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## The Resiliency of Nursing Students in an Accelerated Program.

### Abstract

The purpose of the study was to measure the resiliency of nursing students in a post-baccalaureate accelerated nursing program (ANP). ANP programs were created to meet the demands of more qualified nurses because there is a consistent concern about nursing shortages in the United States and globally. The demands of the ANP program require that students be able to respond effectively to the challenges and difficulties that arise during the intense curriculum in order to be successful in the program. With current concerns over nursing shortages and the lack of diversity within the nursing profession, it is important to examine the resiliency of nursing students in ANP programs, specifically non-traditional nursing students. The study compared two groups, traditional and non-traditional nursing students. Traditional nursing students are White females, while non-traditional nursing students are males and females of color. This study used an archival research design based on a longitudinal survey conducted by the nursing school the students attended. The archival information from the school was examined and data were compared over a nine-month period. Nursing students in the accelerated program completed the Connor-Davidson Resiliency Scale (CD-RISC) in September and then again in April. The CD-RISC is a 25-item survey using a Likert scale and has been given in over 200 studies with various populations. The present study found that even though non-traditional students had a lower resiliency at the beginning of the study, their resiliency developed and increased by the end of the study.

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The Resiliency of Nursing Students in an Accelerated Program

By

Judy Wolfe

Submitted in partial fulfillment  
of the requirements for the degree  
Ed.D. in Executive Leadership

Supervised by

Dr. Sandye Johnson

Committee Member

Dr. Byron Hargrove

Ralph C. Wilson, Jr. School of Education

St. John Fisher College

August, 2015

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## **Dedication**

This journey began with one goal: to become the first member in my family to receive a doctoral degree. I soon discovered that having a goal was not enough—you must also be resilient. This doctoral journey has been a marathon. There are times you want to quit, there is the unexpected, but like in a marathon, your training, your perseverance, and the support of those cheering you on pushes you to finish it. This degree would not have been possible without several people who have supported me and cheered me on during the whole process.

First, I want to thank my dissertation committee, Dr. Sandye Johnson and Dr. Byron Hargrove. I could not have asked for a better team of experts who not only supported me in this process but have become mentors. Their relentless belief in me helped me become resilient at times when I questioned my goal. Thanks to them, I am the first member in my family to complete a doctoral degree.

Also, I would like to thank the Columbia University School of Nursing. My coworkers were always there to encourage and support me. The faculty was always willing to listen and answer the endless questions I had about nursing education. The amazing students each day made coming to work a humbling and purposeful experience.

Finally, I want to thank my family. My mother, who came to this country for a better life and with little education, very little English, and humble beginnings, modeled how to be resilient. She always encouraged me to work hard and keep God first, my best friend and first role model. My siblings made sure my children were taken care of so I could go to class and spend endless hours in the library. I want to thank my husband

Jason, the rock that held our family together while I went after this degree; from the open house to the dissertation, you have always been there for our family. This degree is as much yours as it is mine. My children, you are my inspiration. Every step of this journey was for you, Santana and Luke. Each of you are blessings in my life, and each day I am honored to be your mother.

## **Biographical Sketch**

Judy Wolfe began her higher education career in 1995 at Long Island University. She later went on to Columbia University in April 2004 and is currently the Associate Dean of Students Affairs for the School of Nursing. . She attended State University of New York at New Paltz and received a Bachelor's degree in Psychology in 1995. Judy attended Long Island University from 1997 to 1999 in which she was awarded a Master's degree in Counseling and Development. She attended St. John Fisher College from 2013 to 2015. She began her doctoral studies in Executive Leadership under the leadership of her dissertation chair, Dr. Sandye Johnson and committee member, Dr. Byron Hargrove.

## Abstract

The purpose of the study was to measure the resiliency of nursing students in a post-baccalaureate accelerated nursing program (ANP). ANP programs were created to meet the demands of more qualified nurses because there is a consistent concern about nursing shortages in the United States and globally. The demands of the ANP program require that students be able to respond effectively to the challenges and difficulties that arise during the intense curriculum in order to be successful in the program. With current concerns over nursing shortages and the lack of diversity within the nursing profession, it is important to examine the resiliency of nursing students in ANP programs, specifically non-traditional nursing students. The study compared two groups, traditional and non-traditional nursing students. Traditional nursing students are White females, while non-traditional nursing students are males and females of color. This study used an archival research design based on a longitudinal survey conducted by the nursing school the students attended. The archival information from the school was examined and data were compared over a nine-month period. Nursing students in the accelerated program completed the Connor-Davidson Resiliency Scale (CD-RISC) in September and then again in April. The CD-RISC is a 25-item survey using a Likert scale and has been given in over 200 studies with various populations. The present study found that even though non-traditional students had a lower resiliency at the beginning of the study, their resiliency developed and increased by the end of the study.



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## Chapter 1: Introduction

### Introduction

On March 23, 2010, President Barack Obama signed into law the Affordable Care Act (ACA), widely known as Obamacare. This law represented the most significant reform in United States healthcare since Medicaid and Medicare in the 1960s. It allows children to stay on their parent's coverage until the age of 26, covering an estimated 3.1 million young adults. It also provides insurance to children with pre-existing conditions that had been previously denied, affecting 17.6 million children. ACA provides insurance to the 15% of adult Americans who did not previously have insurance, affecting 43.1 million individuals who were previously unable to afford or qualify for health insurance (U.S. Department of Health and Human Services Statistics, 2013).

Is the United States prepared to provide healthcare for these new 63.8 million potential patients? Who is qualified to serve as primary healthcare providers to meet the demands of a more comprehensive and preventive healthcare coverage? Of all health professionals, nurses are the most appropriate and qualified professional. Nurses contribute to every area of healthcare, including private practices, public health agencies, primary care clinics, home healthcare, nursing homes, outpatient surgical centers, nursing school-operated nursing centers, insurance and managed care companies, schools, mental health agencies, hospices, and federal and state agencies (U.S. White House, 2009). McGee (2006) pointed out that nurses interact with individuals who are dealing with

adversity every day and resiliency is part of the job. There is no area of healthcare where nurses are not present. They are central in an interdisciplinary healthcare system.

Unfortunately, the United States is experiencing a nursing shortage. As they discussed in their study, Beauvais, Stewart, DeNisco, and Beauvais (2013) predicted that by 2025 the United States will have a nursing shortage twice as large as the shortfall in the middle 1960s. Compounding the problem is the fact that nursing schools across the country are struggling to expand capacity to meet the rising demand for care, given the national move toward healthcare reform (American Association of Colleges of Nursing [AACN], 2015a).

To meet the demands of the nursing shortage, nursing schools have developed accelerated nursing programs (ANPs) across the country. ANPs are designed to recruit and educate individuals with a Bachelor's degree in a non-nursing area. These individuals are looking to enter the nursing profession. These ANPs provide a quick, smooth option to a nursing degree. These programs offer a degree in nursing (Bachelor's degree or a Master's degree) which offers eligibility for licensure as a registered nurse. In the past 15 years, these accelerated programs have exploded in the United States. In 1990, 31 accelerated programs were available; today, there are over 230 Bachelor's degree-awarding, accredited programs in the United States (American Association of Colleges of Nursing [AACN], 2013).

### **Problem Statement**

Even though ANPs have grown over the years, they still are not supplying the number of nurses needed for today's market. Unfortunately, ethnic diversity among health professions has remained stagnant, specifically in nursing. Graduates of

accelerated programs are not representative of the patient populations they serve. According to the U.S. Census (2014), in 2012, African Americans, Hispanics, and Native Americans accounted for 39% of the population in the country. It is projected that between 2015 and 2060, these populations will steadily increase. In 2011, of all students enrolled in Bachelor's, Master's, and Doctoral nursing programs in the United States, 11% were African American, 4% were Hispanic, and less than 1% were American Indian (American Association of Colleges of Nursing [AACN], 2012). As the United States struggles to find solutions to the current nursing shortage, one strategy to address the emerging crisis continues to surface: nursing schools need to strengthen their efforts to attract and retain non-traditional students in nursing, specifically men and minority students (Institutes of Medicine [IOM], 2010).

Examining the education and training environment in which future nurses learn and develop is critical to efforts to increase the number of healthcare providers who can, and will, address the healthcare needs of our nation (Sullivan Report, in American Association of Colleges of Nursing [AACN], 2015b). In addition to the typical life changes that most undergraduate college students face, nursing students must adapt to and cope with the challenges that are specific to their chosen vocation (Stephens, 2013). Resilience is proposed as a means to prepare our students better to face challenges and adversity—not only survive but also thrive to face additional life events and challenges with hope and optimism for future successful outcomes, improved well-being, and career longevity (Stephens, 2013).

## **Theoretical Rationale**

Many studies have focused on the challenges and adversities that underrepresented students face in academia and the factors that contribute to their failure to complete a health professional or college education. This study examined the resiliency of non-traditional nursing students in accelerated programs. It explored the influences and circumstances around their resiliency to complete their education.

**Defining resilience.** Richardson (2002) stated that resiliency inquiry did not emerge from academic theory, but rather through the phenomenological identification of characteristics of survivors, mostly young people living in high-risk situations. There is much discussion of the difference between resilient and resiliency. Resiliency has been viewed as a trait possessed by few and difficult to learn, and these individuals who possess this ability are resilient. Others maintain resiliency is a normal process of human adaptation that many possess.

Luthar, Cicchetti, and Becker (2000) defined resilience as the successful adaptation or development of competence despite high-risk status or chronic stress. This approach emphasizes the adaptability or skill to adapt during times of adversity and stress. Masten (2001) described resilience as good outcomes in spite of serious threats to adaptation or development. This approach views the positive outcomes of high-risk individuals during continuous challenges or adversities. This definition focuses on the individual rather than the adversity. Similarly, Rutter's (2012) definition of resilience is the ability to bounce back or cope successfully despite substantial adversity. Resiliency is both process-oriented and multidimensional, as there is significant variability in the



underlying factors that promote resiliency based on culture, age, gender, and time (Connor & Davidson, 2003).

