RISC), was used to discern the effectiveness of the resiliency training (Appendix J). The CD-RISC is an assessment tool developed in a research environment with post-traumatic stress disorder (PTSD) clients. The tool has a specific purpose of assessing improvements over and above symptom reduction associated with drug treatment (Prince-Embury et al., 2015). Item choice was guided by five factors: personal competence, trust, tolerance/strengthening effects of stress, acceptance of change, and secure relationships.

The CD-RISC consists of 25 self-rated items rated on a five-point frequency response (0-not true at all; 1-rarely true; 2-sometimes true; 3-often true; 4-true nearly all the time). Instructions are supplied for the participants to rate feelings over the last month. This leads to a total score ranging between 0 and 100; higher scores correspond with greater resilience. The original samples developed/confirmed by the CD-RISC included a general non-clinical group (*N*=577) and four added clinical groups. "For the CD-RISC-25 in the United States general population (n = 577), median score was 82, with Q1, Q2, Q3 and Q4 being 0-73, 74-82, 83-90, 91-100 (Connor & Davidson, 2003). Therefore, for example, a score of 55 would place the subject in the lowest 25% of the general population, and a score of 89 would fall in the 50-75% percentile, of third quartile: 25% would have a higher score than this." (Davidson, 2019, p. 6). The mean (standard deviation) score for the general population studied (*N*=577) was 80.4 (12.8), for women the mean score was 77.1 (16.3), and for men 77.2 (14.2) (P=.63) according to Connor and Davidson (2003). Psychometrics were as follows (Ahern, Kiehl, Sole, & Byers, 2006; Campbell-Sills & Stein, 2007):

- Cronbach alpha .89 for non-clinical group (internal consistency);

- Intraclass correlation coefficient of .87 over a time interval of two weeks or more (test-retest reliability);
- Positive correlation with multiple related measures with ability to distinguish between participants with lesser and greater resilience;
- Convergent validity was present;
- Discriminant validity was not present;
- Scale proves that resilience is modifiable and can improve with treatment.

Summarized data were calculated as frequency percentages for categorical variables. Descriptive statistics (means and standard deviations) for the continuous variables were investigated. Scores for the CD-RISC and answers for the Casey-Fink Survey questions were reported at baseline and/or at the end of the six-month residency education program. Results from the End of Study Questionnaire were reflective of the one-time completion, also at the end of the six-month program. The statistical analyses were done with IBM® SPSS® Statistics Version 24. Permission to reproduce and use the CD-RISC was obtained from the author (J. Davidson, personal communication, May 23, 2019) (Appendix K).

Chapter 5

Analysis and Results

Demographic and survey data were summarized using descriptive statistics. Pre/post resilience (CD-RISC-25) and transition to professional nursing practice (Casey-Fink RFP and GNE Surveys) data were compared using paired samples *t* tests. The sample size available for each analysis differed according to variation in the completeness of data provided by some participants. Therefore, reducing the number of eligible evaluations for some variables.

Participants

Table 2 summarizes characteristics of the nurse residents. Of the initial 24-resident cohort, 20 completed all surveys and attended a majority of the residency program sessions. One resident exited the residency program after session one and three residents failed to attend the sixth (final) session and therefore, did not complete the follow-up surveys. In all cases, data are presented only for those who completed the given survey at both baseline and follow-up, as applicable.

The average age of participants was 25.7 years (range = 20-36 years) and of the 20 nurse residents, 85% were female. Most (56% of those who answered the question) achieved a college grade point average (GPA) of 3.5-4.0. All participants were registered nurses (RNs) with an associate degree (58%) or bachelor's degree (42%) in nursing. Previous healthcare work experience was reported in a variety of roles with experience as a nursing assistant noted by 85% of the group. The achievement of other non-nursing degrees was reported by three of the nurse residents, specifically, degrees in fine arts, anthropology, or informatics.

Table 2

Nurse Resident Characteristics (N = 20)

Characteristic	$\bar{X}$	Range
Age (years)	25.7	20-36

Characteristic	Full Sample	
	n	%
Gender		
Female	17	85
Male	3	15
GPA[a]		
3.5-4.0	10	56
3.0-3.5	7	39
2.5-3.0	1	5
Ethnicity[a]		
White/Caucasian	18	95
African American	1	5
Education[a]		
Associate degree	11	58
Bachelor's degree	8	42
Previous healthcare work experience[b]		
Nursing assistant	17	85
Medical assistant	3	15
EMT	2	10
Nurse intern	2	10
Unit secretary	3	15
Dental technician	1	5
Volunteer	3	15
None	2	10
Other non-nursing degree (if applicable)		
Fine Arts	1	5
Anthropology	1	5
Informatics	1	5

Notes. [a]Reflects the number and percentage of participants who provided answer to this question.

[b]Some participants selected multiple health care work experiences.

Project Questions

Project questions I: What are the levels of participant intervention compliance and adherence rates among nurse residents at a large Midwestern academic medical center who

participate in the resiliency training program? What are the impacts of the resiliency training program?

All nurse residents practiced the strategies associated with the resiliency program while working (Table 3). Mean response was 36-55% of study days.

Table 3

Percentage of Study Days [6 months] Participants Reported Practicing the Strategies Associated with the TRACOM Adaptive Mindset for Resiliency Program while working

Percentage of Study Days	*n* *(20)*	%
0	0	0
1-20%	4	20
21-40%	5	25
41-60%	4	20
61-80%	6	30
81-100%	1	5

Note. Mean response (N = 20) was 36-55% of study days.

Figure 2 denotes a variety of impacts for the nurse residents after receiving the resiliency training. Mean scores indicate that the participants 'agree' that strategies learned decreased their work-related stress and anxiety levels. Residents would also recommend the program to friends and colleagues to help lower their stress and/or anxiety. Finally, care provided to patients, interaction with coworkers, and transition to professional nursing practice were positively impacted by the strategies learned.

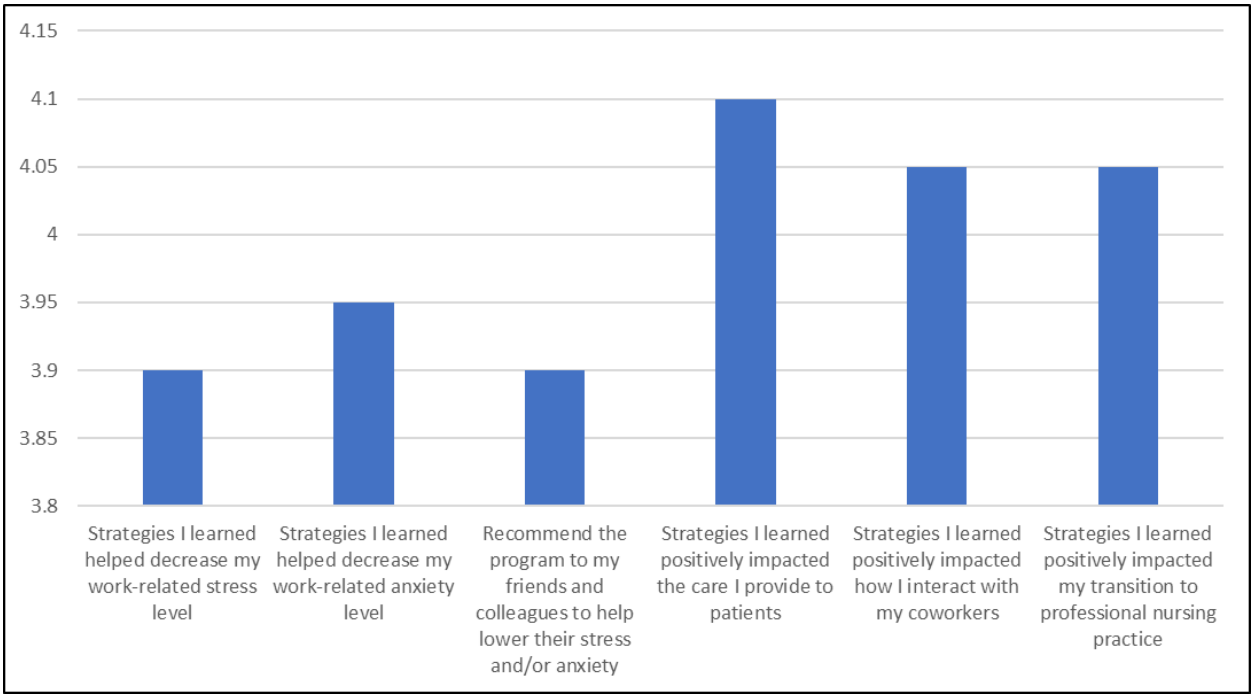

Figure 2. End of Study Questionnaire Mean Scores (N = 20). 1 - strongly disagree, 2 - disagree, 3 - neutral, 4 - agree, 5 - strongly agree

Figure 3 displays the (mean responses) from the End of Study Casey-Fink Survey Results for nurse residents at the end of the program when asked about patient care responsibilities and workload ($\overline{X}$ = 2.85), comfort level when communicating with patients and their families ($\overline{X}$ = 3.25), and experiencing stress in their personal life ($\overline{X}$ = 2.40).

