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Nancy Spahr

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Walden University
2012

Abstract

Perceptions of Recent Male Nursing Graduates Regarding Gender Bias and Gender-Based Educational Barriers

by

Nancy Patricia Spahr

MBA, Bentley College, 1990

MS, Texas Woman's University, 1976

BSN, College of Saint Teresa, 1968

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Teacher Leadership

Walden University

October 2012

Abstract

Despite decades of important contributions by male nurses, nursing is still viewed as a feminine profession. Moreover, male nursing students continue to experience gender bias and gender-based educational barriers within schools of nursing. This has led to failure and drop-out rates much higher than those experienced by their female counterparts. The purposes of this quantitative survey study were to (a) explore the relationship between perceived gender bias, gender-based educational barriers within nursing education, and resiliency in recent male nursing graduates; and (b) to identify those gender-based barriers that were considered to be most prevalent and most important. A view of gender from a social constructivist approach framed the study. Two previously validated data collection tools, the Inventory of Male Friendliness in Nursing Programs-Short© (IMFNPS©) and the Brief Resilience Scale© (BRS©) were used to gather data from recent male nursing graduates ($N = 97$). The results demonstrated no significant correlation (Spearman *rho* = 0.1025, $p = 0.3178$), between mean scores on the IMFNPS and the BRS; however, overall mean resilience scores were high ($M = 3.90$, $SD = 0.62$). The gender-based educational barriers identified as being most prevalent and most important included (a) curriculum did not include a discussion of the historical contributions of male nurses, (b) clinical experiences were limited during the obstetrical rotation; and (c) male students feared that they would be accused of sexual inappropriateness when providing nursing care for female patients. Positive social change can occur for male nursing students if the most prevalent gender-based barriers are minimized or eliminated, men are provided with the appropriate skills to care for female patients, and resilience education is included within all nursing curricula.

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Dedication

This study has been the culmination of a lifelong dream and is dedicated to the memory of my wonderful husband, Thomas F. Spahr, who always believed I could do anything I set my mind on; my son Cristian Antonel Spahr who lost his life way too early; and my mother, Marvel L. Goodroad who strongly encouraged me to start this journey, but did not live to see me finish.

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It is impossible to express fully my deep thanks to Dr. Nathan Long for his unfailing guidance, support, gentle prodding, as well as his exceptional knowledge and expertise. Thanks Dr. Long for taking this journey with me.

I also want to acknowledge my three wonderful children who never failed to support me along this difficult journey, Shannon (Spahr) Sampson, Matthew Spahr, and Colleen (Spahr) Barnes. In addition, I cannot close this acknowledgment page without thanking my wonderful partner in love, Dan Berg, who never complained about all those weekends I spent working on my paper instead of spending time with him.

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Section 1: Introduction to the Study

Introduction

The function of caring for others has traditionally been delegated to women. Even the word *nurse* denotes a feminine context related to motherhood, caring, and nurturing. Fealy (2004) noted that the image of the *good nurse* has been indistinguishable from that of the good woman or the good mother, and that "feminine qualities were held to be important in the performance of the nursing role" (p. 651). Although the history of nursing clearly demonstrates that men were employed as care providers, especially in mental hospitals in the 1800s, their contribution is rarely known or recognized (O'Lynn, 2007, p. 6)).

The role of men in nursing was dealt a significant blow in the 1860s when Florence Nightingale began her school of nursing (O'Lynn, 2007, p. 25). Although Nightingale provided critical reforms in the methods used to educate nurses, and she is credited with elevating the status of women in nursing; men were barred from attending her schools (O'Lynn, 2007, p. 25) This practice continued well into the 20th century in many countries.