Henderson and Milstein's (2002) Resiliency Wheel applied resiliency to an academic setting for both students and faculty. In 1996, they developed a wheel with six elements used in the academic environment to develop resiliency. These elements would reduce risk factors among at-risk students and promote resiliency. The six elements are as follows: a) care and support, including positive regard and encouragement to students from school environment; b) high expectations of students, in which faculty express the belief that students can be successful; c) opportunities to participate, in which student can demonstrate the competence in the subject; d) prosocial bonding, which creates positive relationships among peers; e) clear boundaries and expectations, which is the implementation of policies and rules in the school environment; and f) life skills, which should be developed in the school environment, such as communication, conflict management, decision-making skills (Henderson, 2013; Thomsen, 2002). All these elements contribute to the development of resiliency in students in a school environment (see Appendix A).

**Factors of resilience.** Once defined, researchers began the process of developing frameworks and theories behind resilience. Joseph (1994) concluded that resilience has four major characteristics. The first characteristic is the behavior of resilient people; they tend to be good-natured and gain other people's positive attention. The second characteristic is resilient people's basic belief that individuals have control over what happens to them. The third characteristic is that resilient individuals take a proactive approach to problem solving. In times of adversity, they actively look for a solution and

do not rely on others to help them; moreover, they have the belief that one must help oneself. The fourth characteristic is that resilient people are able to construe their experiences in positive and constructive ways.

Dyer and McGuinness (1996) discussed critical attributes that a person employs during the process of resiliency. A resilient person must “bounce back and go on with life.” The person must have a good sense of self. This does not mean self-esteem but an appreciation and understanding of one’s experiences and one’s path because of those experiences. The resilient person should be determined. The authors described this as “stick-to-it-iveness.” The person should also have a prosocial attitude or an easy temperament. Ultimately, resilient people face challenges and setbacks, but those tests are viewed as learning experiences that help individuals become stronger.

Cavazos et al. (2010) used McMillan and Reed’s (1994) five factors of resiliency to examine the resiliency of Latino/a college students. Their research explored Latinos/as’ educational roles and found that successful students had support and encouragement from parents, intrinsic motivation (participating in activities), an internal locus of control (effort and hard work are important and goals are influenced by individual actions), and high efficacy (belief in one’s ability to complete certain tasks). The factors of resiliency from these previous studies helped to guide the present research.

**Resiliency and adversity.** The process of resiliency cannot occur without some type of adversity. Adversity is the single-most notorious variable that distinguishes resiliency from other social management processes or personality traits (Earvolino-Ramirez, 2007). The time and place of the adversity will determine the process of resiliency the individual will use. Specifically focusing on non-traditional nursing

students guided this research in education or academic resiliency. Students must learn to navigate the admissions and financial aid process, develop relationships with peers and faculty, understand and build networking skills, and meet academic demands. The ability to identify resilient strategies in college students has been the focus of several researchers (Aubrecht, 2012; Ceja, 2004; Huang & Lin, 2012; Owens & Lynch, 2012).

**Adversity faced by nursing students.** Nursing students must also navigate the challenges and adversity of academia while additionally dealing with the adversity that comes with clinical coursework and patient care. Nurses from all domains work with individuals and communities whose daily lives are defined by circumstances of extreme adversity and for whom resiliency is a way of life (McGee, 2006). Emerging horizontal violence (bullying) is emerging in the nursing profession. Nursing students are vulnerable and must deal with interpersonal conflict as they transition to the workforce. Numerous studies have revealed that nursing students are underprepared for interpersonal conflict in the workplace (Pines et al., 2012).

**Adversity faced by non-traditional nursing students.** Added to the challenges faced by all college students, non-traditional nursing students must also deal with the stress of stereotype threat and academic burden. Owens and Lynch (2012) stated that stereotype threat occurs when negative-ability stereotypes increase minority students' cognitive psychological load and reduce their academic efforts, negatively affecting academic performance. Steele's (1998) academic burden, as related by Owens and Lynch, is the psychological stress of the added pressure on minority students to perform well in order to avoid conforming to stereotypes.

## **Statement of Purpose**

The purpose of this study was to examine the resiliency of nursing students in an accelerated program. It measured the resiliency between two groups of students, traditional White females and non-traditional males and women of color. The study used a quantitative approach by administering a resiliency survey previously used with similar participants.

## **Research Questions**

Based on the adversities previously mentioned, it was important to examine the resiliency strategies used by non-traditional nursing students during the 12 months of an accelerated Bachelor's program at an Ivy League university in the northeast United States.

The three research questions that guided this study were:

1. Are there differences in the Connor-Davidson Resiliency Scale (CD-RISC) resiliency scores between non-traditional male and female of color ANP nursing students and traditional White female ANP nursing students in the ANP cohort over time or at either particular point?
2. Is there a relationship between the CD-RISC resiliency scores of ANP undergraduate nursing students and their cumulative GPA?
3. Are the CD-RISC resiliency scores among ANP undergraduate nursing students predictive of their continuation into a graduate-level nursing program?

## **Study Significance**

It was equally important to study the students that enter and successfully complete nursing education in these accelerated programs. It is crucial for nursing education to examine what factors have made these students resilient. Equally vital is the construct of resiliency and if it affects academic success and self-efficacy, and what role it may play in the retention of underrepresented students in nursing education. The study of the positive factors that lead to completion of these programs may also focus attention on continuation into graduate school as nursing education is becoming more comprehensive and complex. Examining these resilient students will provide insight into enrollment and retention.

## **Definitions of Terms**

**Accelerated Bachelor's program:** In nursing education, accelerated Bachelor's in nursing programs were developed for students who already held a Bachelor's degree in a non-nursing major. These programs were created as a quick path for non-traditional students who already had experiences in other areas and were now pursuing a profession in nursing. These programs typically last 12-15 months. At completion, the students are conferred a Bachelor's degree in nursing and are eligible to take the National Council Examination for Registered Nurses (NCLEX) in the particular state in which they wish to work.

**Traditional students:** According to the American Association of Colleges of Nursing (AACN), since 2005, over 70% of nursing students enrolled in generic baccalaureate programs are White and female. Based on the statistical data, White female represents the majority and traditional nurse.

**Non-traditional students:** As defined by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), “underrepresented minorities” are racial and ethnic populations who are underrepresented in the registered nurse population relative to the percentage of that racial or ethnic group in the total population. This would include Black or African American, Hispanic or Latino, American Indian or Alaska Native, and any Asian or Pacific Islander group. According to National Sample Survey of registered nurses, males also are underrepresented in the registered nurse population relative to their number in the total population.

**Prelicensure phase:** This is the time before students are eligible to take the NCLEX exam and before they are able to work as registered nurses. This is the time when students are immersed in both didactic coursework and placed in clinical settings. Didactic coursework is coursework done in a classroom setting on a college campus. Clinical setting coursework is usually located at a healthcare facility, such as a hospital or clinic, under the supervision of a licensed nurse.

**Preceptor:** As described by the AACN, preceptors are competent nurses who agree to work with a nursing student in a one-to-one relationship; an experienced advisor who coaches, serves as role model, and lets a nursing student assume the role of a beginning nurse.

## **Chapter Summary**

The definitions of resiliency suggest that individuals develop a certain consciousness or mental outlook that allows them to form a critical perspective of their surroundings and lived experiences that, in turn, allows them to cope, survive, and in

many cases thrive within those adversities. In 2008, Seligman pioneered a new branch in psychology called “positive psychology.” At the crux of positive psychology is the idea that people can learn to be resilient, if given the skills and encouragement to do so (Aubrecht, 2012). If research can help identify the factors in resilient underrepresented nursing students, this may lead to changes in recruitment strategies, introduce new strategic retention approaches, and increase the diversity of the nursing profession.

The remainder of the dissertation will be made up for four additional chapters. Chapter 2 will focus on the theoretical framework of resiliency and its relationship to nursing students in an accelerated program. Chapter 3 will detail the methodology used in the nursing students including procedure and analysis, while Chapter 4 will present the findings of the study. Chapter 5 will complete the dissertation with limitations and recommendations for future research.

## Chapter 2: Review of the Literature

### Introduction and Purpose

Due to the current nursing shortage, accrediting agencies such as the National League of Nursing (NLN) and the American Association of Colleges of Nursing (AACN) have recommended nursing schools to increase enrollment to meet the needs of today's society. Nursing education has developed over the years. Historically, postsecondary diploma programs were the earliest type of education nurses received. It is unclear where nursing education began, but much of the historical literature points to Yale University as the first school to award a degree in nursing from a university (Weitzel & McCahon, 2008). Currently, a registered nurse can obtain an education in a diploma program, a two-year associate program, a traditional four-year program, or the more recent accelerated program (AACN, 2013).

Accelerated nursing programs (APNs) are emerging in the United States at a faster pace than traditional nursing programs. To meet the demands of the nursing shortage, nursing schools have developed ANPs across the country. The first accelerated program began in 1972 at St. Louis University. In 1990, 31 accelerated programs were available. As of fall 2013, there were 256 Baccalaureate and 71 Master's APNs in the United States (Weitzel & McCahon, 2008). These programs are designed for students who hold a Bachelor's degree in another area but now want to enter the nursing profession. These programs predominantly offer a second Bachelor's degree, and some



programs offer a Master's in nursing with certification as a registered nurse (AACN, 2013).