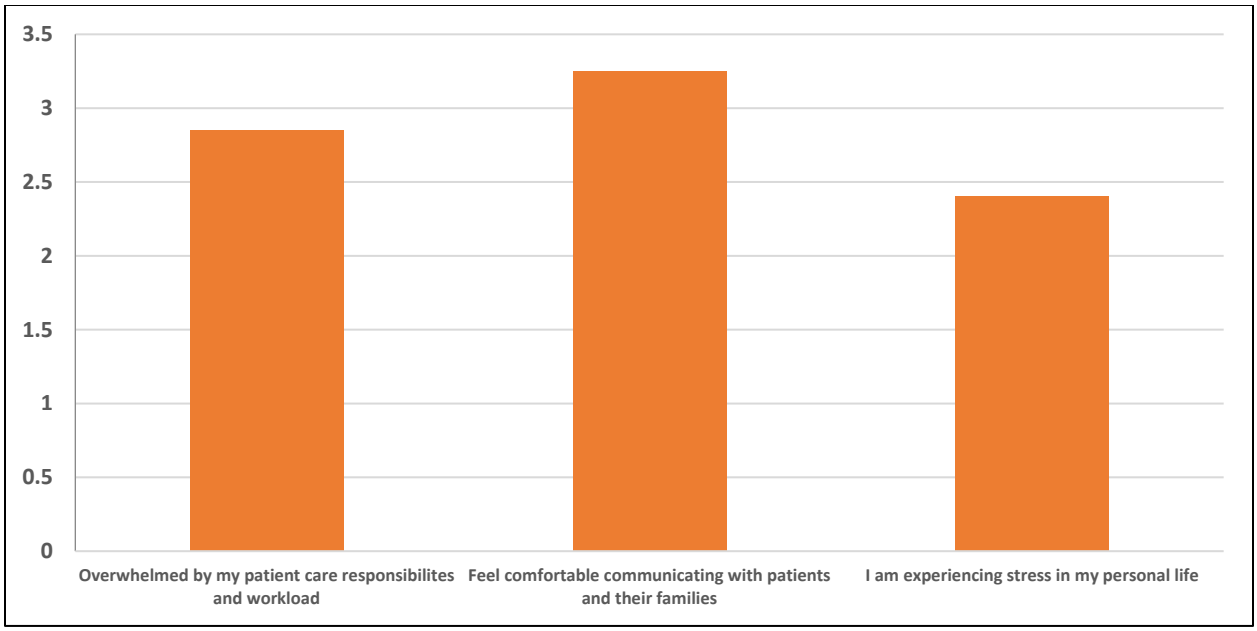

Figure 3. End of Study Casey-Fink Survey Results. Mean responses (N = 20) for three Casey-Fink Graduate Nurse Experience Survey questions after resilience training. 1 - strongly disagree, 2 - disagree, 3 - agree, 4 - strongly agree

Table 4 displays qualitative data. Specifically, quoted responses from project participants about aspects of the program that were appreciated the most as well as general feedback.

Table 4

Quoted Responses from End of Study Questionnaire

Responses
"The resiliency strategies were helpful to me as a new grad nurse because of all the life changes we experience coming out of college."
"I loved all the information provided and tools that we can use in our work day."
"Very informative about new ways to think and react to situations. Will definitely go through these steps again throughout my career as a nurse. Knowing these topics and learning ways to incorporate them as well such as examples and videos, etc."
"Loved it! I feel like TRACOM really addressed important parts of our jobs and personal lives that we normally don't see. Bringing these to life helped me as both a nurse and person to realize the importance and impact of such learning concepts."
"The tips and tricks of how to carry out each step to help reduce stress and anxiety."
"The videos were very helpful. They helped me visualize certain steps/tips."
"Mindfulness. Absolutely gained confidence and felt reassured."
"Helpful tips for day to day working."
"Variety of strategies."
"Great program!"

Note. Reflects select responses from participants who provided answer to questions: What aspects of the program did you appreciate the most? Other feedback?

Project question II: What is the difference in resilience between baseline and post-training among nurse residents at a large Midwestern academic medical center?

Comparisons of baseline measures with post program measures showed an improvement in the mean CD-RISC-25 scores for the 20 nurse residents (Table 5).

Table 5

CD-RISC-25 Pretest/Posttest Scores (N=20)

	$\overline{X}$ *(SD)*	95% CI		Median	Mode	p^b
		LL	*UL*			
Pretest	76.45 (8.72)	72.37	80.53	76.50	75.00[a]	t(19) = -.926, p = .183
Posttest	77.95 (8.08)	74.17	81.73	79.00	80.00	

Note. $\overline{X}$ = mean; *SD*, standard deviation; CI, confidence interval.
[a]Multiple modes exist, the smallest value is shown.
[b]Paired-samples *t* test comparing change from baseline.

Project question III: What is the difference in attitudes about transition to professional nursing practice between baseline and post-training among nurse residents at a large Midwestern academic medical center?

Comparisons of baseline measures with post program measures showed an improvement in the mean responses for the seven Casey-Fink survey questions for 19 of the 20 nurse residents (Table 6).

Table 6

Casey-Fink Surveys Pretest (N = 20)/Posttest (N = 19) Scores

	$\overline{X}$*(SD)*	95% CI		Median	Mode	p^a
		LL	*UL*			
Pretest	21.29 (1.48)	20.60	21.95	21.50	22.00	t(18) = -1.910, p = .072
Posttest	22.37 (2.24)	21.29	23.45	22.00	20.00	

Note. $\overline{X}$ = mean; *SD*, standard deviation; CI, confidence interval.
[a]Paired-samples *t* test comparing change from baseline.

Four of the seven questions showed improvements in mean responses from the nurse residents: communication with physicians, caring for dying patient, delegation to UAP, and opportunities to practice skills/procedures. Three questions: ease in asking for help, difficulty prioritizing, and satisfaction with chosen specialty resulted in slight, unfavorable changes from baseline. See Figure 4.

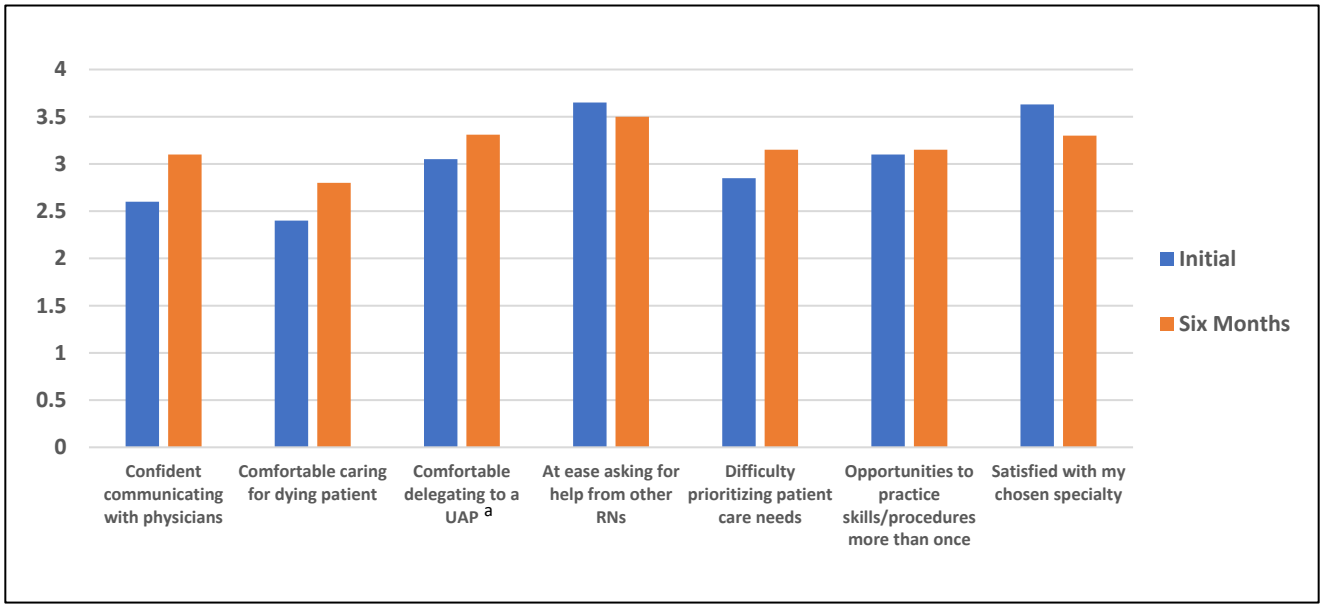

Figure 4. Casey-Fink Survey Results Pre- and Post-Resilience Training. Mean responses (*N*=20) for seven Casey-Fink survey questions at baseline and after resilience training. Casey-Fink Readiness for Practice Survey (baseline) and Casey-Fink Graduate Nurse Experience Survey (post-resilience training). 1 - strongly disagree, 2 - disagree, 3 - agree, 4 - strongly agree

[a]Reflects the number of participants who provided answers to this question (*N*=19).

Chapter 6

Discussion and Implications

Conclusions and Reflections

The purpose of this project was to evaluate the impacts of resiliency training within a nurse residency education program. Newly graduated nurses entering the profession were idyllic recipients for resiliency training as a part of an onboarding process. Augmenting resilience, or the ability to *bounce back* after enduring times of stress, was particularly important for the project's participants as they were about to transition from nursing academia to professional nursing practice.

Discussion

Graduate nurses' transition to professional practice is rigorous and provokes the need for organizations to develop relevant interventional programs. Nurse residency programs (NRPs) serve as an ideal platform to onboard newly hired nurses while assisting in the movement from the classroom to the bedside. Furthermore, incorporating resiliency training into NRPs elicits reciprocal benefits for nurses entering the profession (Chesak, 2013; Chesak et al., 2015; Dyer & McGuinness, 1996; Stephens et al., 2017).

Aim I. The current project was an initial effort to augment the efforts of an existing nurse residency program with strategies to increase resilience. Residents' overall compliance with the resilience-building strategies during the six-month program supports the practicality of the strategies and the dedication in practicing them on the part of the participants. Like previous studies (Chesak, 2013; Chesak et al., 2015), the program had a positive impact on residents' baseline stress and anxiety levels. Communication with coworkers was positively impacted by the resilience training, an outcome that coincides with the work of McAllister and Lowe (2011).

Most nurse residents 'agreed' that the resilience strategies learned assisted in their transition to professional practice. This sentiment concurs with Fink, et al. (2008), Martin and Wilson (2011), and Olson (2009).

Results from the End-of-Study Questionnaire included encouraging comments about the program. Resilience-building strategies were applauded and acknowledged for their ability to assist with life changes when exiting nursing school. Participants noted that the resiliency training was informative and shed light on new ways to think and react to situations. Practical, real-life scenarios and supplemental activities/videos augmented the incorporation of the strategies into residents' professional and personal lives. The key terms *helped* and *helpful* were reoccurring in the responses.