Excluding men from entering the profession of nursing has been recognized as an important factor in the development of the nursing shortage. Christman (2004) reported that more men tend to remain in the workforce working full-time as opposed to women. He contended that "if the profession was 35% male, there would not be a shortage" (p. 84). The current nursing shortage is also considered a global phenomenon that is expected to increase by three times the current rate over the next 13 years (American

Association of Colleges of Nursing [AACN], 2008). The AACN has reported that 30,000 additional nurses should be graduated from schools of nursing each year just to meet the healthcare needs of the growing elderly population (AACN, 2008).

However, unlike nursing shortages that have occurred in the past, this one will not be easily solved by recruiting more women into the profession. The nursing profession must now compete for the brightest and most talented young women with the more lucrative and less stressful professions (O'Lynn, 2004, p. 229). Many nursing leaders are beginning to understand that the key to eliminating the nursing shortage is to recruit more men into the profession (Anthony, 2004; Keogh & O'Lynn, 2007; McMillian, Morgan, & Ament, 2006; O'Lynn, 2004; Porter-O'Grady, 1995; Sherrod, Sherrod, & Rasch, 2006; Smith, 2006). O'Lynn (2004) reported that "if men entered the profession at the same rate as women today, there would be no nursing shortage" (p. 230).

In 1963 only 1% of all nurses in the United States were men (O'Lynn, 2004, p. 231). These statistics have shown little improvement over the past few decades. Currently, only 7.9% of all registered nurses are men (Roth & Colemen, 2008, p.148). In addition, men are leaving the profession of nursing at a much higher rate than their female colleagues (Brady & Sherrod, 2003).

Although there is limited research in this area, O'Lynn (2004) reported that men are not entering the profession due to the widely held belief that nursing is a feminine profession. Those who enter nursing programs are encountering "nursing curricula which was developed in a fashion that preferences women, along with significant barriers related to gender bias and lack of equity in learning opportunities" (O'Lynn, 2004, p.

231). Other researchers have found that nursing education continues to perpetuate gender stereotypes that can create difficult and inequitable learning environments for male students (Keogh & O'Lynn, 2007; McMillian et al., 2006). It is vital that gender-based educational barriers in nursing education be exposed so they can be analyzed, evaluated, and measures taken to foster inclusiveness so that men will seek nursing as a profession where they are welcomed and valued.

Statement of the Problem

There is a problem within nursing education that impacts male nursing students' ability to successfully complete an academic program. Specifically, male nursing students are experiencing gender bias and gender-based educational barriers that are contributing to a 40 to 50% attrition rate for men in schools of nursing (Stott, 2004, p. 91). Brady and Sherrod (2003) reported that nursing faculty are not aware of the gender-based educational barriers that exist within schools of nursing, and few attempts have been made to address the significant impact these barriers have on the academic success of male nursing students. In order to recruit and retain more men in the nursing profession, nurse educators need to create a male-friendly learning environment with gender neutrality and equality in all learning opportunities.

Nature of the Study

A quantitative, non-experimental, descriptive, correlational, survey design was employed for this study. An online survey using Survey Monkey™ was developed using two previously validated tools, O'Lynn's (2004) Inventory of Male Friendliness in Nursing Programs-Short© (IMFNPS©) and Smith, Tooley, Christopher, and Kay (2010)

Brief Resilience Scale© (BRS©). The survey also contained 9 demographic questions which included information such as as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity. In addition, each question was structured to include a space for free text comments.

The sample population for this quantitative study included all recent male nursing graduates who had successfully passed the National Council Licensure Exam (NCLEX-RN) and applied for and received licensure as a Registered Nurse within the past 12 months, in a large state located in the southwestern part of the United States. Each potential participant was mailed an introductory letter that explained the purpose of the study and included a link to the web-based online survey. The survey was available to the participants for a total of 8 weeks to allow ample time for completion of the survey.