Students in accelerated programs are considered highly desirable, as compared to traditional college students. Since these students already hold a Bachelor's degree, they are seen as more focused in nursing practice, highly intelligent due to the intense curriculum they are required to take, and more mature (Ball, 2013; Caldwell, Tenofsky, & Nugent, 2010; Davis, DeWitty, & Millett, 2012). Though some of the students in accelerated programs apply immediately after the completion of their first degree, some are considered non-traditional college students who already have spent time in the professional arena, have families, and have been independent from their parents for several years or are caregivers for their parent(s) (Caldwell et al., 2010).

Accelerated programs, while advantageous, are extremely risky to the students and the school. These students have the same initial lack of nursing skill and judgment as traditional students, but also have higher expectations for their own performance and a shorter timeframe in which to acclimate to the clinical setting (Caldwell et al., 2010).

Diversity in these ANPs is essential. In 2010, the IOM came out with a national report, *The Future of Nursing: Leading Change, Advancing Health*, that discussed the importance of a diverse workforce in healthcare, specifically in nursing:

To better meet the current and future health needs of the public and to provide more culturally relevant care, the nursing workforce will need to grow more diverse. And to meet this need, efforts to increase nurses' levels of educational attainment must emphasize increasing the diversity of the student body. This is a crucial concern that needs to be addressed across all levels of nursing education. (p. 207)

There are many reasons why a diverse nurse education is important to the nursing workforce. Diversity is crucial to improving the quality of healthcare in diverse populations. Culturally and ethnically diverse nursing students are more likely to work in underserved and diverse communities. Patients provided with choice are more likely to select nurses who have similar ethnic backgrounds. Nurses who are bilingual, understand cultures, and/or can relate to patients are essential to meeting the health needs of minority communities (Alicea-Plana, 2009; Wong, Seago, Keane, & Grumbach, 2006).

Given the challenges of the nursing shortage and the additional necessity of diversifying enrollment, it is important to examine the experiences of non-traditional nursing students in an accelerated program. It is essential that nursing schools learn what barriers may affect the enrollment, attrition, and retention of all nursing students in accelerated programs, especially non-traditional students who have few numbers in accelerated programs (AACN, 2012). A review of the literature was performed using online databases using key words such as *nursing student*, *minority*, and/or *accelerated*.

### **Review of the Literature**

**Cultural norm conflict.** Nursing students find meeting the demands of school and their family obligations challenging in completing their program. Specifically, students have indicated that conflict in gender roles limits their ability to study. African students in Napierkowski and Pacquiao's (2010) case study indicated they were still expected to perform household chores. Men were not required to help with maintaining the home while the women were in school. Several students indicated that others in the family view less involvement in family chores and responsibility as a lack of respect.

This conflict is common not only with African nursing students but also Latina/o nursing students.

Espinoza's (2010) qualitative study focused on Latinas and the "good daughter" dilemma, the ability to balance both school and home. She focused on the difficulties of balancing the demands of home and school; this normative expectation is problematic for graduate women whose identity and sense of belonging is tied to close family connections, as is the case for the Latinas. Latinas are expected by the culture and the family to place "family first." However, there is a significant contradiction embedded in this cultural template for Latina nursing students with a strong sense of *familismo* who pursue higher education because the time dedicated to school directly competes with time available for family (Alicea-Plana, 2009; Espinoza, 2010).

Nursing students with these cultural norms find that faculty and peers are unable to understand their responsibility to their family. Latina nursing students express a concern over faculty who do not understand the culture. If an immediate family member is ill, Latina nursing students are expected to drop school to tend to the sick (Rivera-Goba & Nieto, 2007). Equally, these students' families are unable to understand the demands of an accelerated program. These feelings of obligations are difficult for faculty to comprehend when they expect students to put nursing education first (Alicea-Plana, 2009).

**Negotiating a different language and teaching learning norms.** English is often a second language for culturally and ethnically diverse nursing students. For many, processing information happens in their own language, and extra time is needed to translate to English. Study materials and assigned readings may need to be reviewed and

read several times before they are understood. This consumes more studying time than their American counterparts, for whom English is their first language. Students have also expressed concerns over being understood or ridiculed because of their accent. Many students thought they were perceived as “slow” or “stupid” by their peers and faculty (Alicea-Plana, 2009; Schoofs, 2012; Villarruel, Canales, & Torres, 2001).

Immigrant students also face challenges of different teaching styles as compared to education in their home country. Because of their size, the amount of material covered, and how they prepare students for state boards, accelerated programs offer multiple-choice exams to assess a student’s knowledge. Students have indicated this is a difference from their native country in which open-ended and essay questions are used to assess exams (Napierkowski & Pacquiao, 2010).

**Stereotypes and academic burden.** Added to the challenges faced by all college students, underrepresented nursing students must also deal with the stress of stereotype threat and academic burden. Owens and Lynch (2012) stated that stereotype threat occurs when negative-ability stereotypes increase minority students’ cognitive-psychological load and reduce their academic efforts, negatively affecting academic performance. Stereotype threat may be either internal, external, or both. Internal threat occurs in students who do not believe they are good enough to achieve their goals. External threat occurs when others perceive these students are not good or smart enough, therefore threatening the students’ confidence and self-efficacy. Non-traditional nursing students often feel isolated or not good enough to attend nursing school. Often, they are treated as if they do not have the knowledge or ability to grasp the materials taught in class by

faculty who are predominantly White older females (Rivera-Goba & Nieto, 2007; Villarruel et al., 2001).

Steele's (1998) academic burden, as related by Owens and Lynch, is the psychological stress of the added pressure on minority students to perform well in order to avoid conforming to stereotypes. Some of these stereotypes include that minority students are not smart enough for academically intense programs, they were accepted because of affirmative action, and/or education is not important. Non-traditional nursing students have the feeling of having to work harder than their White counterparts to prove themselves to faculty (Rivera-Goba & Nieto, 2007). This academic burden is more present in accelerated programs where there are so few underrepresented students and the program is more academically rigorous.

**Lack of diversity in faculty.** The nursing profession shortage trickles to education, where there exists a nursing faculty shortage as well. Nurse faculty at universities are required to be doctoral-prepared to receive full-time professorships or tenure. In 2011, only 24% of the research doctorates awarded were conferred to minority students (AACN, 2013). Predominantly White universities cannot compete for these underrepresented nurses with terminal degrees. Doctoral-prepared minorities are recruited by Historically Black Colleges (HBCs) and more than half of them work outside of academia (Smith, Williams-Jones, Lewis-Trabaeux, & Mitchell, 2012).

The lack of diversity in nursing faculty is also a challenge in nursing education. In 2006, 10.5% of nurse faculty were "minority" or underrepresented (Stanley, Capers, & Berlin, 2007). Nurse faculty serve as role models and advocates. Diverse faculty are more apt to understand cultural norms that may affect retention and cause barriers nursing

students to go outside the institutions to find mentors and role models (Mills-Wisneski, 2005).

Feelings of isolation or exclusion may lead to perceptions and feelings of discrimination and unfair treatment from faculty (Mills-Wisneski, 2005; Tabi, Thornton, Garno, & Rushing, 2013; Villarruel et al., 2001). These perceptions can lead to academic stress and affect the success and retention of students of color.

**Financial concerns.** There are substantial financial barriers for non-traditional students who attend ANPs. The accelerated programs are more costly because more credits have to be taken per year, which means more tuition and fees. Since many of the students in accelerated programs already have a previous degree, they no longer qualify for federal programs (<http://studentaid.ed.gov/sites/default/files/federal-grant-programs.pdf>). They also may no longer qualify for federal undergraduate loans if they maximized their allocation in their first degree.

Other financial barriers are the financial responsibilities these students may already carry. Students may be the primary caregivers or wage earners in their families and cannot afford to quit their jobs (Villarruel et al., 2001). Students who are attending an accelerated program and continue working, even a part-time job, are tired, unable to participate in education activities, and spend crucial study time earning a living. Unfortunately, nursing schools are not monitoring students' financial needs (Loftus & Duty, 2010).

Martinez, Bilges, Shabazz, Miller, and Morote (2012) explored whether working while in school affected resiliency and institutional engagement. These researchers examined the resiliency of low-income first-generation students working on campus,

compared with those working off campus. Students who worked on campus had a lower level of resiliency than students who worked off campus. The findings showed that these students working off campus, although they worked more hours, balanced work obligations, but it was equally important to be successful students.

**Factors to academic success.** While a majority of studies have discussed faculty as a barrier to academic success, many studies considered faculty a factor in nursing students' retention. It can be argued that the relationship between students and faculty is crucial to the retention of students. Students view faculty as a resource and a support equal to their family and peers (Tabi et al., 2013; Weitzel & McCahon, 2008). In a study conducted by Smith et al. (2012), faculty contributed to three of the five factors that lead students to academic success. Those factors included encouragement by faculty, faculty availability for assistance, and faculty use of different teaching methods.

Family support has also shown to be a contributing factor to academic success among underrepresented students (Loftus & Duty, 2010; Villarruel et al., 2001). Family provided emotional support and was viewed as motivators. Family members encouraged students to achieve their goals and "hang in" at times of adversity; they were also seen as role models. Students who were first-generation American viewed the resilience of their parents who came to a country with little or no money, language barriers, and different cultural norms.

Mentoring has also assisted in the success of non-traditional students (Rivera-Goba & Nieto, 2007). The Latina nurses interviewed discussed their mentors' encouragement and often saw them as their motivators. They saw their mentors as having accomplished their goals, which then reflected that they too would be able to accomplish

their own goals. The Latina nurses also discussed their awareness that they themselves were mentors and role models for their family and community. In response, they felt the responsibility to be successful.