Previous studies have discovered comparable results surrounding the effects of resiliency training programs from a qualitative lens. Chesak et al. (2015) implemented a Stress Management and Resiliency Training (SMART) program within a nurse orientation program. Qualitative evaluations from the SMART program highlighted the outcomes of *positive thinking* and *helping* with personal relationships and difficult patients. Tarantino et al. (2013) implemented a pilot integrative coping and resiliency program for healthcare professionals and noted favorable responses from participants. The ability to cope while at work, tolerance of one's limitations, and having a sense of peace and calm were noted in the findings (Tarantino et al., 2013). Potter et al. (2013) investigated the impacts of a resiliency program on compassion fatigue in oncology nurses. Potter et al. noted positive responses about applying the strategies at home and at work (2013). Participants in the study also reported more feelings of self-reflection after participating in the program (Potter et al., 2013).

Aim II. Despite a small sample size, findings demonstrated improvements among participants' self-reported resilience scores. Comparisons of baseline measures with post-program measures showed an improvement in the aggregate mean CD-RISC-25 scores for the 20 nurse residents. The mean baseline score ($\overline{X}$=76.45) and post-program score ($\overline{X}$=77.95) fall just short of the mean score for the general population, that being 80.4 (Connor & Davidson, 2003). The exceedingly small margin between nurse residents' and the general population's CD-RISC-25 mean scores speaks to the nursing profession's ability to uphold resiliency despite the multitude of practice challenges tackled from day to day.

Aim III. The nursing profession offers complexity and multidimensional considerations for the new nurse to balance. The Casey-Fink Readiness for Practice Survey (session one) and Casey-Fink Graduate Nurse Experience Survey (session six) were pre-existing measurement tools used in the NRP. Seven questions, posed to the nurse residents in both surveys, provided helpful information about the value of resiliency training. Participants showed improvements in mean responses for the areas of communication with physicians, caring for dying patients, delegation to UAP, and opportunities to practice skills/procedures. Enhancements in these four areas relates to a description of resiliency according to McAllister and Lowe (2011); namely, commanding psychomotor skills and cognitive-behavioral skills to perform efficaciously while stressed. The results of this project echo areas of improvement in previous studies. Areas include that of empathy toward patients, augmented teamwork, ability to perform tasks, communicating correctly and in a timely manner, and compassion (Fink et al., 2008; Martin & Wilson, 2011; McAllister & Lowe, 2011; and Olson, 2009).

Implications for Practice

Nurses cannot care for patients adequately if they are not healthy themselves. The American Nurses Association's Code of Ethics for Nurses (2015) reflects on the notion of self-care in Provision Five. The provision reminds nurses to care for themselves just as they care for others. Attention should encompass one's health, safety, integrity, and wholeness of character. Resiliency, as a complex concept, contributes to all four of these elements.

Organizations have an essential role in empowering new nurses and advocating for smooth transition to professional practice. Nurse residency programs have undoubtedly manifested from the realization that a classroom-to-bedside practice gap exists and efforts to assist new nurses are vital. Augmenting these existing NRPs with strategies to increase resiliency may be the solution to a nurse's premature exit from his/her first position in the workplace. More importantly, resiliency could lower the incidence of newly graduated nurses leaving the profession altogether.

Retaining a healthy, resilient nursing workforce is a critical need for healthcare. High stress, increased workloads, and ever-changing technology contribute to the laborious nature of the nursing profession. That said, the imperative trait of resilience supports the retention of nurses and overall health of the nursing population.

Limitations

Challenges arise when evaluating the impacts of the resiliency training. Improvements in self-reported resiliency and attitudes about transition to practice could be attributed to several factors, not exclusively the resiliency training. Those factors include, but not limited to the following: innate defining attributes, support at unit-level (preceptor, fellow staff, supervisor), and durable social supports. Known as *history bias*, factors that are external to an intervention

but concurrent with it, can affect the dependent variable and can compromise the project's internal validity (Polit & Beck, 2017).

Eleven of the 24 nurse residents (45.8%) were former students of the investigator. Along with the transparent nature of the project, the pre-existing relationship between some participants and the investigator supports the possibility of biases. The nurse residents having awareness of their participation in the project may affect the dependent variable, a phenomenon known as the *Hawthorne effect* (Polit & Beck, 2017). The personal nature of resilience creates the potential for *social desirability response bias*. This response bias stems from self-report instruments with participant responses that misrepresent opinions "…in the direction of answers consistent with prevailing social norms." (Polit & Beck, 2017, p.745). Future projects should employ assistants to handle data collection and additional valid measures to reinforce the current findings.

Limitations of this project also include a lack of a control group and small homogenous, convenience sample size. This limits the ability to statistically document the full impact of the training and generalize findings. An additional limitation is that the nurse residents were primarily Caucasian and female sex, limiting its generalizability.

Time demands and personal/work-related scheduling conflicts were barriers for resident attendance at the six residency program sessions. Ten of the 24 nurse residents were present for all six sessions (41.7%). Some participants attended one or more sessions immediately following a night shift on their home unit. Presumably, inhibiting their ability to remain attentive and embrace the content. To accommodate these barriers, the investigator emailed or hand-delivered all session materials to residents not in attendance. Opportunity for follow-up questions, comments, and concerns were also provided to all residents between and during the sessions.

If a larger number of nurse residents had attended all six sessions, the final session in which post-intervention surveys were completed, the results may have been positively influenced. Limitations of the project design temper stout conclusions. Future pilot projects with comparison/control conditions and longer follow-up periods are ideal to determine if improvements are maintained over the longer term and are not just the result of time or non-specific factors.

Conclusion

Six sessions of strategies to improve resiliency incorporated into a nurse residency program resulted in favorable compliance and presumably, practicality. Quantitative data indicate that the nurse resident cohort had lower self-reports of anxiety and stress at the conclusion of the nurse residency program. Participants also reported improved communication skills and overall transition to professional practice was enhanced. Levels of resilience for the study participants manifested as an increase in the aggregate mean scores for the Connor-Davidson Resilience Scale (CD-RISC-25). Lastly, when compared to baseline, nurse residents had improvements in the areas of communication with physicians, caring for dying patient, delegation to UAP, and opportunities to practice skills/procedures at the conclusion of the six-month nurse residency program.

Organizations that employ newly graduated nurses should consider adding resiliency training to existing nurse residency programs. The benefits of such training are robust and expand beyond the individual nurse and well beyond the nurse's first year of practice. For example, healthcare facilities could reap the benefits of resiliency training when provided to seasoned nursing staff and/or other disciplines. From a preparatory perspective, nursing

education programs should consider incorporating resilience-building strategies into their curricula.

Self-Reflection

The American Association of Colleges of Nursing's (AACN's) Essentials of Doctoral Education for Advanced Nursing Practice provides a foundation for transforming health care as a DNP scholar (American Association of Colleges of Nursing [AACN], 2006, October). Foundational competencies are delineated via eight *Essentials*, aiming to assist DNPs in achieving and sustaining the highest level of practice. *Essentials* II, III, and VI were strongly incorporated into this project and provided infrastructure for successful execution.

Systems thinking. Acknowledging that nurses entering the profession are one of many microsystems of health care is an important concept. Macrosystems (hospitals, nursing homes, clinics) and the mega system known as American health care rely on the competency and effectiveness of practicing new nurses. For this project, systems thinking illuminated the impact of new residents and how essential a smooth transition to practice is to the systems. Specifically, the impact on nurse turnover, burnout, patient safety, and nurses' well-being are emphasized. The six-month nurse residency program was a snapshot in time. However, when systems thinking is utilized, the ongoing impacts for the residents, hospital, and healthcare system are recognized.

Clinical scholarship. Inquiry, an intellectual process, led to challenging the existing resident education program. From there, ideas were tested (integrating resilience training) while predicting outcomes (increased resilience and fostering transition to practice). The benefits of resilience for new nurses was evident in the literature. Embracing those findings, then implementing them for this project, and improving outcomes creates the essence of clinical

scholarship. This process led to the outcome of scholarship, a new way of thinking, or a change in awareness about a phenomenon (Zaccagnini & White, 2017).

Interprofessional collaboration. Improved health and health care hinges on interprofessional teams that have a common goal; for example, implementing innovative strategies. Effectiveness of teams is grounded in enhanced communication, reciprocal trust, and leadership (Zaccagnini & White, 2017). This project encompassed key team members: the investigator, NRP director, nurse residents, and hospital administration.

Emotional intelligence (EI) is another valuable attribute of interprofessional leadership. Four critical elements of EI, according to Goleman (2006) as cited in Ponte, Somerville, and Adams (2018, Chapter 1) include: self-awareness, self-management, social awareness, and relationship management. Goleman (2006) further defines social awareness to include primal empathy, attunement, empathetic accuracy, and social cognition. Given the inherent vulnerabilities of new nurses and the emotional intricacies of resiliency, incorporating emotional intelligence (and social awareness) was a vital part of the project.

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Appendix A

Table of Evidence

Reference #	Citation: Primary Author, Date of Publication & Title	Conclusion(s)	Consensus Score	Evidence Type	Population	Intervention(s)	Control/ Comparison	Sample Size	Outcome Measure(s)
Resilience: History and Analysis of the Concept									
1	Gillespie, B. M. (2007). Development of a theoretically derived model of resilience through concept analysis	Antecedents, defining attributes, and consequences of resilience presented	VB	Literature review: Concept analysis using Walker and Avant's approach 1970s-present Psychology, psychiatry, and nursing disciplines	n/a	n/a	n/a	n/a	n/a
2	Earvolino-Ramirez, M. (2007). Resilience: A concept analysis	Antecedents, defining attributes, and consequences of resilience presented	VB	Literature review: Concept analysis using Walker and Avant's approach	n/a	n/a	n/a	n/a	n/a
Strategies to Increase Resilience									

3	Chesak, S. S. (2013). Integration and impact of stress management and resiliency training (SMART) in a nurse residency program: A feasibility study	Improvement in resilience for the intervention group and decline for the comparison group	IIA	Quasi-experimental pilot study	Convenience sample; registered nurses in nurse residency quality improvement project	SMART program	Baseline, 4 and 12 weeks post initial intervention	27	Perceived Stress Scale (PSS) Generalized Anxiety Disorder (GAD-7) Mindful Attention Awareness Scale (MAAS) Connor-Davidson Resilience Scale (CD-RISC)
4	Magtibay, D. L. (2017). Decreasing stress and burnout in nurses: Efficacy of blended learning with stress management and resilience training program	Statistically significant, clinically meaningful decreases in anxiety, stress, and burnout and increases in resilience, happiness, and mindfulness	IIA	Quasi-experimental 1-group baseline to postintervention	Convenience sample of nurses self-selected to take part	SMART program	Baseline and at weeks 8, 12, and 24 after baseline	50	Subjective Happiness Scale Perceived Stress Scale Mindful Attention Awareness Scale Connor-Davidson Resilience Scale Copenhagen Burnout Inventory