Descriptive and inferential statistics were used for the data analysis. Means and standard deviations were calculated for each of the scores on the IMFNPS and the BRS. A correlation coefficient was calculated using the Spearman *rho* and the findings demonstrated a weak correlation between mean age of the participants and their scores on the IMFNPS (Spearman $rho = 0.01$, $p > 0.05$) and the scores on the BRS (Spearman $rho = 0.13$, $p > 0.05$). Additional findings demonstrated that three of the gender-based educational barriers were identified by 60% of the participants as being present within their school of nursing and five barriers were identified as the most common and the most important to the participants. The participants' scores on the BRS showed a high level of resilience as compared to previous studies of comparable age groups. The results of this

study support the need for a critical review of nursing curricula to ensure that it is free of gender bias and that all learning opportunities are comparable for both genders. A more detailed description of the study methodology is presented in Section 3.

Research Questions and Hypotheses

RQ1: Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program?

$H_0$1: There is no significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

$H_1$1: There is a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

RQ2: Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses?

$H_0$2: Gender-based educational barriers are not still prevalent within nursing curricula.

$H_1$2: Gender-based educational barriers are still prevalent within nursing.

RQ3: What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career

student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

$H_0$3: There is no relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity.

$H_1$3: There is a relationship between gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

RQ4: Are new graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession?

$H_0$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are not able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

$H_1$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

Purpose of the Study

The purpose of this descriptive, correlational survey study was to examine the prevalence of real or perceived gender bias and gender-based educational barriers within schools of nursing in a large state in the southwestern United States, and to determine if there was a correlation between the male nurses who perceived the greatest number of barriers and their levels of resilience, or ability to bounce back from stressful situations. The outcomes of this study serve to validate the presence of gender-based learning barriers and will ultimately assist the nursing profession to shed the long held feminine model that has hindered efforts to recruit and retain more men into nursing. In addition, the study helps to authenticate the concept that people who are highly resilient are able to bounce back from stressful situations thus giving them an added tool to be able to successfully complete an academic nursing program (Tugade & Fredrickson, 2004).

Theoretical Framework

Although there are many theoretical approaches that could be used to examine the issues surrounding gender bias within nursing education, this descriptive, correlational, survey study was based upon an ontological assumption that reality is determined by the unique perceptions of each individual. This assumption allowed me to consider those gender-based educational barriers that the participants had personally experienced as well as those which they perceived as being present. Building upon this ontological foundation, I utilized the theory of gender as a social construction. In this model, gender is not viewed as merely a trait, "but simply a construct that identifies particular transactions that are understood to be appropriate to one sex" (Bohan, 1993, p. 7). Bohan

(1993) emphasized that “gender so defined is not resident in the person but exists in those interactions that are socially construed as gendered” (p. 7). Defining gender as a social construct allows the individual to view various interactions as either feminine or masculine according to what is “socially agreed upon” (Bohan, 1993, p. 7).

O’Lynn (2007) noted that when gender is viewed as a social construct, it can lead to a greater understanding of gender in relationship to learning and interactions. O’Lynn pointed out that “these interactions have shared meanings as to what is appropriate and/or expected in terms of biological sex” (O’Lynn, 2007, p. 170). In this context, gender is viewed as an active process, namely it is “something that people do, not something that people are” (O’Lynn, 2007, p. 171).

Some gender constructs become fixed and continue to be reinforced by stereotypes, language, and imagery. This is what appears to have transpired in nursing. Many view nursing as a feminine construct that has remained relatively unchanged for decades. These static hegemonic forces have created significant role stress for male nurses (O’Lynn, 2007). Using a social constructivist model for this study provided a broad approach, thus minimizing the potential impact of preconceived ideas and stereotypes. This study emphasized that it is important to rely on the real and perceived experiences of male nursing students and ascribe meaning to those experiences using an interpretive lens that is grounded in gender social constructivist theory.