### **Topic Analysis**

With all the barriers that affect retention and attrition in non-traditional nursing students, it is critical that the internal tools students use to complete accelerated programs successfully be examined. With all these barriers and the sparse research on non-traditional students in accelerated programs, two theories stand out to help explain the individual influences that affect how the students deal with these barriers and situational adversity.

**The simplicity of resilience.** *Merriam-Webster's Dictionary* defined resilience as “an ability to recover from or adjust easily to misfortune or change. Dyer and McGuiness (1996) discussed critical attributes that a person employs during the process of resiliency. A resilient person must “bounce back and go on with life.” Ultimately, resilient people face challenges and setbacks, but those tests are viewed as learning experiences that help individuals become stronger.

The great surprise of resilience research is the ordinariness of the phenomena. Resilience appears to be a common phenomenon that results in most cases from the operation of basic human adaptational systems. If those systems are protected and in good working order, development is robust even in the face of severe adversity. (Masten, 2001, p. 227)

Resilience enables students from a disadvantaged background to successfully adapt to, mature, and thrive in any situation; it also develops a capacity in them to



rebound from adversity, conflict, and failure (Chen, 2011). As research has shown, while most students face adversity during their academic time, underrepresented students face additional adversities such as isolation, discrimination, and lack of financial resources.

**Significant findings.** The purpose of the research of Cavazos et al. (2010) was to provide insight into how high-achieving Latino/a students develop a sense of resiliency. There is no clear path to academic achievement; some of the students were not high academic achievers in high school. The students were not innately academically prepared; some did not have long-term academic goals. The findings found that students' self-belief that they could accomplish immediate goals was more important than setting a goal.

**Gaps in the literature or recommendations.** There is substantial research on nursing education, but few studies have focused on accelerated programs. Even though there are over 250 accelerated programs in the country, most of the literature has focused on traditional Baccalaureate or Associate degree programs. There are even fewer studies on underrepresented students in these traditional models. The literature has discussed federal or state programs that have provided funding to support underrepresented, culturally diverse, or non-traditional students. However, no research has focused on underrepresented students in ANPs.

Instead, much of the research focuses on outside factors that enable academic success in underrepresented students. Some literature has examined the influence of faculty, family, mentoring, and financial support as variables that affect the success and challenges faced by students. No studies have been completed using tools to measure the resilience of nursing students in accelerated programs.

## Chapter Summary

The low numbers of non-traditional students in accelerated programs and the significance that no research has been done to date requires that nursing educators become aware of the challenges, adversity, and barriers these students face. Even with the additional stressors these students face compared to their White counterparts, many are successful. While awareness is important, it is equally imperative to examine the tools they have to be successful. An examination of their resiliency will enable nurse education to provide resources to support these factors, use these tools as assessment tools for recruitment, and provide further research on these students.

## Chapter 3: Research Design Methodology

### Introduction

The purpose of the study was to identify the resiliency factors of nursing undergraduate students over a nine-month period in an accelerated nursing program (ANP) at a highly selective nursing school in the northeast region of the United States. The demands of ANPs require that students be able to respond effectively to the challenges and adversities that arise in a demanding program with an intense curriculum. These adversities are a rigorous course load, a different learning experience in clinical settings from classroom settings, and unfair treatment from other healthcare professionals and fellow nurses due to their race, gender, or religion. Students in accelerated programs must have the resilience to successfully complete a condensed course load in a short amount of time relative to more traditional nursing programs and remain resilient when facing academic and emotional challenges. Non-traditional nursing students face additional issues including sexism, financial struggles, and lack of understanding from faculty and peers (Alicea-Plana, 2009; Loftus & Duty, 2010). Since non-traditional students are often an underrepresented population in ANPs, the present research included an examination of their resilience as compared to traditional nursing students.

This study examined the resilience of Cohort 2014 nursing undergraduate students in an ANP using a quantitative research approach. Much of the research on the resilience of nurses, college students, and specifically non-traditional college students have used a variety of qualitative approaches such as case studies, interviews, and narratives. The

review of the literature did not locate any quantitative studies specific to nursing students or ANPs with a resilience theoretical framework. Therefore, in order to diversify the research design, the present study provided a more objective approach when compared with past studies that focused on the participant's story (Chen, 2011; Gillespie, Chaboyer, & Wallis, 2009; Loftus & Duty, 2010; McGee, 2006; Rivera-Goba & Nieto, 2007).

There has also been no research on the resilience of non-traditional students (i.e., students of color, men) in an ANP. This research is the first to introduce a quantitative approach to resilience in nursing students and include the additional lens of viewing the resilience of non-traditional students in an accelerated program. This study implemented a quantitative longitudinal research (QLR) design using a cohort group of nursing students. QLR embodies a range of mainly in-depth interview-based studies which involve returning to interviewees to measure and explore changes that occur over time and the processes associated with these changes. The approach is particularly useful if one is studying a process that has a notion of a career of some sort or involves a developmental process (Hollway & Jefferson, 2000). Thus, this study attempted to focus on the development of resilience over a nine-month period among traditional White female nursing students and non-traditional male and female students of color nursing students.

Although the length of the ANP at this higher education institution is 12 months, the students' resiliency was examined over a nine-month period. The Connor-Davidson Resiliency Scale (CD-RISC) resilience survey has already been used in previous studies of nurses and college students (Gerson & Fernandez, 2013; Gillespie et al., 2009). The Office of Student Affairs at the cohort's nursing school asked students to complete the

Connor-Davidson Resiliency Scale (CD-RISC) survey at the beginning of their fall term in September 2014. The CD-RISC has been cited in over 466 studies, translated into several languages, and been used in various adult populations. The school used the CD-RISC because it specifically measures resiliency in an individual. Historically, resiliency has been assessed only once at the beginning of the program. In the current study, the nursing school conducted a resiliency assessment twice with Cohort 2014 nursing undergraduate students, at the beginning of the second semester and midway through the third semester. Between September and April, the nursing students were introduced to the five areas of nursing: adult medical/ surgical area, pediatrics, psychiatry/mental health, obstetrics/gynecology, and community health.

Cohort 2014 nursing undergraduate students in this study were given the Connor-Davidson Resiliency Scale (CD-RISC). Drs. Connor and Davidson developed the CD-RISC based on their experience of treating individuals with posttraumatic stress disorder and their interest in learning more about their resilience. According to the St. John Fisher Lavery Library Database, the CD-RISC has been cited in over 1,324 academic journal articles and thus substantiates its validity. Connor and Davidson showed test-retest reliability for the 25 item CD-RISC ( $r = 0.87$ ) (Connor-Davidson Manual, 2014).

To be eligible to register for the National Council Licensure Examination (NCLEX) exam and practice as nursing professionals in New York State, nursing students must be competent in five population areas: adult medical/surgical area, pediatrics, psychiatry/mental health, obstetrics/gynecology, and community health. In September 2014, the cohort was broken down into five groups of 40-42 undergraduate students who were introduced to specific populations in a clinical setting for the first

time. Each group spent five weeks dedicated to a specialty population in nursing. Students worked with a specific population of patients while taking academic coursework on those specific populations. This intense clinical experience began in September and lasted until the completion of the program in May.

This study reviewed the archival data of the resiliency scores collected in September 2014 CD-RISC and the resiliency scores of the CD-RISC taken in April 2015. The study compared the CD-RISC resiliency scale scores between both administrations (September 2014-April 2015) for the cohorts of nursing undergraduate students to answer the following research questions:

1. Are there differences in the CD-RISC resiliency scores between non-traditional male and female of color ANP nursing students and traditional White female ANP nursing students in the ANP cohort over time or at either particular point?
2. Is there a relationship between the CD-RISC resiliency scores of ANP undergraduate nursing students and their cumulative GPA?
3. Are the CD-RISC resiliency scores among ANP undergraduate nursing students predictive of their continuation into a graduate-level nursing program?

### **Research Context**

The study took place at a highly selective nursing school in the northeast region of the United States. The school offers a variety of programs and degrees from a Bachelor of Science to a Ph.D. in Nursing. The campus is located in an urban setting in a predominantly Latino neighborhood. It has an enrollment of 680 undergraduate and

graduate students and over 78 full-time faculty. The median age of the students is 28.

Table 3.1 is a demographic breakdown of the traditional White female nursing students enrolled at the school. Table 3.2 is the demographic breakdown of non-traditional male and female nursing students enrolled in undergraduate and graduate work at the school.

Table 3.1

*Breakdown of Traditional White Female Nursing Students by Enrollment*

Gender	Race/Ethnicity	Undergraduate	Graduate
F	White	110	235
Total of Undergraduate and Graduate			345

*Note.* Demographic information was supplied by the school as reported on application.

Table 3.2

*Breakdown of Non-traditional Male and Female of Color Nursing Students by Enrollment*

Gender	Race/Ethnicity	Undergraduate	Graduate
M	All	23	45
F	Asian	41	93
	Hispanic	15	34
	Black/African American	2	29
	Native Amer/Pac Isl	2	17
Total		83	218

The median age range of the faculty was 40-49 years of age. There were 68 female faculty and 10 male faculty. Faculty breakdown in terms of racial/ethnic groups was as follows: 74% White, 10% Asian, 8% Hispanic, and 5% Black.

The Cohort 2014 nursing undergraduate students in the study were newly enrolled in an accelerated Bachelor's program cohort. The ANP students all had a previous Bachelor's degree in a non-nursing area to apply to the accelerated program. Students in the accelerated program may have articulated into a graduate Master's program prior to graduating from the Bachelor's program in May. As per data provided by the school, 70% of the undergraduate class articulated in the graduate Master's in Nursing program immediately after the undergraduate degree was completed. The June 2014 entering ANP class had 202 students. The ANP students must have a previous Bachelor's degree in a non-nursing area to apply to the accelerated program.