5	Bonamer, J. (2019). Self-care strategies for professional development	All subscales of the ProQOL demonstrated improvements Resilience scores were significantly higher at 4 months compared to baseline	IIIB	Single-group pretest-posttest design	Convenience sample: open invitation to all levels of nurses within the organization	Transcendental Meditation (TM) program	Baseline and 4 months post-program	27	Professional Quality of Life Scale (ProQOL) Connor-Davidson Resilience Scale (CD-RISC)
6	Potter, P. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses	Secondary traumatization scores on ProQOL IV significantly decreased compared to baseline IES-R total scores improved significantly overall for all postintervention time points	IIIB	Descriptive pilot study Mixed-model repeated measures analysis	Oncology staff nurses employed in an outpatient infusion center	Resiliency program: educate oncology nurses about compassion fatigue Five weeks, five 90-minute sessions	Baseline, immediately, three months, six months afterwards	13	Maslach Burnout Inventory (MBI)-Human Services Survey ProQOL IV Impact of Event Scale-Revised (IES-R) Nursing Job Satisfaction Scale

7	Werneburg, B. (2018). Improving resiliency in healthcare employees	12-week resiliency program showed statistically significant improvement in resiliency, perceived stress, anxiety, and quality of life, and health behaviors	IIB	Quasi-experimental single-arm, non-randomized intervention	Adult wellness center members of a healthcare institution	12-week resiliency program (SMART)	Baseline, end of 12-week intervention, & 3-months follow-up	119	Connor-Davidson Resilience Scale (CD-RISC) Perceived Stress Scale (PSS) Generalized Anxiety Disorder (GAD-7) Quality of Life (QOL) Current Health Behaviors Questionnaire
8	Chesak, S. S. (2015). Enhancing resilience among new nurses: Feasibility and efficacy of a pilot intervention	Mindfulness and resilience scores increased in intervention group; declined in control group Stress and anxiety scores decreased in intervention group and increased in control group	IA	Randomized controlled pilot study	RNs enrolled in nurse orientation classes	SMART program	Baseline and 12-weeks post-intervention Control group (*n*=21): orientation program lecture	19	Perceived Stress Scale (PSS) Mindful Attention Awareness Scale (MAAS) Generalized Anxiety Disorder (GAD-7) Connor-Davidson Resilience Scale (CD-RISC)

9	Christiansen, M. F. (2017). Improving teamwork and resiliency of burn center nurses through a standardized staff development program	SDD was successful in supporting teamwork and resiliency in this group	VC	Organizational experience: PI project	Nurses working in a burn center	8-hour staff development day (SDD)	n/a	46	Post-intervention evaluation
10	Craigie, M. (2016). A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses	Post-intervention: significant reduction in burnout scores and TNA (trait-negative affect) No significant reduction observed for STS (secondary traumatic stress) and anxiety	IIIB	Non-experimental pilot study	Registered nurses at the study hospital; Australia	MSCR program	Pre-post follow-up within-subjects design	21	Professional Quality of Life Scale version 5 (ProQoL5): levels of compassion satisfaction and CF, burnout, and STS Depression Anxiety Stress Scale (DASS) Spielberger State-Trait Anxiety Inventory form (STAI-Y2) Connor-Davidson Resilience Scale (CD-RISC) Passion for Work Scale (PWS)

11	DuBois, C. A. (2018). Implementing a resilience-promoting education program for new nursing graduates	Reinforces effectiveness or resiliency training for new nursing graduates Cohort scores decreased on negatively worded items Scores increased on positively worded scores	VB	Organizational experience (Quality)	New graduates joining a 1-year NRP at an urban academic medical center in 2017	2 resiliency educational sessions (10 hours total) infused into existing NRP curriculum	Initial and 6-month post training surveys Central tendency measured by mean	33	Casey-Fink (2018) Graduate Nurse Experience Survey: 7 items specific to resilient behaviors from the
12	McDonald, G. (2012). A work-based educational intervention to support the development of personal resilience in nurses and midwives	Workshop suggested growth in participants' knowledge of personal resilience and willingness /ability to monitor and maintain strategies	IIIB	Nonexperimental descriptive case study	Nurses and midwives in Australia	Work-based, monthly workshops aimed to develop, strengthen, and support personal resilience	n/a	14	Post-intervention participant evaluations

13	Tarantino, B. (2013). Qualitative and quantitative evaluation of a pilot integrative coping and resiliency program for healthcare professionals	Mean levels of stress decreased and coping self-efficacy increased between baseline and post-intervention/12-month follow-up	IIIB	Non-experimental pilot study	Six cohorts of health care professionals (>90% nurses or NPs)	8-week Healing Pathways program	Baseline, post-intervention, and 12-month follow-up	82	Perceived Stress Scale (PSS) Coping Self-Efficacy Scale
14	Mealer, M. (2014). Feasibility and acceptability of a resilience training program for intensive care unit nurses	Intervention group < symptoms of depression compared to control group Both groups < PTSD symptoms > resilience scores	IA	Randomized and controlled intervention study	ICU nurses from an academic institution working 20 hours per week	12-week multimodal resilience training program	Control group (*n*=14): no interventions; did track exercise time	13	Connor-Davidson Resilience Scale (CD-RISC) Posttraumatic Diagnostic Scale (PDS) Hospital Anxiety and Depression Scale (HADS) Maslach Burnout Inventory (MBI) Client/Patient Satisfaction Questionnaire 8 (CSQ-8): intervention group only

15	Thomas, L. J. (2018). Promoting resilience among nursing students in clinical education	Suggested strategies: Support Education Reflection	VB	Literature review	n/a	n/a	n/a	n/a	Research Integrative reviews Theoretical model
Personal and Professional Consequences of Resilience									
16	Cope, V. (2016). Why nurses chose to remain in the workforce: Portraits of resilience	Eight themes: -managing self -focusing on the positive -valuing social support -paying it forward -passion for the profession -taking on of challenge -experiencing adversity and growing through it -leadership	IIIB	Qualitative	Registered nurses with > 5 years' experience in Western Australia	n/a	n/a	9	Portraiture to establish themes

17	Gillespie, B. (2007). Resilience in the operating room: Developing and testing of a resilience model	5 variables contributed to resilience in OR nurses: hope*, self-efficacy*, coping*, control and competence (*) strongest variables Age, experience, education, years of employment were not statistically significant contributors	IIIA	Nonexperimental correlational cross-sectional survey design	Accessible Australian OR nurses; members of ACORN association	n/a	n/a	772	Perceived Competence Scale (PCS) Collaboration with Medical Staff (CMSS) and Cohesion Among Nurses (CANS) Peer Support Scale (PSS) Managing Stressful Situations (MSS) scale General Self-Efficacy (GSE) scale Adult Dispositional Hope (ADH) scale Connor-Davidson Resilience Scale (CD-RISC)
18	Gillespie, B. (2009). The influence of personal characteristics on the resilience of operating room nurses: A predictor study	Resilience in OR nurses is not necessarily dependent on personal characteristics: age, years of experience, education	IIIA	Nonexperimental correlational	Accessible Australian OR nurses; members of ACORN association	n/a	n/a	735	Connor-Davidson Resilience Scale (CD-RISC)
19	Hart, P. L. (2014). Resilience in	3 quantitative & 4 qualitative studies:	VB	Methodological review	n/a	n/a	n/a	n/a	Comprehensive search terms: nurse, resilience,

	nurses: An integrative review	-contributing factors -personal characteristics -building strategies							resiliency, and resilient 1990-2011
20	Press Ganey. (2018a). Performance insights: Resilience for a multi-generational nursing workforce	Components of resilience; activation and decompression vary among nurses by shift and generation	IVB	White Paper	Non-manager, full-time RNs working at least 50% of time in direct patient care 145 hospitals	n/a	Generation Shift (day/night)	17,483	8-item tool With 2 separate four-item subscales (decompression, activation) Nursing Excellence module of 2017 Press Ganey Employee Engagement survey
21	Press Ganey. (2018b). Burnout and resilience: A framework for data analysis and a positive path forward	Source of stress and reward influence vulnerability to burnout	IVB	White paper	Clinicians affiliated with Press Ganey institutions	n/a	Clinicians: nurses, physicians Differences by age	18,589 nurses	Press Ganey national data on nurse and physician engagement: Sources of stress and reward for clinicians Engagement and Resilience
22	Shin, H. S. (2018). Clinical nurses' resilience skills for surviving in a	Four discrete types of resilience: -Reality-harmonic	IIIB	Nonexperimental qualitative and quantitative	Clinical nurses in Seoul, Korea	n/a	n/a	32	Q methodology with 38 sorted Q statements, 9-point scale

	hospital setting: A Q-methodology study	-Own will -Professionally oriented -Relation-oriented							
23	Simoni, P. S. (2004). Influence of interpretive styles of stress resiliency on registered nurse empowerment	Empowerment is predictive from skill recognition and deficiency focusing Necessitating was not a significant predictor	IIIB	Predictive nonexperimental	RNs employed for > 3 months on 4 units in 2 hospitals in a mid-Atlantic state	n/a	n/a	142	Thomas and Tymon's Stress Resiliency Profile for Interpretive Styles Spreitzer's 12-Item Questionnaire Psychological Empowerment
24	Skodova, Z. (2018). Type D personality as a predictor of resilience among nursing students	Type D personality is associated with lower levels of resilience Negative affectivity > Social inhibition dimension	IIIB	Nonexperimental Correlational Study	Midwifery and nursing students in an academic setting in Slovakia Females (96.1%) Highly homogenous in age (20.8 years, *SD*=1.4)	n/a	n/a	150	Denollet's Type D Personality Scale (DS14) The Baruth Protective Factors Inventory Antonovsky's Sense of Coherence Questionnaire (SOC)
25	Delgado, C. (2017). Nurses' resilience and the emotional labour of nursing work: An integrative review of	Resilience is a significant intervention that can build nurses' resources and address the effects of	VB	Integrative literature review using Whittemore and Knafl's method	27 peer-reviewed quantitative and qualitative articles: published 2005-2015	n/a	n/a	n/a	n/a