The second theoretical basis for this study was found in resilience theory. Resilience theory posits that some individuals have the ability to bounce back in the face of stressful situations or adversity (Jacelon, 1997). Jacelon (1997) described resilience as

"a personality characteristic that moderates the negative effects of stress and promotes adaptation" (p. 124). Although some controversy exists, many researchers believe that resilience is a process that can be learned (Coutu, 2002; Flach, 1988). For male nursing students who may be experiencing considerable stress related to gender bias and gender-based educational barriers, providing the tools to effectively develop resiliency may help them succeed. As Coutu found, "More than education, more than experience, more than training, a person's level of resilience will determine who succeeds and who fails" (2002, p. 47). Both of these theoretical frameworks are discussed in greater detail in Section 2 of this study.

Operational Definitions

Caring behaviors: Defined in this study as an essential element and paradigm of nursing practice. Caring involves an expression of intentional compassionate care as expressed by:

> (a) person-centered intention, (b) preserving dignity and humanity, (c) committed to alleviating vulnerability, (d) giving attention and concern, (e) reverence for person and human life, (f) love and co-presence, (g) authenticity and availability, (h) being with, (i) feeling compassion, (j) intentional presence, and (k) intention of knowing, acknowledging, affirming, celebrating the other. (Watson, 2002, p. 12)

Feminine and Feminine Traits: Those traditional sex-trait stereotypes that are generally thought to be ascribed to women such as "concern for the welfare of others,

affection, kindness, interpersonal sensitivity and nurturance" (Eagly, Beall, & Sternberg, 2004, p. 275).

Gender-based educational barriers: Any portion of the nursing curricula that creates a lack of equity in learning opportunities based on gender (O'Lynn, 2004, p. 231).

Gender bias: Any issue that is gender-related and creates a learning barrier, whether real or perceived, for the male nursing student. Examples of gender bias include (a) social isolation, (b) lack of male nurse role models, (c) curricula and texts written primarily by women, (d) unequal clinical experiences, (e) inadequate education to prepare men to care for female patients, (f) different performance and behavioral expectations for male students, and (g) failure to recognize that men have different methods of demonstrating caring behaviors within nursing practice (O'Lynn & Tranbarger, 2007, p. 181).

Gender stereotypes: Sex-role assumptions or generalizations that are made about a group, which may or may not have any basis in fact. Burton and Misener (2007) have identified four different negative stereotypes related to male nurses. These include the concept that male nurses are (a) "physician wanna-be," (b) "failed medical school applicant," (c) "gay or effeminate," and (d) simply a "misfit, trying to fit into a feminine world" (p. 257).

Resilience: The ability or capacity of an individual to recover from or bounce back from severe stress or adversity, and may include such personality traits or characteristics as (a) a strong acceptance of reality, (b) deeply held values and belief that

life is meaningful, (c) ability to improvise and adapt to change, and (d) a sense of humor (Coutu, 2002; Jacelon, 1997; Smith et al., 2010).

Role stress and role strain: Terms that are used interchangeably throughout this study. These terms refer to any real or perceived emotional distress resulting from social isolation, gender stereotypes, and discomfort felt by men who are in a predominantly female profession (Holroyd, Bond, & Chan, 2002; Keogh & O'Lynn, 2007).

Social isolation: A feeling of loneliness and segregation due to being a part of a gender minority. These feelings of being separate from the majority of the class creates uncertainty about the expectations of their peers and their instructors (Anthony, 2006, p. 47). Fenkl (2006) described social isolation as a form of tokenism: a person is considered a token member when he or she represents less than 15% of the dominant group (p. 39).

Scope and Delimitations

This study focused on male nurses who recently graduated from a professional college or school of nursing in the southwestern part of the United States and who successfully passed the NCLEX. Data collection was directed toward male nurses' perceptions and experiences with gender bias and previously identified gender–based educational barriers using the Inventory of Male Friendliness in Nursing Programs Short (IMFNPS) tool (O'Lynn, 2004; Patterson, 2002). The levels of resiliency were measured using a previously validated resilience scale called the Brief Resilience Scale (BRS) developed by Smith et al. (2008). The participants were surveyed electronically using a list of names and addresses obtained from the State Board of Nursing. Although the

southwestern state that was selected as the site for the study is a state with a very diverse ethnic population, the ability to generalize the results of this study beyond this state may be limited.