### **Research Participants**

The 2014 Cohort of 202 students came from various cities across the United States. One-third of the class was from the east coast, and one-third of class was from the west coast, predominantly California; the remaining third came from midwestern and southern states. There was a small percent of the cohort from outside the United States. Student breakdown in terms of racial/ethnic groups was as follows: 64% White, 24% Asian, 8% Hispanic, 2% Black, and 11% males. Student breakdown in terms of gender was 89% female and 11% males. Displayed in Table 3.3 are frequency and percent statistics of the gender and ethnicity of students who participated in the study. Of the total 202 students in the ANP program, 156 participated in the study and completed both the pretest and posttest CD-RISC. Forty-six students either did not complete one of the tests



or did not participate at all in the study. Their information was not added to the study. Of the 46 students who were not included in the study, it is important to note there were 25 traditional White female nursing students and 21 non-traditional males and female of color nursing students who did not participate in this study.

Table 3.3

*Frequency and Percent Statistics of Students' Gender and Ethnicity in Study*

Demographic	Frequency ( <i>n</i> )	Percent (%)
Gender		
Female	141	90.4
Male	15	9.6
Total	156	100.0
Ethnicity		
Asian	37	23.7
Black/African American	1	0.6
Hispanic	14	9.0
Pacific Islander	1	0.6
White	98	62.8
Unknown	5	3.2
Total	156	100.0

*Note.* Information was supplied by the nursing school.

Table 3.4 shows the breakdown of the students who participated in the study based on the two groups of traditional White female nursing students and non-traditional male and female of color nursing students.

Table 3.4

*Descriptive Statistics of Student Groups Based on the Study's Definitions*

Group	Gender	Race Ethnicity	Frequency
Traditional	F	W	86
Total			86
Non-traditional	M	All	15
	F	Asian	36
		Black/African American	1
		Hispanic	13
		Unknown	5
Total			70

**Data Collection Procedure**

The nursing school disseminated the CD-RISC to the students during the first week of classes in September. The study took place during a town meeting which is held every Friday and requires mandatory attendance of students. The town meeting provides the cohort with program announcements, a question-and-answer period, and program events and policy changes or implementation. The students were allocated 45 minutes to complete the CD-RISC. The program director explained the study, and the survey was administered by two faculty of the program and several staff members from the ANP department and the Office of Student Affairs.

The location and setting remained the same for the final stage of the study in April. Students were asked to retake the CD-RISC in April during the last town meeting

of the program. They were again allocated 45 minutes to complete the survey. The school of nursing faculty and staff administered the final survey.

The 2014 cohort was provided a hard-copy packet in the first study that included a consent form, a demographic description form, and the CD-RISC survey. The demographic description form asked for their age, gender, race, ethnicity, and university ID number. Students were informed that their participation was voluntary. Moreover, they were instructed during the first survey that participation included a final survey that would be administered at the end of clinical rotations during the final town meeting. They were informed they needed to provide their university identification number in both studies; the ID number was used solely for the purpose of coding responses for comparison analyses of the two possible CD-RISC surveys. Students who did not wish to participate could submit a blank survey. A pilot had been conducted with graduate students to determine the time needed to complete the survey, which turned out to be approximately 15-20 minutes.

The researcher collected the data at the end of the class and evaluated the data using the Statistical Package for Social Science (SPSS). Completed surveys were stored in a locked file cabinet and data files were stored in a single-access encrypted and password-protected computer. The data files collected were the academic information that was analyzed for the study. The nursing school provided a report at the end of each term with each student's university identification, cumulative GPA, and academic status. Academic status provides information on whether the student was placed on academic probation during the program and during which term. It also provides information on whether a student was academically withdrawn or took a leave of absence from the

program during the study. The data were analyzed using inferential statistics. The answers on the survey were collected and entered into SPSS. Only the data from students who completed the CD-RISC both in the beginning and ending phases were used in this study. Students who only took the survey once or handed in a blank survey were not included in this study.

### **Instrument Used in Data Collection**

The Connor-Davidson Resiliency Scale (CD-RISC) is a 25-item self-report survey designed to measure resiliency. Respondents use a 5-point Likert scale ranging from 0 (not true at all) to 4 (true nearly all the time) to address each of the 25 statements (see Appendix B). Two sample statements are “I am able to adapt when changes occur” and “I think of myself as a strong person when dealing with life’s challenges and difficulties.” Total raw scores range from 0-100; the higher the score on the survey, the higher the resilience rating. The CD-RISC survey includes a manual with general scoring directions and a brief explanation of each item. The CD-RISC also has briefer versions of 10-item and 2-item scales. This study utilized the complete survey of 25 items, which has been administered in and outside of the United States, translated into several languages, and used with various cultural populations.

According to the CD-RISC manual, the scale was calculated and interpreted by Flesch Reading Ease. It can easily be understood by 12-year-olds and should therefore easily be understood by college students at an Ivy League institution. The survey was designed as a self-rating scale on which students can read and answer each question, then interpret each question and provide their own answer from 0-4. The questions are not explained. Connor and Davidson do not recommend that the survey be scored in

subscales because it was found that the mean scores vary by setting. According to the manual, the general population in the United States has a mean score of 80.7 (Connor-Davidson Manual, 2014).

Ethnicity was not a predominant factor in previous studies of the CD-RISC, but it was a factor in this study based on the definition of non-traditional students. As seen in Tables 3.1 and 3.2, there was a substantially lower number of non-traditional students in the ANP program. It was important that this study took a specific targeted view of the resilience of these students and examine how this would reflect in their retention.

Validity with similar populations can be found for CD-RISC. According to the Connor-Davidson CD-RISC manual, Elizondo-Omana et al. (2007) found a significant correlation between anatomy test scores and resiliency rating ( $r = 0.55$ ,  $p < 0.05$ ). In a national survey of nurses, Mealer, Jones, and Moss (2012) found higher resilience was associated with lower rates of Posttraumatic Stress Disorder and professional burnout. Connor and Davidson showed test-retest reliability for the 25-item CD-RISC ( $r = 0.87$ ) (Connor-Davidson Manual, 2014).

### **Procedure for Data Collection and Analysis**

The research examined the resiliency between non-traditional and traditional students in an ANP. The school supplied the researcher with the resiliency scores of the ANP students administered during the pretest and posttest. The school additionally supplied the demographic information of the ANP students, their cumulative grade point average (GPA), and their articulation agreement in their graduate program.

The researcher used SPSS to analyze the data for all three research questions. For demographic, resiliency scores, and GPA mean, standard deviation was applied. Additionally, profile analysis, regression, and logistic regression were used in the descriptive analysis.

## Chapter 4: Results

### Research Questions

As mentioned earlier, with the challenges of the nursing shortage and the additional necessity to diversify enrollment, it is important to examine the resiliency of non-traditional (i.e., males, females of color) and traditional White female nursing students in an accelerated program. It is important that nursing schools learn what barriers may affect the enrollment, attrition, and retention of all nursing students in accelerated programs, especially non-traditional students who have few numbers in accelerated programs. This study reviewed the archival data available in comparison to the following research questions:

1. (RQ1) Are there differences in the CD-RISC resiliency scores between non-traditional male and female of color ANP nursing students and traditional White female ANP nursing students in the ANP cohort over time or at either particular point?
2. (RQ2) Is there a relationship between the CD-RISC resiliency scores of ANP undergraduate nursing students and their cumulative GPA?
3. (RQ3) Are the CD-RISC resiliency scores among ANP undergraduate nursing students predictive of their continuation into a graduate-level nursing program?

## Data Analysis and Findings

Inferential statistics were used to draw conclusions from the sample tested. The researcher used the Statistical Package for the Social Sciences (SPSS) to code and tabulate scores collected from the survey and provide summarized values where applicable, including the mean, central tendency, variance, and standard deviation. Profile analysis, regression, and logistic regression analyses were used to evaluate the three research questions. Profile analysis is commonly used in research comparisons of the same dependent variables between groups over several time points (<http://userwww.sfsu.edu/efc/classes/biol710/manova/Profile-Analysis.pdf>). Research Question 1 examined the resiliency scores of the CD-RISC between traditional White female nursing students and non-traditional male and female of color nursing students over a period of nine months. Regression analysis is used when examining the relations between two variables. In this study, Research Question 2 examined the relationship between the resiliency scores of ANP students and their GPA. Logistic regression allows researchers to predict the outcome between variables. Research Question 3 tried to determine if graduate programs could be predicted based on the students' CD-RISC resiliency scores and their articulation into the graduate program.

Prior to analyzing the research questions, the researcher undertook data screening to ensure that the variables of interest met appropriate statistical assumptions. Thus, the following analyses were assessed using an analytic strategy in that the variables were first evaluated for missing data, univariate outliers, normality, linearity, homogeneity of variance/homoscedasticity, and homogeneity of variance-covariance matrices. Finally,



profile analysis, regression, and logistic regression analyses were run to determine if any relationships existed between the variables of interest (see Table 4.1).

Table 4.1

*Variables and Statistical Tests Used to Evaluate Research*

Research Question	Dependent Variable	Independent Variable	Analysis
RQ1	Resiliency Scores	Student Type	Profile Analysis
RQ2	GPA	Resiliency Scores	Regression
RQ3	Graduate Program	Resiliency Scores	Logistic Regression

**Demographics**

Data were collected from a sample of 202 nursing ANP students. However, only 156 students completed both resiliency tests (pretest and posttest) which were used to evaluate Research Questions 1-3. Specifically, 90% of the students were female (n = 141) and the remaining 10% were male (n = 15). The majority of students were White (62.8%, n = 98), 37 were Asian (23.7%), one was Black/African American (0.6%), 14 were Hispanic (9.0%), and 5 did not provide their ethnicity (3.2%). Furthermore, students' age ranged between 22 and 48 years old, with an average age of 26.8 years old (SD = 4.08).