	empirical literature	emotional dissonance in nursing work							
26	Jackson, D. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review	Resilience can be applied to building personal strengths in nurses	VB	Literature review	50 papers from 1996-2006	n/a	n/a	n/a	n/a
27	McAllister, M. (2009). The importance of teaching and learning resilience in the health disciplines: A critical review of the literature	Resilience theory should be part of the educational content and taught in a way that promotes reflection and application	VC	Literature review	n/a	n/a	n/a	n/a	n/a
28	Yu, F. (2019). Personal and work-related factors associated with nurse resilience: A systematic review	Understanding nurse resilience can proactively help nurses identify or prevent potential problems	VB	Systematic review	38 full-text English articles published between 2000 and 2018	n/a	n/a	n/a	n/a
29	Stacey, G. (2019). A scoping review exploring how the concept of	Interventions include teaching of approaches that improve	VB	Critical review of literature	16 articles from past ten years	n/a	n/a	n/a	n/a

	resilience in nursing influences interventions aimed at increasing resilience	knowledge of and response to stress.							
30	Mealer, M. (2012). A qualitative study of resilience and posttraumatic stress disorder in United States ICU nurses	Highly resilient ICU nurses use positive coping skills and psychological characteristics that allow them to work in a stressful ICU environment These characteristics and skills may help prevent PTSD in ICU nurses	IIIB	Qualitative study	Highly resilient nurses working in the ICU for at least 5 years without PTSD ICU nurses with PTSD and not highly resilient	n/a	n/a	27	Semi-structured telephone interviews
31	Brown, R. (2018). The relationship among change fatigue, resilience, and job satisfaction	Job satisfaction among hospital nursing is positively influenced by resilience	IIIA	Descriptive correlational design	Hospital staff nurses	n/a	n/a	521	Change Fatigue Scale Connor-Davidson Resilience Scale McCloskey/Mueller Satisfaction Scale

	of hospital staff nurses								
32	Ren, Y. (2018). Exploratory study on resilience and its influencing factors among hospital nurses in Guangzhou, China	Mean total score of nurses' resilience was significantly lower than that of the general people in China Factors that influence resilience include self-efficacy, coping style, job stress, and educational level	IIIA	Cross-sectional descriptive study	Convenience sample: clinical RNs employed full time for at least one year	n/a	n/a	1356	Connor-Davidson Resilience Scale (CD-RISC) General Self-Efficacy Scale (GSES) Simplified Coping Style Questionnaire (SCSQ) Job Stress Scale of Chinese Nurses
33	Hunsaker, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses	Average to low levels of compassion fatigue and burnout Average to high levels of compassion satisfaction Levels of managerial support were a contributing factor	IIIA	Nonexperimental, descriptive, and predictive study	Emergency nurses throughout the United States	n/a	n/a	278	Demographic Questionnaire Professional Quality of Life Scale (ProQOL 5)

Resiliency: Considerations for the New Nurse									
34	Laschinger, H. (2013). Workplace incivility and new graduate nurses' mental health	Higher levels of resiliency are associated with lower coworker incivility and fewer mental health symptoms Resiliency may protect nurses from negative effects of incivility	IIIB	Nonexperimental Correlational Study	Registry list of new nursing graduates (<12 months) in Ontario	n/a	n/a	272	Surveys sent February 2012 followed by 2nd survey 2 months later Mental Health Inventory (MHI-5) Workplace Incivility Scale (WIS): supervisor, coworker, and physician subscales Psychological Capitol Questionnaire: resiliency subscale
35	Meyer, G. (2018). Resilience and transition to practice in direct entry nursing graduates	Resilience can positively effect transition to practice Building of community and increasing communication increase resilience	IIIC	Nonexperimental Quantitative descriptive pilot study; repeated measures design	Inaugural cohort of Direct Entry Accelerated Master's in Nursing graduates (DEAMSN) from U.S. University	n/a	Relationship over time between transition to practice and resiliency Descriptive statistics, means, SD Correlation analysis and regression analysis	8	Wagnild and Young Resilience Scale (graduation, 12-months) EPSS (graduation, 3,6,12-months) Casey-Fink Graduate Nurse Experience Survey (3,6,12-months)
36	Stephens, T. (2017). Promoting	RN PREP may be a useful addition to	VB	Clinician experience	New registered nurses in the	RN Personal Resilience Enhancement	n/a	n/a	n/a

	resilience in new perioperative nurses	onboarding process			perioperative environment	Plan (RN PREP)			
37	Wahab, S. N. B. A. (2017). Light at the end of the tunnel: New graduate nurses' accounts of resilience: A qualitative study using Photovoice	Four themes appeared to better understand new graduate resilience	IIIC	Descriptive Qualitative	New graduate nurses; BN degree from a Singapore university; working for a year in one university-affiliated hospital in Singapore	n/a	n/a	9	Photovoice to express resilience followed by tape-recorded interviews and thematic analysis
38	Yu, M. (2018). Impact of resilience and job involvement on turnover intention of new graduate nurses using structural equation modeling	Resilience and job involvement functioned as important mediators in the relationships among factors affecting turnover intention	IIIB	Descriptive cross-sectional study Structural equation modelling approach	New graduate nurses working $\leq$ 18 months Registered with eight branches of the KHNA	n/a	n/a	371	Halfer-Graf Job/Work Environment Nursing Satisfaction survey Kim's Emotional Labor tool Pines et al. Burnout Scale Connor-Davidson Resilience Scale Kim's Job Involvement Scale

									Park modified Lawler's Turnover Intention Measurement Tool
39	Chicca, J. (2019). New-to-setting nurse transitions	Explores concept of new-to-setting nurse transition	VB	Literature review: Concept analysis using Walker and Avant's approach 2008 to present	n/a	n/a	n/a	n/a	n/a
40	Pelico, L. H. (2009). What newly licensed registered nurses have to say about their first experience	Five themes: Colliding expectations The need for speed You want too much How dare you? Change is on the horizon	IIIB	Content analysis	Newly licensed registered nurses (NLRNs) Passed NCLEX 6-18 months prior to survey	n/a	n/a	1195	n/a
41	Fink, R. (2008). The graduate nurse experience: Qualitative residency	Conversion of open-ended questions on the Casey-Fink Graduate Nurse Experience Survey to	IIIA	Qualitative analysis	Graduate nurse residents in a postbaccalaureate nurse residency program at 12 academic hospital sites	n/a	n/a	434	Casey-Fink Graduate Nurse Experience Survey

	program outcomes	quantitative questions							
42	Concilio, L. (2019). Newly licensed nurse resiliency and interventions to promote resiliency in the first year of hire: An integrative review	Five themes: NLN's resiliency during first year Contributing factors that promote/hinder resilience Associated outcomes of high/low resilience Methods to build resilience Tools to measure resilience	VB	Integrative review guided by Whittemore and Knafl (5 stages) 16 articles, 2008 to 2017	n/a	n/a	n/a	n/a	n/a
43	Delaney, C. (2003). Walking the fine line: Graduate nurses' transition experiences during orientation	10 themes emerged	IIIC	Phenomenological study Data analyzed using Colaizzi's method	10 female graduate nurses in the hospital's orientation program	n/a	n/a	10	Audiotaped interviews lasting 30-60 minutes

Levels of Evidence (Spruce et al., 2014): Level I=randomized controlled trial (RCT) or experimental study; **Level II**=quasi-experimental (no manipulation of independent variable may have random assignment or control); **Level III**=non-experimental (no manipulation of independent variable; includes descriptive, comparative, and correlation studies; uses secondary data); qualitative (exploratory [e.g., interviews, focus groups) starting point for studies where little research

exists; small samples sizes; results used to design empirical studies); **Level IV**=clinical practice guidelines, consensus or position statement; **Level V**=literature review, expert opinion, case report, community standard, clinician experience, consumer experience, organizational experience: quality improvement, organizational experience: financial; **A**=high quality; **B**=good quality; **C**=low quality/major flaw.

Appendix B

Western University of Health Sciences IRB (Institutional Review Board) Review Letter

Western University
OF HEALTH SCIENCES
The discipline of learning. The art of caring.

Institutional Review Board

(909) 469-5606 · irbsubmission@westernu.edu

DATE:	July 16, 2019
TO:	Rodney Hicks, PhD, MSN, MPA
FROM:	WesternU (Western University of Health Sciences) IRB
PROJECT TITLE:	[1469296-1] Supporting Graduate Nurses' Transition to Practice: Outcomes of a Pilot Resiliency Training Program
REFERENCE #:	19/RFD/034
SUBMISSION TYPE:	New Project
ACTION:	DETERMINATION OF NOT HS RESEARCH
DECISION DATE:	July 16, 2019

Thank you for your submission of New Project materials for this project. The WesternU (Western University of Health Sciences) IRB has determined this project does not meet the definition of human subject research under the purview of the IRB according to federal regulations.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Jennifer Kurtz at 909-469-5606 or jkurtz@westernu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been issued in accordance with all applicable regulations, and a copy is retained within WesternU (Western University of Health Sciences) IRB's records.

Appendix C

Catholic Health Initiatives (CHI) IRB Review Letter

CHI Institute for Research and Innovation

FWA Number: FWA 00019514
OHRP IRB Number: IRB00009715

DATE:	July 23, 2019
TO:	Melanie Schock, MS, RN, CNE
PROJECT TITLE:	[1465580-1] Supporting graduate nurses' transition to practice: Outcomes of a pilot resiliency training program
SUBMISSION TYPE:	New Project
ACTION:	DETERMINATION OF NOT HUMAN SUBJECT RESEARCH
DECISION DATE:	July 23, 2019
REVIEW TYPE:	Administrative Review

Thank you for your submission to the Catholic Health Initiatives Institute for Research and Innovation Institutional Review Board (CHIRB). An individual designated by the CHIRB has determined this project does not meet the criteria for human subject research under the purview of the IRB according to federal regulations.