Although previous studies (O'Lynn, 2004; O'Lynn & Tranbarger, 2007; Patterson, 2002) have identified numerous gender-based learning barriers, data for this study was collected in a manner that validated the continued presence of previously identified barriers, determined those barriers that are no longer present, and identified those barriers that continue to be an important source of stress for male nursing students.

Assumptions

1. A gender-based educational barrier that is perceived to be present has the same effect as a barrier that is actually experienced by the male nursing student.
2. The survey was written in a manner that was easy to understand and that each question was interpreted in approximately the same manner by each participant.
3. The participants willingly participated in the survey without any unknown coercion or pressure from sources outside of the study.
4. Male nursing graduates were willing to answer the survey questions in a truthful manner and to share their feelings, perceptions, and experiences honestly.
5. Resiliency is a process that can be taught, and adding this content to the nursing curriculum can increase the retention rates for male nursing students.

6. Men and women within schools of nursing are academically and intellectually equal, that is men are not dropping out or failing because they lack intellectual capacity.

Limitations

A number of limitations are inherent within the research design of this study. Some participants may have felt uncomfortable or unwilling to answer the survey questions in a completely honest and truthful manner. They may also have been unwilling to provide accurate information regarding their characteristics of resiliency.

The answers to the questions on the survey tool required the participants to identify observed or perceived gender-based educational barriers. Fowler (2002) noted that some respondents may not have the same understanding of what the question is asking, and this could result in distorted data.

There are many other tools available that have been used to measure resilience. This study used the BSR because it measures an individual's ability to bounce back from stressful situations. I chose this tool because it closely aligns with the purposes of the study. However, it is possible that other tools would result in different resilience scores.

I cannot affirm that gender-based educational barriers that exist in one university or school of nursing in one select state are generalizable to another university in another state. There also exists a potential threat to internal validity, which is referred to as "experimenter expectancy" (Leedy & Ormrod, 2001, p. 104). This limitation implies that by identifying potential gender-based issues on the survey it may prompt the respondents to perceive biases that may not actually be present.

Significance of the Study

Without the knowledge that a problem exists, nothing can or will be changed. Earlier studies have demonstrated that gender-based educational barriers are a real part of nursing education and may be one of the reasons that some schools of nursing are facing a 40-50% drop-out or failure rate for male students (Keogh & O'Lynn, 2007; Wilson, 2005). However, studies have also demonstrated that nursing faculty are unaware of these issues and may in fact be perpetuating the problem by creating classroom and clinical environments that are not gender neutral and that fail to recognize some of the unique learning needs of male nursing students (Grady, Stewardson, & Hall, 2008).

By choosing to enter nursing, male students are being faced with the stereotypical views of nursing as a female profession; for example, men who enter the profession are often looked upon as homosexual (Tillman & Machtmes, 2008). The public view of the nurse as a nurturing female figure has changed very little over the decades, and male nurses still experience significant discrimination and gender issues within the profession (Lou, Yu, Hsu, & Dai, 2007; Roth & Coleman, 2008).

Recognizing that gender-based educational barriers exist within nursing curricula and helping to establish a link between these barriers and the educational struggles of male nursing students, can have far reaching implications for schools of nursing and for the profession as a whole. If the nursing profession hopes to attract and retain more men, they will need to eliminate gender bias and begin treating men as equal partners.

Despite the presence of numerous gender-based educational barriers, some male students are able to thrive and successfully graduate and pass the NCLEX-RN licensure

exam. This study set out to investigate, in part, what makes some male students more susceptible to the effects of stress and social isolation caused by gender-based educational barriers and whether the male students who succeed actually possess higher levels of resilience. If this is the case, and resilience is a skill that can be successfully learned and internalized, then it would make sense that resilience education be a part of every nursing curricula. The findings of this study can provide an important link between the inclusion of resilience education in the nursing curriculum and male students' ability to be successful throughout their nursing program.