**Analysis of Research Question 1**

Research Question 1 was evaluated using two independent-sample t-tests and a profile analysis to determine if any significant differences in resiliency scores existed between non-traditional students and traditional nursing students in the ANP cohort. Specifically, t-tests were used to determine if any significant differences existed at each

particular testing period (pretest and posttest). Profile analysis was used to determine if any significant differences existed over time.

The dependent variables were students' resiliency pretest and posttest scores as measured by 25 items on the CD-RISC. Response parameters were measured on a 5-point Likert-type scale where 0 = not true at all and 4 = true nearly all the time. Composite scores were calculated for both pretests and posttests by summing case scores across the 25-survey items, resulting in a possible range of scores between 0 and 100. That is, higher scores indicated higher levels of resiliency. Composite scores were used as the dependent variables for Research Question 1.

The independent variable for Research Question 1 was student type. That is, students were placed into two groups including traditional students and non-traditional students. Students were classified as either traditional or non-traditional students using the criteria given by the AACN and the U.S. Health Resources and Services Administration (HRSA). That is, traditional students were defined as White female nursing students ( $n = 86$ ) and non-traditional students included all other combinations of gender and ethnicity ( $n = 70$ ).

**Data cleaning.** Data were collected from a valid sample of 156 nursing students. Before the assumptions were assessed, the data were screened for missing data and univariate outliers. Missing data were investigated using frequency counts and no cases were found. The data were screened for univariate outliers by transforming raw scores to z-scores and comparing z-scores to a critical value of  $\pm 3.29$ ,  $p < .001$  (Tabachnick & Fidell, 2007). Z-scores that exceed this critical value are more than three standard deviations away from the mean and thus represent outliers. The distributions were

evaluated and one case with a univariate outlier was found and removed from the analysis. Thus, 156 responses from valid students were received and 155 were evaluated by the profile analysis for Research Question 1 ( $n = 155$ ). Descriptive statistics of students' resiliency pretest and posttest scores are displayed in Table 4.2 by student groups.

Table 4.2

*Descriptive Statistics of Students' Resiliency Pretest and Posttest Scores by Student Groups*

Variable	$n$	Min	Max	Mean	Standard Deviation
Pretest					
Traditional student	85	54	98	79.20	10.04
Non-traditional student	70	52	100	75.09	9.50
Posttest					
Traditional student	85	58	100	80.38	9.92
Non-traditional student	70	45	100	78.21	11.58

*Note.* Total  $N = 155$ .

**Normality.** Before the research questions were analyzed, basic parametric assumptions were assessed. That is, for the dependent variables (resiliency pretest and posttest), assumptions of normality and homogeneity of variance were tested. To test if the distributions were normally distributed, the skew and kurtosis coefficients were divided by the skew/kurtosis standard errors, resulting in z-skew/z-kurtosis coefficients, a technique recommended by Tabachnick and Fidell (2007). Specifically, z-skew/z-kurtosis

coefficients exceeding the critical range between -3.29 and +3.29 ( $p < .001$ ) may indicate non-normality. Thus, based on the evaluation of the z-skew/z-kurtosis coefficients, no distributions exceeded the critical range. Therefore, the assumption of normality was not violated and the distributions were assumed to be normally distribute. Skewness and kurtosis statistics of students' resiliency pretest and posttest scores are displayed in Table 4.3 by student types.

Table 4.3

*Skewness and Kurtosis Statistics of Students' Resiliency Pretest and Posttest Scores by Student Groups*

Variable	<i>n</i>	Skewness	Skew Standard Error	z-skew	Kurtosis	Kurtosis Standard Error	z-kurtosis
Pretest							
Traditional	85	-0.43	0.26	-1.64	-0.17	0.52	-0.32
Non-traditional	70	-0.35	0.29	-1.22	0.34	0.57	0.60
Posttest							
Traditional	85	0.10	0.26	0.36	-0.76	0.52	-1.47
Non-traditional	70	-0.30	0.29	-1.05	0.17	0.57	0.29

**Homogeneity of variance.** Levene's Test of Equality of Error Variance was run to determine if the error variances of the dependent variables (resiliency pretest and posttest) were equal across levels of the independent variable (traditional students, non-traditional students). Results indicated that the dependent variables did not violate the assumption of homogeneity of variance (pretest  $p = .67$ , posttest  $p = .43$ ). These results

suggest that the error variances were equally distributed across levels of the independent variable.

**Homogeneity of variance-covariance matrices.** To examine the assumption of homogeneity of variance-covariance matrices, Box's M tests were run. For Box's M, the critical value for determining whether the assumption of homogeneity of variance-covariance matrices was violated is  $p < .001$ . Results from the tests found that the distributions were equal across independent variable groups,  $Box's M = 5.90, F(1, 18791851.78) = 1.94, p = .12$ . These results suggest that the assumption of homogeneity of variance-covariance matrices was met.

Using SPSS 22.0, Research Question 1 was evaluated using two independent-samples, t-tests and a profile analysis, to determine if any significant differences in nursing students' resiliency scores existed between traditional and non-traditional students at each particular test time (pretest and posttest) and over time. Results from the t-tests indicated there was a significant difference in resiliency scores between student types,  $t(1, 153) = 2.60, p = .01$ . That is, traditional students had significantly higher resiliency scores on the pretest ( $M = 79.20, SD = 10.04$ ) as compared to non-traditional students ( $M = 75.09, SD = 9.50$ ). However, there were no significant differences between student types on the posttest,  $t(1, 153) = 1.25, p = .21$ . This suggests that traditional students had statistically similar resiliency posttest scores ( $M = 80.38, SD = 9.92$ ) as compared to non-traditional students ( $M = 78.21, SD = 11.58$ ). Table 4.4 presents summary details of the independent-sample t-tests conducted for Research Question 1.

Table 4.4

*Summary of Independent-samples t-tests Conducted for Research Question 1*

Dependent Variable	t	df	Sig. (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Pretest	2.60	153	0.01	4.11	1.58	0.99	7.24
Posttest	1.25	153	0.21	2.16	1.73	-1.25	5.57

*Note.* Independent variable = student type (traditional, non-traditional),  $N = 155$ .

Results from the logistic regression multivariate test indicated that the students' profiles from pretest to posttest did not significantly deviate from parallelism, Wilk's Lambda = 0.98,  $F(1, 153) = 2.48$ ,  $p = .12$ , partial-eta squared = .02. This suggests that the change (increase) in resiliency scores from pretest to posttest was not significantly different for traditional students ( $\Delta M2-1 = 1.18$ ) compared non-traditional students ( $\Delta M2-1 = 3.13$ ). A model summary of profile Research Question 1 is displayed in Table 4.5.

Table 4.5

*Model Summary of Profile Research Question 1*

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Sig. ( <i>p</i> )	Partial Eta Squared	Observed Power
Test Type	0.93	12.04	1	153	< .01	0.07	0.93
Test Type * Group	0.98	2.48	1	153	0.12	0.02	0.35

*Note.* Dependent variables = resiliency pretest and posttest,  $N = 155$

**Analysis of Research Question 2**

Research Question 2 was evaluated using regression analysis to determine if a significant relationship existed between nursing students' resiliency scores and their GPAs. The criterion variable for Research Question 2 was students' GPA as measured by using 4.0 standard. The predictor variables were students' resiliency pretest and posttest scores, as defined in Research Question 1.

**Data cleaning.** Data were collected from a valid sample of 156 nursing students. Before the assumptions were assessed, the data were screened for missing data and univariate outliers. Missing data were investigated using frequency counts and no cases were found. The data were screened for univariate outliers; one case with a univariate outlier was found and removed from the analysis. Thus, 156 responses from valid students were received and 155 were evaluated by the regression analysis for Research Question 2 ( $n = 155$ ). Descriptive statistics of students' resiliency pretest, posttest, and GPA are displayed in Table 4.6.

Table 4.6

*Descriptive Statistics of Students' Resiliency Pretest, Posttest Scores, and GPA*

Variable	<i>n</i>	Min	Max	Mean	Standard Deviation	Skewness	Kurtosis
GPA	155	3.24	4.09	3.82	0.18	-0.93	0.37
Pretest	155	52.00	100.00	77.34	9.98	-0.34	-0.06
Posttest	155	45.00	100.00	79.40	10.72	-0.17	-0.08

*Note.* Total  $N = 155$ .

**Normality.** Before the research question was analyzed, basic parametric assumptions were assessed. That is, for the criterion (GPA) and predictor variables (resiliency pretest and posttest), assumptions of normality, linearity, and homoscedasticity were tested. Linearity and homoscedasticity were evaluated using scatterplots and no violations were observed. For normality, based on the evaluation of the  $z$ -skew/ $z$ -kurtosis coefficients, students' GPA was found to be significantly skewed ( $skew = -0.93$ ,  $z$ - $skew = -4.78$ ). Although the distribution was significantly skewed, according to the central limit theorem, sample sizes of 30 or more approximates the mean of the population (Durrett, 2004). With this in mind, Tabachnick and Fidell (2007) posited that when a sample size exceeds 100, statistical tests that use the general linear model, such as regression, are robust against violations of normality. Therefore, the assumption of normality was conditionally assumed for the significantly skewed distribution (GPA). The remaining distributions (pretest and posttest) were not significantly skewed/kurtotic and were assumed to be normally distributed. Skewness and



kurtosis statistics of students' resiliency pretest, posttest, and GPA are displayed in Table 4.7.