As defined by federal regulations, research is systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. 45 CFR 46.102(l)

A human subject, as defined by federal regulations, means a living individual about whom an investigator (whether professional or student) conducting research obtains (1) Information or biospecimens through intervention or interaction with the individual and uses, studies, or analyzes the information or biospecimens; or (2) Obtains, uses, studies, analyzes, or generates identifiable private information or identifiable biospecimens. 45 CFR 46.102(e)

The CHIRB determined that this project does not meet the regulatory definition of research involving human subjects as defined by 45 CFR 46.

Please note that any publications regarding this project should not describe this body of work as "research" or as a "study" involving human subjects.

If you do not believe this determination is accurate, or should you wish to amend this project in any way that might impact this determination, please contact the CHIRB.

Please note that it is your responsibility to obtain any additional local institutional or departmental required approvals prior to initiating your project.

The following documents have been reviewed in making this determination:

- CHI - Research Application - CHI - Research Application (UPLOADED: 07/16/2019)
- Confidentiality/Non-Disclosure - TRACOM Confidentiality Agreement-signed.pdf (UPLOADED: 07/6/2019)
- Letter - WesternU NOT HS Research letter.pdf (UPLOADED: 07/17/2019)
- Other - WesternU RFD for Schock DNP Project.doc (UPLOADED: 07/16/2019)
- Protocol - Human Subjects Research Protocol.doc (UPLOADED: 07/16/2019)

If you have any questions at any time, please feel free to contact the CHIRB at 1-844-626-2299 or CHIRB@CatholicHealth.net. Please include your project title and reference number in all correspondence with the CHIRB so that we can best assist you.

Thank you.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Catholic Health Initiatives Institute for Research and Innovation Institutional Review Board (CHIRB)'s records.

Appendix D

TRACOM Confidentiality Agreement

CONFIDENTIALITY AGREEMENT

Melanie Schock ("Recipient") has requested certain information of The TRACOM Corporation ("TRACOM"), which is either non-public, confidential or proprietary in nature, for the following purpose (the "Purpose"):

Recipient will use ADAPTIVE MINDSET FOR RESILIENCY℠ Self-Perception Questionnaire (Online version) in an empirical study. Participants will be graduate nurses in CHI St. Alexius Medical Center's Nurse Residency Program (NRP), Fall 2019 cohort. The purpose of the study is to enhance levels of resiliency in the participants; in turn, positively influencing their transition into professional nursing practice. TRACOM will provide raw data. Recipient will, in turn, provide TRACOM with all raw data from analyses, collected as part of this study, to analyze and use for its own research and marketing purposes, as well as an electronic copy of the final report of the research.

Materials provided by TRACOM are hereinafter referred to as the "Information." TRACOM is willing to provide the Information subject to all terms and conditions set forth in this Confidentiality Agreement (the "Agreement"). In consideration of TRACOM's furnishing Recipient with, and otherwise providing Recipient with access to, Information, Recipient agrees that the Information shall be kept confidential and shall not be disclosed or used by Recipient, other than for the Purpose as described above. Recipient shall not make any copies of the Information except as necessary for the Purpose.

No license is being granted in the Information or any of the materials being provided to Recipient, and all intellectual property rights therein (including but not limited to copyright, trademark and trade secrets) are expressly reserved by TRACOM. All Information or other materials provided by TRACOM that are included in materials prepared by Recipient shall include the following attribution and notice:

"Adaptive Mindset, Adaptive Mindset for Resiliency. The Social Intelligence Company and TRACOM are registered trademarks of the TRACOM Corporation. Resilient Mindset Model and Resilient Mindset are trademarks of The TRACOM Group. No part of the Resilient Mindset Model may be reproduced, stored or transmitted in any form without prior written permission from The TRACOM Group. Copyright 2014, 2015. Used herein with permission.

AGREED, this 19th day of June, 2019

The TRACOM Group

By: 

[Recipient]

By: Melanie Schock

Appendix E

Integration of TRACOM Resiliency Training into Residency Education Program

CHI Nurse Residency Program (NRP): Fall Cohort 2019

Session/Date	Resiliency topic and activities Small groups	REP Topic Large group	Allocated time frame (minutes)
Launch Day/July 18	TRACOM's Resiliency Self-Perception Questionnaire (online, on own time) Introduction to Adaptive Mindset for Resiliency Model and DNP Project	Casey-Fink Readiness for Practice Survey Transition to practice Benner's Novice to Expert Theory	30
Session 1/August 1	Review results of Resiliency Self-Perception Questionnaire (now available) Connor-Davidson Resilience Scale (CD-RISC) (baseline) Distribute TRACOM's Concepts & Resource Guide(s) CAB/CAR	Prioritization of care	25
Session 2/September 5	Mindfulness	Reality shock	30
Session 3/October 3	Act "As If"	Lateral violence/Conflict management	30
Session 4/November 7	Gratitude	Clinical ethics	30
Session 5/December 5	Giving	Nursing burnout	30
Session 6/January 2	End-of-Study Questionnaire Connor-Davidson Resilience Scale (CD-RISC) (posttest) Goal setting	Casey-Fink Graduate Nurse Survey Compassion fatigue	30

Appendix F

Casey-Fink Readiness for Practice and Graduate Nurse Experience Surveys Permission to Use

Casey-Fink Readiness for Practice Survey©

Thank you for your interest in using the *Casey-Fink Readiness for Practice Survey*© instrument.

This survey was developed by two investigators:
Kathy Casey, RN, MSN
Manager, Clinical Education Programs, Exempla Lutheran Medical Center, Wheat Ridge CO
Adjunct Faculty, University of Colorado College of Nursing, Aurora, CO
kathy.casey@sclhs.net

Regina Fink, RN, PhD, AOCN, FAAN
Associate Professor, University of Colorado College of Nursing
Aurora, Colorado
regina.fink@ucdenver.edu

You have been granted permission to use this newly developed survey designed to examine senior nursing students' perceptions of readiness for professional practice. Please note that this tool is copyrighted and should not be changed in any way. Attached is a copy of the instrument for you to use.

We have published a report of the research we conducted in the development of this instrument:

Casey K, **Fink RM**, Jaynes C, Campbell L, Cook P, Wilson V. Readiness for Practice: The Senior Practicum Experience. Journal of Nursing Education. 2011; 50(11):646-652.

The survey consists of three sections. The first section asks for demographic data and information about the student's senior practicum experience: total hours, clinical setting, preceptor, and course content information.

The second section focuses on the student's comfort with both clinical and relational skill performance. Participants are asked to identify the top three skills/procedures they are uncomfortable performing independently. Next, students are asked about their level of confidence in managing multiple patient assignments. Lastly, students are presented with a list of twenty items asking for a self-report about level of comfort/confidence in performing key nursing activities using a Likert scale (1=strongly disagree, 2 = disagree, 3= agree, 4 = strongly agree). This comfort/confidence questionnaire was used to identify the four domains of readiness offered during the senior practicum course in development of readiness for practice.

The third section consists of two open-ended questions asking respondents' reasons for choosing nursing as a profession and what they think could be done to help them feel more prepared to enter nursing practice.

June 2015

Dear Colleague:

Thank you for the inquiry regarding the *Casey-Fink Graduate Nurse Experience Survey*© (revised, 2006) instrument.

The survey was originally developed in the spring of 1999, initially revised in June 2002, and revised a second time in 2006. Since that time, it has been used to survey over 250 nurses in hospital settings in the Denver metropolitan area, and has been further validated by over 10,000 graduate nurse residents participating in the University Health System Consortium/AACN Post Baccalaureate Residency program and elsewhere nationally and internationally. Psychometric analysis has been done using these data and is reported in the summary included with this letter. We have published a report of the research we conducted in the development of this instrument:

Casey K, Fink R, Krugman M, Propst J: The graduate nurse experience. *Journal of Nursing Administration*. 2004; 34(6):303-311.

Fink RM, Krugman ME, Casey K, Goode CM. The Graduate Nurse Experience: Qualitative Residency Program Outcomes. *Journal of Nursing Administration*. 2008;38(7/8):341-348.

We are granting you permission to use this tool to assess the graduate nurse experience in your setting. Please note that this tool is copyrighted and should not be changed in any way. We have enclosed a copy for you to use for reproduction of the instrument.

We hope that our tool will be useful in your efforts to enhance the retention, professional development, and support of graduate nurses in your practice setting. Please email us if you have further questions. We would be interested in being informed as to your results or publications related to the use of our instrument.

Sincerely,

Kathy Casey, RN, MSN
Manager, Clinical Education Programs, Exempla Lutheran Medical Center
Adjunct Faculty, University of Colorado, College of Nursing
kathy.casey@sclhs.net

Regina Fink, RN, PhD, AOCN, FAAN
Associate Professor, University of Colorado College of Nursing
regina.fink@ucdenver.edu

Appendix G

Casey-Fink Readiness for Practice Survey

October, 2008

Dear Nursing Student:

We are conducting a study of nursing students enrolled in a BSN degree program. We are interested in learning about your perception of confidence and readiness to enter the nursing profession.

The purpose of this letter is to ask you to take part in this study. If you agree to participate, please complete the attached survey, Casey-Fink Readiness for Practice Survey ©2008. This survey should take approximately 10-15 minutes to complete. All of your answers will be kept completely confidential. The study results will have no identifying information on it and no individual identities will be used in any reports or publications that may result from this study.

The survey asks for your thoughts on being a nursing student at the end of your BSN program. There is no benefit to you for participating in this study and there will be no reimbursement provided. There will be no financial costs to you as a result of taking part in this study. The survey results may help schools and colleges of nursing better prepare nursing students in the future.

Thank you in advance for assisting with and taking the time to participate in this study.

Sincerely,

Kathy Casey, RN, MSN
Manager, Clinical Education Programs, Exempla Lutheran Medical Center
Adjunct Faculty, University of Colorado, College of Nursing
kathy.casey@sclhs.net

Regina Fink, RN, PhD, AOCN, FAAN
Associate Professor, University of Colorado, College of Nursing
regina.fink@ucdenver.edu

Casey-Fink Readiness for Practice Survey

Please fill in the blank or circle the response that represents your individual profile.