Porter-O'Grady (1995) emphasized that gender bias in nursing is all pervading, but is not always clearly recognized for what it truly is. Once gender-based educational barriers are exposed, recognized, and eventually eliminated, it will be possible for more men to successfully integrate into the nursing profession and the concept of nursing as a feminine profession will cease to exist.

Summary and Organization of the Remainder of the Study

Despite decades of important contributions by male nurses, nursing continues to be identified as a feminine profession. Significant gender-based educational barriers persist for male nursing students and efforts to recruit and retain men in the profession have been met with limited success. The importance of providing a nursing workforce that reflects the diversity of the population that they serve highlights the critical need for nursing to shed its image as a women's profession and create a learning environment with gender equality.

This study is presented in five sections. Section 1 includes the introduction, problem statement, nature of the study with specific research questions and hypotheses, purpose of the study, the theoretical framework, operational definitions, scope and delimitations, assumptions and limitations, and the significance of the study.

Section 2 presents a review of the literature related to (a) the history of men in nursing, (b) the view of nursing as a feminine profession, (c) nursing education as the foundation for gender-based educational barriers, (d) the conceptual and theoretical framework for the study, (e) the justification for the use of a quantitative research design, and (f) the summary and conclusions including common themes, gaps in the literature and social importance of the topic.

Section 3 describes the research methods that were used in the study, including the research design, the setting and sample, the data collection instuments and the rationale for the selection of these tools, the data collection methods used, an explanation of how the data was analyzed, the threats to validity, and the measures that were used for ethical protection of the study participants.

Section 4 includes a detailed description of the research findings, the results of the data analysis related to each research question and hypothesis, tables which were used to add clarity to the data analysis, comments on the research findings including a summary of the themes identified from the participants' comments, and a summary of the analysis.

Section 5, the final section in this doctoral study, provides an overview of the study, an interpretation of the findings including the five major themes identified from

the comments, implications for social change based on the findings, recommendations for future action, implications for future research, and a concluding statement.

Section 2: Literature Review

Introduction

In 1963, 1% of all nurses in the United States were men (O'Lynn, 2004, p. 231), and today that figure has increased to only 7.9% (Roth & Colemen, 2008, p.148). In order to understand the complex issues regarding why so few men elect to enter schools of nursing, and why those who do struggle to succeed, it is important to look at a wide range of research on this and related topics. An extensive literature search was conducted using multiple databases (e.g. PubMed, MEDLINE, CINAHL, SCOPUS, ERIC, and Google Scholar). Key search words included: *barriers, caring, feminization, gender, gender bias, gender bias in education, gender roles, gender role theory, gender barriers, gender role stress, gender role strain, hardiness, hegemonic masculinity, history of men in nursing, masculinity, male nurses, men, men in nursing, men and caring, men and touch, nursing, nursing education, nursing faculty, nursing education research, nursing history, resilience, resiliency theory, resilience in education, resilience in nursing, role stress, role strain, sexual stereotypes, segregation, social constructivism, social roles, social role theory*, and *touch*. Bibliographies and reference lists of reviewed articles were also used to find additional resources related to gender-based educational barriers. Articles prior to 2000 were not automatically excluded due to the historical nature of some of the research topics.

The following review of literature is divided into six primary sections: (a) history of men in nursing, (b) nursing still viewed as a feminine profession, (c) nursing education as the foundation for gender-based educational barriers, (d) conceptual and theoretical

framework, (e) a review of the research methods used to study gender identity and resiliency, and (f) a summary that includes a discussion of the gaps in the literature and the purpose and social importance of the study topic.