Table 4.7

*Skewness and Kurtosis Statistics of Students' Resiliency Pretest, Posttest Scores, and GPA*

Variable	N	Skewness	Skew Standard Error	z-skew	Kurtosis	Kurtosis Standard Error	z-kurtosis
GPA	155	-0.93	0.20	-4.78	0.37	0.39	0.96
Pretest	155	-0.34	0.20	-1.73	-0.06	0.39	-0.14
Posttest	155	-0.17	0.20	-0.88	-0.08	0.39	-0.20

Note. Total  $n = 155$ .

**Results of Research Question 2.** Using SPSS 22.0, regression analysis was used to determine if there was a significant relationship between nursing students' resiliency scores (pretest and posttest) and their GPAs. Results indicated that there was no significant relationship between criterion (GPA) and predictor variable (resiliency pretest and posttest),  $R = .13$ ,  $R^2 = .02$ ,  $F(2, 152) = 1.39$ ,  $p = .25$  (two-tailed). Thus, the null hypothesis for Research Question 2 was retained. A model summary of the regression analysis for Research Question 2 is displayed in Table 4.8.

Table 4.8

*Model Summary of Regression Analysis for Research Question 2*

Model	R	R <sup>2</sup>	F	df1	df2	Sig. (p)
1	0.13	0.02	1.39	2	152	0.25

Source	Unstandardized		Standardized		t	Sig. (p)	Part Correlation
	B	S.E.	Beta				
(Constant)	3.62	0.12			29.80	< .001	
Resiliency pretest	< .01	< .01	0.06		0.54	0.59	0.04
Resiliency posttest	< .01	< .01	0.08		0.69	0.49	0.06

*Note.* Criterion variable = students' GPA;  $N = 155$ .

**Analysis of Research Question 3**

Research Question 3 was evaluated using logistic regression analysis to determine if a significant relationship existed between nursing students' resiliency scores and their continuation into a graduate program. The criterion variable was whether students continued into a graduate program (yes, no). For the logistic regression analysis, students who did continue into a graduate program (yes) were coded as a '0' and those who did not go into a graduate program (no) were coded as a '1.' The covariates were students' resiliency pretest and posttest scores, as defined in Research Question 1. As seen in Table 4.9, of the 156 in both groups who completed both test, only 22 indicated they would not by continuing on to a graduate program.

**Data cleaning.** Data were collected from a valid sample of 156 nursing students. Before the assumptions were assessed, the data were screened for missing data and univariate outliers. Missing data were investigated using frequency counts and no cases were found. The data were screened for univariate outliers; one case with a univariate outlier was found and removed from the analysis. Thus, 156 responses from valid students were received and 155 were evaluated by the regression analysis for Research Question 3 ( $n = 155$ ). Descriptive statistics of students' resiliency pretest and posttest scores are displayed in Table 4.9 by graduate program status.

Table 4.9

*Descriptive Statistics of Students' Resiliency Pretest and Posttest Scores by Graduate Program Status*

Variable	<i>n</i>	Min	Max	Mean	Standard Deviation	Skewness	Kurtosis
Pretest							
No	22	52	100	76.41	11.38	-0.09	0.23
Yes	133	54	98	77.50	9.77	-0.39	-0.08
Posttest							
No	22	45	100	79.18	13.43	-0.30	0.65
Yes	133	51	100	79.44	10.27	-0.13	-0.42

*Note.* Total  $N = 155$ .

**Normality.** Before the research question was analyzed, basic parametric assumptions were assessed. That is, for the covariates (resiliency pretest and posttest), assumptions of normality, linearity, and homoscedasticity were tested. Linearity and homoscedasticity were evaluated using scatterplots and no violations were observed. For normality, based on the evaluation of the z-skew/z-kurtosis coefficients, no distributions (pretest and posttest) were significantly skewed/kurtotic and were assumed to be normally distributed. Skewness and kurtosis statistics of students' resiliency pretest and posttest scores are displayed in Table 4.10 by graduate program status.

Table 4.10

*Skewness and Kurtosis Statistics of Students' Resiliency Pretest and Posttest Scores by Graduate Program Status*

Variable	<i>n</i>	Skewness	Skew Standard Error	z-skew	Kurtosis	Kurtosis Standard Error	z-kurtosis
Pretest							
No	22	-0.09	0.49	-0.18	0.23	0.95	0.24
Yes	133	-0.39	0.21	-1.83	-0.08	0.42	-0.18
Posttest							
No	22	-0.30	0.49	-0.61	0.65	0.95	0.68
Yes	133	-0.13	0.21	-0.60	-0.42	0.42	-1.01

Note. Total *n* = 155

**Results of Research Question 3.** Using SPSS 22.0, logistic regression analysis was used to determine if a significant relationship existed between nursing students' resiliency scores (pretest and posttest) and their continuation into a graduate program. Results indicated that there was no significant relationship between whether students continued into a graduate program and a model containing two covariates (resiliency pretest and posttest),  $\chi^2(2, n = 155) = 0.35, p = .84$ . The two covariates explained between 0.2% (Cox and Snell R square = .002) and 0.4% (Nagelkerke R square = .004) of the variance observed in the criterion variable (graduate program status). Additionally, the model as a whole correctly classified 85.8% of the cases. A summary of the logistic regression analysis is displayed in Table 4.11.

Table 4.11

*Model Summary of Logistic Multiple Regression Analysis for Research Question 3*

Source	Chi-squared ( $\chi^2$ )		Cox & Snell $R^2$	Nagelkerke $R^2$	df	Sig. ( $p$ )	
Model 1	0.35		< .01	< .01	2	0.84	
	Unstandardized		Standardized		95% C.I. for EXP(B)		
Source	B	S.E.	Beta	Sig. ( $p$ )	Exp(B)	Lower	Upper
Pretest	-0.02	0.03	0.34	0.56	0.98	0.56	0.98
Posttest	0.01	0.03	0.12	0.73	1.01	0.73	1.01
(Constant)	-1.17	1.87	0.39	0.53	0.31	0.53	0.31

*Note.* Criterion variable = graduate program status (0 = yes, 1 = no);  $N = 155$ .

## Summary of Results

Two independent samples t-tests and profile analysis were used to determine if there was a significant difference in the resiliency scores between a traditional nursing student group and a non-traditional nursing group over time using the CD-RISC resiliency scale. Results indicated that there was a significant difference between the two groups. The traditional nursing students had significantly higher resiliency scores ( $M = 79.20$ ,  $SD = 10.04$ ) than the non-traditional nursing students ( $M = 75.09$ ,  $SD = 9.50$ ) on the pretest. However, there was no significant difference between the traditional nursing students and the non-traditional nursing students on the posttest, leading to the conclusion that the non-traditional students' resiliency increased during the nine-month period of time. Regression analysis was used to determine if there was a relationship between the nursing students' resiliency scores and their GPAs. In this research question, the null hypothesis was retained, determining there was no relationship between the students' resiliency scores and their GPAs. Lastly, logistic regression was used to determine if the students' resiliency scores can predict their enrollment into a graduate program. Similar to Research Question 2, the null hypothesis was retained. There was no significant relationship in either their pretest or posttest scores or their enrollment into a graduate program.

## Chapter 5: Discussion

### Introduction

As mentioned previously, nurses are the most appropriate and qualified health professionals to handle the needs of a growing diverse population. There are more complex issues in healthcare than ever before, patients are living longer, and healthcare incorporates various specialties to work with one patient. With more medical doctors going into specific specialties, there is a shortage in family physicians that can be filled by nurse practitioners (Beauvais et al., 2014).

Based on the nursing shortage and the small numbers of non-traditional nurses in the profession, the purpose of this study was to measure the resiliency of all nursing students in an accelerated program and to examine specifically the resiliency of non-traditional nursing students. Utilizing the CD-RISC resiliency survey to measure nursing students during their clinical coursework enabled the researcher to measure the students across time and at different stages of their nursing education. The study was conducted based on the following three research questions:

1. Are there differences in the CD-RISC resiliency scores between non-traditional male and female of color ANP nursing students and traditional White female ANP nursing students in the ANP cohort over time or at either particular point?
2. Is there a relationship between the CD-RISC resiliency scores of ANP undergraduate nursing students and their cumulative GPA?

3. Are the CD-RISC resiliency scores among ANP undergraduate nursing students predictive of their continuation into a graduate-level nursing program?

As discussed in the previous chapter, three analytical tools were used to examine the three research questions presented. Profile analysis determined there was a significant difference in the resiliency scores between the traditional nursing student group and the non-traditional nursing group over time using the CD-RISC resiliency scale. The traditional nursing students had significant higher resiliency scores than the non-traditional nursing students in the pretest, but there was no significant difference in the posttest as non-traditional students' scores increased over the nine-month period of the study. The null hypothesis was retained in Research Questions 2 and 3. There were no significant relationships between their resiliency score and their GPA or their enrollment into a graduate program.

### **Implications of Findings**

The transformational discovery in this study was the understanding that resiliency can change. This was demonstrated in the case with the non-traditional nursing student group, whose resiliency score increased over a period of time, leading to the possibility that resiliency can be developed over time. What happened during the nine-month period that increased the resiliency score in the non-traditional nursing student group?

Several variables were introduced to these nursing students during the nine-month period. During this time, the students were introduced to preceptors. Aside from classroom learning, nursing students must also participate in clinical experience at a clinical setting. Preceptors are the teachers during the clinical setting. A preceptor is an



experienced nurse shadowed by the students. Preceptorship has been consistently acknowledged in the literature as a strategy to maximize the benefits of clinical nursing education in terms of knowledge and skill acquisition, confidence, and professional socialization (Happell, 2009).

During the nine-month period, the students were assigned into smaller groups of 40. The 40 students participated in class and clinical educational settings together for nine months. The students were no longer part of the larger 202 student cohort. They were able to create and foster relationships with their peers. As seen in Henderson and Milstein's (1996) resiliency wheel, peer relationships create protective factors when dealing with their environment (see Appendix B). Prosocial bonding increases the positive connection among peers and educators (Thomsen, 2002).