1. **Age: _____ years**

2. **Gender:**
   a. Female
   b. Male

3. **Ethnicity:**
   a. Caucasian (white)
   b. Black
   c. Hispanic
   d. Asian
   e. Native American
   f. Other
   g. I do not wish to include this information

4. **Other non-nursing degree (if applicable): _____**

5. **What previous health care work experience have you had:**
   a. Nursing assistant
   b. Medical assistant
   c. Volunteer
   d. Unit secretary
   e. EMT
   f. EMT - Paramedic
   g. Student Externship
   h. Nurse Intern or Advanced Care Partner
   i. Other: (please specify) _____

6. **Currently employed:**
   a. Yes
   b. No

7. **If yes (question #6), are you employed in a healthcare related position:**
   a. Yes
   b. No

8. **Average # hours worked/week while enrolled in BSN program: #_____**Hours

9. **Please share the major reasons why you chose nursing as a career.**

_____

_____

_____

10. **Current GPA _____**

11. **Type of BSN program enrolled:**
    a. Traditional
    b. Accelerated
    c. Worksite
    d. CHOICE
    e. Other: _____

12. **Are you enrolled in an employer supported scholarship program?**
    a. Yes
    b. No

13. **School of Nursing attended**
    a. CU
    b. REGIS
    c. UNC
    d. Other

14. **Month/year started in BSN program:** _____

15. **Clinical Area of Senior Practicum experience:**
    a. Adult M/S
    b. Adult ICU
    c. Oncology/BMT
    d. OB (L&D, POST PARTUM)
    e. Pediatric M/S
    f. Pediatric ICU
    g. NICU
    h. Mental Health
    i. Ambulatory Care Setting
    j. Rehabilitation
    k. Emergency Department
    l. OR/Perioperative Setting
    m. Other: _____

16. **Was your clinical practicum experience at your current place of employment?**
    a. Yes
    b. No

17. **What setting was your clinical practicum experience located:**
    a. Urban setting
    b. Rural setting

18. **How many clinical hours were you required to complete during your senior practicum?**
    #_____ Hours

19. **How many hours did you spend with your unit charge nurse?**
    #_____Hours

20. **How many primary preceptors did you have during your senior practicum experience?**
    #_____ Preceptors

21. **Were you required to review NCLEX-RN questions during your senior practicum course?**

a. Yes
b. No

22. If yes (question 21) how many questions/week did you review? # _____ Questions

23. What did <u>YOU</u> do to prepare for your senior practicum experience: (may select more than one answer)

a. Practiced skills in learning lab
b. Participated in simulation assignment
c. Developed a care plan
d. Brought medication reference or PDA to clinical
e. Set daily goals with preceptor
f. Met with preceptor prior to start of clinical experience
g. Oriented to facility/tour unit
h. Discussed personal learning needs with clinical faculty
i. Did nothing to prepare
j. Other: _____

List <u>three</u> skills/procedures you are <u>most</u> *uncomfortable performing* independently at this time? *Select from list below.*

1. _____
2. _____
3. _____
4. _____I am independent in all skills listed below

<u>List of skills</u>

Assessment skills
Bladder catheter insertion/irrigation
Blood draw/venipuncture
Blood glucose monitoring device
Central line care (dressing change, blood draws, discontinuing)
Charting/documentation
Chest tube care
EKG/Telemetry monitoring and interpretation
Giving verbal report
Intravenous (IV) medication administration
Intravenous (IV) starts
IV pumps/PCA pump operation
Medication administration
NG tube/Dobhoff care
Pulse oximetry
Responding to an emergency/CODE/changing patient condition
Trach care/suctioning
Wound care/dressing change/wound vac
Other_____

Please answer each of the following questions by placing a mark inside the box/circle:
What is your current level of confidence in managing a patient care assignment on an adult Medical/Surgical unit:

	NOT CONFIDENT				VERY CONFIDENT
	1	2	3	4	5
Caring for 2 patients					
Caring for 3 patients					
Caring for 4 patients					

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
1. I feel confident communicating with physicians.	○	○	○	○
2. I am comfortable communicating with patients from diverse populations.	○	○	○	○
3. I am comfortable delegating tasks to the nursing assistant.	○	○	○	○
4. I have difficulty documenting care in the electronic medical record.	○	○	○	○
5. I have difficulty prioritizing patient care needs.	○	○	○	○
6. My clinical instructor provided feedback about my readiness to assume an RN role.	○	○	○	○
7. I am confident in my ability to problem solve.	○	○	○	○
8. I feel overwhelmed by ethical issues in my patient care responsibilities.	○	○	○	○
9. I have difficulty recognizing a significant change in my patient's condition.	○	○	○	○
10. I have had opportunities to practice skills and procedures more than once.	○	○	○	○
11. I am comfortable asking for help.	○	○	○	○
12. I use current evidence to make clinical decisions.	○	○	○	○
13. I am comfortable communicating and coordinating care with interdisciplinary team members.	○	○	○	○
14. Simulations have helped me feel prepared for clinical practice.	○	○	○	○
15. Writing reflective journals/logs provided insights into my own clinical decision-making skills.	○	○	○	○
16. I feel comfortable knowing what to do for a dying patient.	○	○	○	○
17. I am comfortable taking action to solve problems.	○	○	○	○
18. I feel confident identifying actual or potential safety risks to my patients.	○	○	○	○
19. I am satisfied with choosing nursing as a career.	○	○	○	○
20. I feel ready for the professional nursing role.	○	○	○	○

What could be done to help you feel more prepared to enter the nursing profession?

_____

_____

Thank you for completing this survey!

Appendix H

Casey-Fink Graduate Nurse Experience Survey

Casey-Fink Graduate Nurse Experience Survey (revised)

I. List the top three skills/procedures you are *uncomfortable performing* independently at this time? (please select from the drop down list) list is at the end of this document.

1. _____
2. _____
3. _____
4. _____I am independent in all skills

II. Please answer each of the following questions by placing a mark inside the circles:

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
1. I feel confident communicating with physicians.	○	○	○	○
2. I am comfortable knowing what to do for a dying patient.	○	○	○	○
3. I feel comfortable delegating tasks to the Nursing Assistant.	○	○	○	○
4. I feel at ease asking for help from other RNs on the unit.	○	○	○	○
5. I am having difficulty prioritizing patient care needs.	○	○	○	○
6. I feel my preceptor provides encouragement and feedback about my work.	○	○	○	○
7. I feel staff is available to me during new situations and procedures.	○	○	○	○
8. I feel overwhelmed by my patient care responsibilities and workload.	○	○	○	○
9. I feel supported by the nurses on my unit.	○	○	○	○
10. I have opportunities to practice skills and procedures more than once.	○	○	○	○
11. I feel comfortable communicating with patients and their families.	○	○	○	○

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
12. I am able to complete my patient care assignment on time.	O	O	O	O
13. I feel the expectations of me in this job are realistic.	O	O	O	O
14. I feel prepared to complete my job responsibilities.	O	O	O	O
15. I feel comfortable making suggestions for changes to the nursing plan of care.	O	O	O	O
16. I am having difficulty organizing patient care needs.	O	O	O	O
17. I feel I may harm a patient due to my lack of knowledge and experience.	O	O	O	O
18. There are positive role models for me to observe on my unit.	O	O	O	O
19. My preceptor is helping me to develop confidence in my practice.	O	O	O	O
20. I am supported by my family/friends.	O	O	O	O
21. I am satisfied with my chosen nursing specialty.	O	O	O	O
22. I feel my work is exciting and challenging.	O	O	O	O
23. I feel my manager provides encouragement and feedback about my work.	O	O	O	O
24. I am experiencing stress in my personal life.	O	O	O	O

25. If you chose agree or strongly agree, to #24, please indicate what is causing your stress. (You may circle more than once choice.)

a. Finances
b. Child care
c. Student loans
d. Living situation
e. Personal relationships
f. Job performance
g. Other _____

III. How *satisfied* are you with the following aspects of your job:

	VERY DISSATISFIED	MODERATELY DISSATISFIED	NEITHER SATISFIED NOR DISSATISFIED	MODERATELY SATISFIED	VERY SATISFIED
Salary	O	O	O	O	O
Vacation	O	O	O	O	O
Benefits package	O	O	O	O	O
Hours that you work	O	O	O	O	O
Weekends off per month	O	O	O	O	O
Your amount of responsibility	O	O	O	O	O
Opportunities for career advancement	O	O	O	O	O
Amount of encouragement and feedback	O	O	O	O	O
Opportunity for choosing shifts worked	O	O	O	O	O

IV. Transition (please circle any or all that apply)

1. What difficulties, if any, are you currently experiencing with the transition from the *"student"* role to the *"RN"* role?

a. role expectations (e.g. autonomy, more responsibility, being a preceptor or in charge)
b. lack of confidence (e.g. MD/PT communication skills, delegation, knowledge deficit, critical thinking)
c. workload (e.g. organizing, prioritizing, feeling overwhelmed, ratios, patient acuity)
d. fears (e.g. patient safety)
e. orientation issues (e.g. unit familiarization, learning technology, relationship with multiple preceptors, information overload)

2. What could be done to help you feel more supported or integrated into the unit?

a. improved orientation (e.g. preceptor support and consistency, orientation extension, unit specific skills practice)
b. increased support (e.g. manager, RN, and educator feedback and support, mentorship)
c. unit socialization (e.g. being introduced to staff and MDs, opportunities for staff socialization)
d. improved work environment (e.g. gradual ratio changes, more assistance from unlicensed personnel, involvement in schedule and committee work)

3. What aspects of your work environment are most satisfying?

a. peer support (e.g. belonging, team approach, helpful and friendly staff)
b. patients and families (e.g. making a difference, positive feedback, patient satisfaction, patient interaction)

c. ongoing learning (e.g. preceptors, unit role models, mentorship)
d. professional nursing role (e.g. challenge, benefits, fast pace, critical thinking, empowerment)
e. positive work environment (e.g. good ratios, available resources, great facility, up-to-date technology)

4. What aspects of your work environment are least satisfying?

a. nursing work environment (e.g. unrealistic ratios, tough schedule, futility of care)
b. system (e.g. outdated facilities and equipment, small workspace, charting, paperwork)
c. interpersonal relationships (e.g.gossip, lack of recognition, lack of teamwork, politics)
d. orientation (inconsistent preceptors, lack of feedback)