Men in Nursing: Historical Perspective

Although fewer than 8% of the nurses in the United States are male, there is a misconception that nursing has always been a female-dominated profession. In truth, nursing literature and historical studies have confirmed that the feminization of nursing is a relatively recent phenomenon (Burton & Misener, 2007; Fenkl, 2006; Mackintosh, 1997). Dating back to the pre-Common era, the primary caregivers for the sick during the Hippocratic period of ancient Greece were men who were supervised by male physicians (O'Lynn, 2007, p.9). The first known formal school of nursing was founded in India in 250 B.C.E. and only men were admitted because "women were not considered pure enough to serve in this role" (O'Lynn, 2007, p. 9).

During the early monastic movement in the 14th century, the Alexian Brothers, a non-literate Christian religious order of men, cared for and buried the victims of the Black Plague when most people fled in terror (Wall, 2009; Wilson, 2006). The Alexian Brothers continued to care for the poor and sick throughout the centuries and eventually brought their order to the United States in 1866. They spread their mission of caring for the sick by building hospitals in cities such as Chicago, St. Louis, and Milwaukee. The Alexian Brothers' hospitals were unique in that the care was provided for men and boys, by men; thus nursing care took place within a masculine context and the hospitals

specialize in the areas of urology, neurology, orthopedics, physical therapy, and eventually psychiatry (Wall, 2009, p. 159).

In 1584, St. Camillus de Lellis established a religious order which was known as the "Fathers of a good death" (Whittock & Leonard, 2003, p. 243). This group of religious men cared for the victims of the "Black Death" both in hospitals and in the homes of the sick. However, with the dissolution of the monasteries, care of the sick began a dramatic change which ushered in the stage of nursing as a female-dominated profession (Whittock & Leonard, 2003).

The years between 1500 and 1800 are sometimes referred to as the "Dark Ages of Nursing" (O'Lynn , 2007, p. 21). During this time, there was a large decline in basic nursing knowledge, skills, and values. This decline was caused primarily by the Protestant Reformation that precipitated the closure of most of the monasteries and convents. With the absence of the religious orders to run the hospitals, they were turned over to secular organizations that lacked the knowledge and ability to run them effectively and compassionately. Patients were kept in deplorable conditions and were cared for by untrained nurses "of questionable character" (O'Lynn, 2007, p. 22).

These conditions continued to exist until Florence Nightingale ushered in her reforms and was able to dramatically improve the squalid conditions within the hospitals in London during the mid 1800s (O'Lynn, 2007, p.24). The image of nursing dramatically improved in 1860 when Florence Nightingale opened the first Nightingale Training School for Nursing in London, England; however men were barred from attending (Anthony, 2004). Although Nightingale's reforms in hospitals and training

schools dramatically decreased patient mortality and elevated the profession of nursing into a "respectable refuge for the modest Victorian female," it left men with no place in the profession (Mackintosh, 1997, p. 234). The understanding that nursing was considered *women's work* continued to grow throughout the nineteenth century. Boschma, Yonge and Mychajlunow (2005) noted that women were thought to have a "special moral capacity and compassion, and the right characteristics, such as devotion, sensibility and sacrifice for caring work" (p. 245). Florence Nightingale felt that women, by their nature, were much better suited for the role of caring for the sick. In a letter she wrote in 1867, Nightingale stated

> The whole reform in nursing both at home and abroad has consisted of this: to take all power over the nursing out of the hands of men, and put it into the hands of one female trained head and make her responsible for everything. (Dossey as cited in O'Lynn & Tranbarger, 2007, p. 24)

The practice of excluding men from schools of nursing continued into the 20th century in many countries; although men continued to work in the nursing profession, caring for the wounded in wars and in the mental health asylums. To meet the needs of gender-segregated care, New York's Bellevue Hospital began providing a separate training program for men (Anthony, 2004, p. 3). However, in England male nurses were not allowed to use the title of Registered Nurse until the 1930s (Mackintosh, 1997).