The students were on winter break for four weeks, with many going back home to visit their family. This gave students an opportunity to take a break from the strenuous studying of an accelerated program, but also receive support and encouragement from their families. This is particularly important for non-traditional students, for whom family support has also been shown to be a contributing factor to academic success in underrepresented students (Loftus & Duty, 2010; Villarruel et al., 2001).

Non-traditional students felt culturally confident in dealing with patients. As described in earlier chapters, the nursing school is located in an urban setting in northeastern part of the United States. The students attended clinical placements at the hospital associated with the university. The patients at this hospital come from all walks of life and represent a melting pot of cultural, religious, economic, and sexual diversity. Studies have found that non-traditional students who share a common background with

the persons for whom they care are more comfortable around their patients and feel empowered (Carter, Powell, Derouin, & Cusatis, 2014; Coffman, Rosenoff, & Grumbach, 2001).

The study also retained a null hypothesis in finding a relationship between the students' resiliency scores and GPAs and their graduate program enrollment. By using the CD-RISC, Hartley (2011) found intrapersonal resilience factors contributed to explaining variance in cumulative GPA in addition to aptitude and achievement. This suggested that even though in this study, there was no relationship between resiliency scores and the cumulative GPA, further detailed examination of the CD-RISC and GPA may need to be done. In this study, there was a definite skewness (skewness = -4.78) in the GPA of the students. The mean of 3.82 in a 4.0 scale was too skewed to determine a significant relationship in this study when examining Research Question 2. Regarding the graduate program enrollment, these students had applied to an accelerated combined Bachelor's and Master's program. Their intent upon enrolling in the undergraduate program was to continue into graduate school.

### **Limitations**

Timing was limited in this study to nine months with a possible participant pool of 200 students. The study measured their resilience after the students completed their first semester and then again in the middle of their last semester. This nine-month period covered their clinical practice in their nursing education, in which students focused on the five areas of nursing practice: adult medical/surgical area, pediatrics, psychiatry/mental health, obstetrics/gynecology, and community health. The nine-month period of the study was limited to the accessibility of the 202 students in the ANP cohort. More than one-

third of the students were from outside of the northeast location of the institution, making it difficult to survey before the first day of classes. It was equally difficult to provide the survey during the first semester, given such a condensed first semester. The end of the term was filled with final exams that might have affected the students' responses in the second survey. Anxiety and test-taking issues could have created a possible concern in how the students responded to the survey.

Due to the large population of students, it was difficult to create multiple opportunities in a similar setting to distribute the survey. With such a heavy academic schedule in the first semester, the first possible opportunity to survey the students was the beginning of the second semester prior to the first day of clinical. To remain consistent with the initial setting of the pretest and the same proctors and instructions, the students were surveyed during two town meetings. Town meetings were held every Friday, which provided limited times in the 12 months for the research to be conducted. A more accurate picture would have been to measure the students prior to enrolling and at the end of the program.

Finally, timing was again a factor in examining the students' enrollment into a graduate program. During the time of the study, the students made a non-binding agreement to enroll into the graduate program at the same school. Students articulate into the graduate program during the posttest in March, with enrollment beginning in June or September. Even though the data information was available to determine their goal and articulation into a graduate program, no information was available if the articulation yield remained consistent to enrollment. A better measure to discover if there was a significant relationship between their resiliency score and their enrollment into graduate school

would have been to follow the students until September and determine their enrollment status at that time.

### **Recommendations**

Thus, one would expect education systems to have crucial and multifaceted functions in resilience theory and research. Schools nurture many of the adaptive systems in the individual that generate capacity for resilience over the course of development, while also affording opportunities or relationships with adults and peers beyond the family. These relationships contribute to the resilience capacity building but also provide additional social capital. (Masten, 2014, p. 218)

Schools play an important role in the development of resiliency in students.

Several recommendations made here are important to note for nurse educators. Nursing schools need to consider a preceptor mentoring program for students, preferably throughout their program. The preceptor can provide knowledge and wisdom based on experiences, as well as provide individualized professional and person support to students.

Schools may want to use a resiliency measuring tool prior to enrollment with target students who will need additional resources to handle adversity. During orientation, students can take a resiliency measuring tool such as the CD-RISC. Students with lower resiliency scores should be recommended to participate in tutoring and peer mentoring programs. A faculty advisor can be assigned to support these students with clear and consistent instructions and tools to be academically persistent and successful, as indicated in Henderson and Milstein's resiliency wheel. Understanding the importance of

family support and encouraging family activities during the program (Thomsen, 2002) are also recommended.

The underrepresentation of racial and ethnic minorities in the health professions can significantly impact both access to care and quality of care received (Carter et al., 2014). Further study should be done on the impact of cultural confidence in non-traditional students at non-traditional settings. Currently, there is no research on the impact of nursing students' experiences during clinical settings if placed in a culturally diverse patient population.

### **Conclusion**

Nursing no longer takes place only at the hospital bedside. Nursing is a complex profession in which nurses are primary clinicians who diagnose and coordinate patient care with other health professionals. Now more than ever, it is important to decrease the nursing shortage and equally important to diversify the nursing profession to reflect the patients it serves. Additionally, the nursing profession should be concerned about attrition rates for Master's and Doctoral nursing students (Beauvais et al., 2014). New nurses will need to be resilient in working with individuals facing health adversities and health disparities.

Resiliency can be developed in nursing students (Masten, 2014). With support and encouragement, nursing students, and specifically non-traditional nursing students, can overcome the obstacles they face. Nursing schools have the ability to foster resiliency and enable to students to be successful as students and as professionals.

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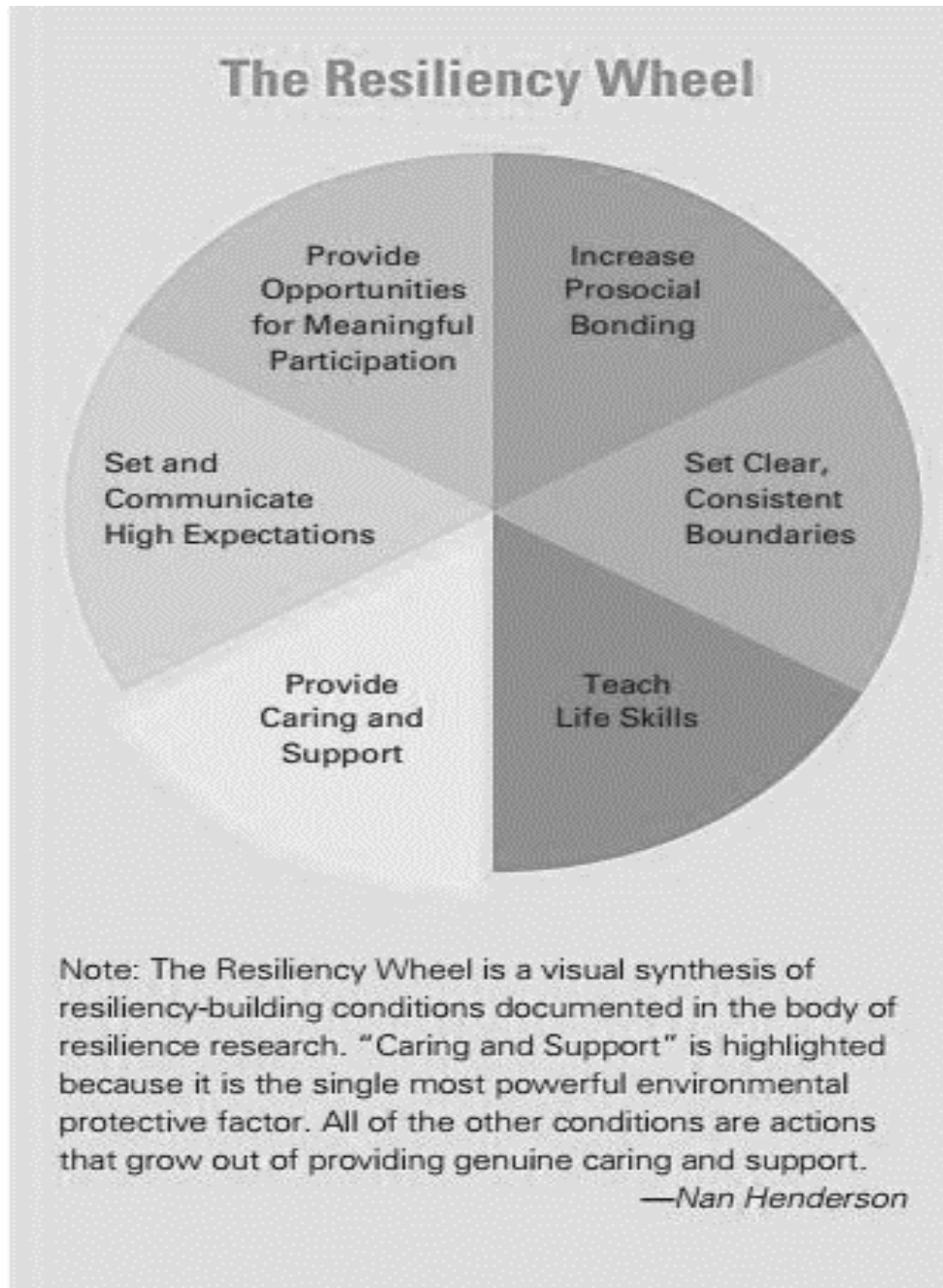
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## Appendix A

### The Resiliency Wheel



## Appendix B

### Connor-Davidson Resiliency Scale

initials  ID#  date  visit  age

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

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