5. Please share any comments or concerns you have about your residency program:

_____

_____

V. ***Demographics:*** **Circle the response that represents the most accurate description of your individual professional profile.**

1. Age: _____ years

2. Gender:
a. Female
b. Male

3. Ethnicity:
a. Caucasian (white)
b. Black
c. Hispanic
d. Asian
e. Other
f. I do not wish to include this information

4. Area of specialty:
a. Adult Medical/Surgical
b. Adult Critical Care
c. OB/Post Partum
d. NICU
e. Pediatrics
f. Emergency Department
g. Oncology
h. Transplant
i. Rehabilitation
j. OR/PACU
k. Psychiatry
l. Ambulatory Clinic
m. Other: _____

5. **School of Nursing Attended (name, city, state located):** _____

6. **Date of Graduation:** _____

7. **Degree Received:** AD: _____ Diploma: _____ BSN: _____ ND: _____

8. **Other Non-Nursing Degree (if applicable):** _____

9. **Date of Hire** *(as a Graduate Nurse)*: _____

10. **What previous health care work experience have you had:**
    a. Volunteer
    b. Nursing Assistant
    c. Medical Assistant
    d. Unit Secretary
    e. EMT
    f. Student Externship
    g. Other *(please specify)*: _____

11. **Have you functioned as a charge nurse?**
    a. Yes
    b. No

12. **Have you functioned as a preceptor?**
    a. Yes
    b. No

13. **What is your scheduled work pattern?**
    a. Straight days
    b. Straight evenings
    c. Straight nights
    d. Rotating days/evenings
    e. Rotating days/nights
    f. Other *(please specify)*: _____

14. **How long was your unit orientation?**
    a. Still ongoing
    b. ≤ 8 weeks
    c. 9 – 12 weeks
    d. 13 – 16 weeks
    e. 17 - 23 weeks
    f. ≥ 24 weeks

15. **How many *primary* preceptors have you had during your orientation?**
    _____ **number of preceptors**

16. **Today's date:** _____

Drop down list of skills

Assessment skills
Bladder catheter insertion/irrigation
Blood draw/venipuncture
Blood product administration/transfusion
Central line care (dressing change, blood draws, discontinuing)
Charting/documentation
Chest tube care (placement, pleurovac)
Code/Emergency Response
Death/Dying/End-of-Life Care
Nasogastric tube management
ECG/EKG/Telemetry care
Intravenous (IV) medication administration/pumps/PCAs
Intravenous (IV) starts
Medication administration
MD communication
Patient/family communication and teaching
Prioritization/time management
Tracheostomy care
Vent care/management
Wound care/dressing change/wound vac
Unit specific skills _____

Appendix I

End-of-Study Questionnaire

End of Study Questionnaire (Chesak, 2013)

ID # _____

First, please provide feedback on whether the resiliency program helped decrease your work-related stress and/or anxiety.

1. **The strategies I learned helped decrease my work-related *stress* level.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. **The strategies I learned helped decrease my work-related *anxiety* level.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. **What percentage of days over the last 6 months did you practice the strategies associated with the TRACOM® Adaptive Mindset for Resiliency program while working?**

1. 0
2. 1-20%
3. 21-40%
4. 41-60%
5. 61-80%
6. 81-100%

Next, please provide general feedback about the TRACOM® Adaptive Mindset for Resiliency program.

4. I would recommend the program to my friends and colleagues to help lower their stress and/or anxiety.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. The strategies I learned positively impacted the care I provide to patients.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. The strategies I learned positively impacted how I interact with my coworkers.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. The strategies I learned positively impacted my transition to professional nursing practice.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. What aspects of the program did you appreciate the most?

9. What aspects of the program need improvement?

10. Other suggestions or feedback?

Appendix J

CD-RISC-25 Measurement Tool

Connor-Davidson Resilience Scale 25 (CD-RISC-25) ©

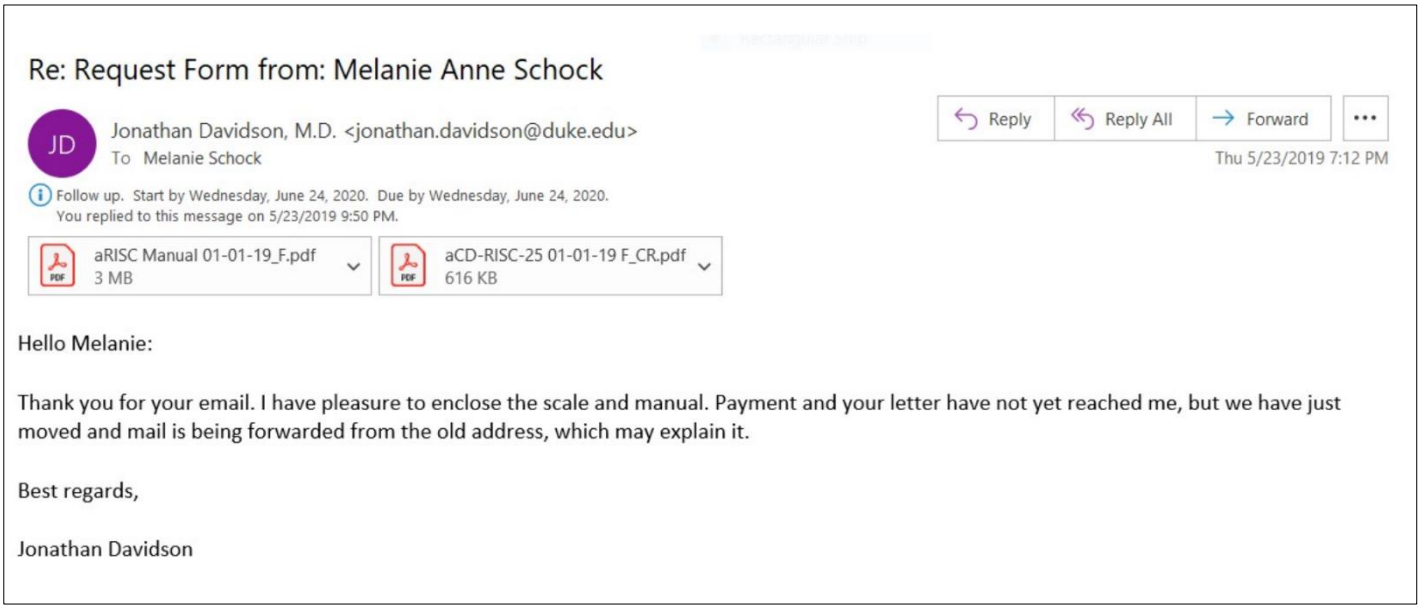
For each item, please mark an "x" in the box below that best indicates how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

		not true at all (0)	rarely true (1)	sometimes true (2)	often true (3)	true nearly all the time (4)
1.	I am able to adapt when changes occur.	☐	☐	☐	☐	☐
2.	I have at least one close and secure relationship that helps me when I am stressed.	☐	☐	☐	☐	☐
3.	When there are no clear solutions to my problems, sometimes fate or God can help.	☐	☐	☐	☐	☐
4.	I can deal with whatever comes my way.	☐	☐	☐	☐	☐
5.	Past successes give me confidence in dealing with new challenges and difficulties.	☐	☐	☐	☐	☐
6.	I try to see the humorous side of things when I am faced with problems.	☐	☐	☐	☐	☐
7.	Having to cope with stress can make me stronger.	☐	☐	☐	☐	☐
8.	I tend to bounce back after illness, injury, or other hardships.	☐	☐	☐	☐	☐
9.	Good or bad, I believe that most things happen for a reason.	☐	☐	☐	☐	☐
10.	I give my best effort no matter what the outcome may be.	☐	☐	☐	☐	☐
11.	I believe I can achieve my goals, even if there are obstacles.	☐	☐	☐	☐	☐
12.	Even when things look hopeless, I don't give up.	☐	☐	☐	☐	☐
13.	During times of stress/crisis, I know where to turn for help.	☐	☐	☐	☐	☐
14.	Under pressure, I stay focused and think clearly.	☐	☐	☐	☐	☐
15.	I prefer to take the lead in solving problems rather than letting others make all the decisions.	☐	☐	☐	☐	☐
16.	I am not easily discouraged by failure.	☐	☐	☐	☐	☐
17.	I think of myself as a strong person when dealing with life's challenges and difficulties.	☐	☐	☐	☐	☐
18.	I can make unpopular or difficult decisions that affect other people, if it is necessary.	☐	☐	☐	☐	☐
19.	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	☐	☐	☐	☐	☐
20.	In dealing with life's problems, sometimes you have to act on a hunch without knowing why.	☐	☐	☐	☐	☐
21.	I have a strong sense of purpose in life.	☐	☐	☐	☐	☐
22.	I feel in control of my life.	☐	☐	☐	☐	☐
23.	I like challenges.	☐	☐	☐	☐	☐
24.	I work to attain my goals no matter what roadblocks I encounter along the way.	☐	☐	☐	☐	☐
25.	I take pride in my achievements.	☐	☐	☐	☐	☐
	Add up your score for each column	0	+ ____	+ ____	+ ____	+ ____
	Add each of the column totals to obtain CD-RISC score	= _____				

01-01-19

Appendix K

Jonathan Davidson Email: CD–RISC–25 Permission to Use



Re: Request Form from: Melanie Anne Schock

JD

Jonathan Davidson, M.D. <jonathan.davidson@duke.edu>
To Melanie Schock

Reply | Reply All | Forward | ...

Thu 5/23/2019 7:12 PM

Follow up. Start by Wednesday, June 24, 2020. Due by Wednesday, June 24, 2020.
You replied to this message on 5/23/2019 9:50 PM.

aRISC Manual 01-01-19_F.pdf
3 MB

aCD-RISC-25 01-01-19 F_CR.pdf
616 KB

Hello Melanie:

Thank you for your email. I have pleasure to enclose the scale and manual. Payment and your letter have not yet reached me, but we have just moved and mail is being forwarded from the old address, which may explain it.

Best regards,

Jonathan Davidson