Although men were kept on the periphery of the nursing profession, they continued to care for the sick during the later part of the 19th century into the early part of the 20th century. Also during this time, several other nursing organizations were

created to provide peer support for male nurses. Some of these organizations included the Temperance Male Nurse Cooperation, the Society of Nurses and Masseurs, the Male Nurse Mutual Benefit Organization, and the Royal Army Medical Corps (Whittock & Leonard, 2003).

In Great Britain, the Nurses Registration Act was passed in 1919. This act required a registration process to help protect the public from women who claimed to be nurses, but had not attended any formal nursing education. However, only women were allowed full membership in this registry (O'Lynn & Tranbarger, 2007). Trained male nurses were part of a separate registry and very few schools of nursing were open to men. As a response to this, the Society of Registered Males Nurse was established in 1937 to provide support for male nurses as well as to help create standards of practice and educational opportunities (Mackintosh, 1997). This organization was later disbanded in 1969 after education and employment reforms provided more equity for male nurses.

In the United States, men entered the nursing profession in greater numbers as commissioned officers in the military during WWII. During the war, the military experienced a shortage of nurses and even considered drafting female nurses; however, male nurses who were enlisted could not function as nurses or corpsmen and were assigned roles outside of healthcare (Mackintosh, 1997). Many wanted to work in the battlefields where female nurses were not allowed (Houser & Player, 2004, p. 72). Luther Christman, along with some nursing leaders and the American Nurses Association, lobbied for the opportunity for men to serve as nurses in the military. Christman wrote to General Dwight D. Eisenhower regarding this injustice. General Eisenhower "was

indignant that male nurses were barred from receiving commissions.... and worse that they could not serve in any capacity in the U. S. Army health fields" (Houser & Player, 2004, p. 72).

It wasn't until 1955 that President Eisenhower signed the bill that allowed male nurses to be commissioned as nurses in the Army and the Navy Nurse Corps (O' Lynn & Tranbarger, 2007). However, there remained very limited opportunities for men to receive a nursing education, especially at the baccalaureate level. Admission policies discriminated against men, and those who were admitted found an inequality of clinical experiences (Houser & Player, 2004, p. 78).

In 1961, only 25 out of 170 schools of nursing in Canada accepted men, but in the United States it took a U. S. Supreme Court ruling in 1982 to force state-supported schools of nursing to admit men into the nursing program (Evans, 2004; Wilson, 2006).

Nursing: Still Viewed as a Feminine Profession

Many authors agree that the failure to recognize the historical contributions men have made to the nursing profession has created the mindset that nursing has always been a feminine profession (Anthony, 2004; Boschma et al., 2005; Fealy, 2004; Keogh & O'Lynn, 2007; McMillian, Morgan & Ament, 2006; O'Lynn, 2004).

Societal Gender Stereotypes and the Feminization of Nursing's Image

Gender stereotypes are defined as "a set of beliefs about what it means to be female or male...and includes information about physical appearance, attitudes and interests, psychological traits, social relations, and occupations" (Golombok & Fivush, 1994, p. 17). Research has identified those characteristics that most people consider to be

stereotypical for men and women (Golombok & Fivush, 1994; Williams & Best, 1990), yet stereotypes may not represent reality. Instead, gender stereotypes "represent culturally shared beliefs about what particular individuals will be like" (Golombok & Fivush, 1994, p. 18).

The stereotypical attitudes of nursing as a female profession have changed very little over the decades, and the 7.9% of the nursing population who are men are still experiencing significant discrimination and gender issues within the profession (Lou, Yu, Hsu, & Dai, 2007; Roth & Coleman, 2008). In 2004, joint surveys were conducted by the National Student Nurses Association and the Bernard Hodes Group in conjunction with several nursing organizations including the American Assembly for Men in Nursing (Hart, 2005). The results of these surveys demonstrated that 82% of the respondents felt that the profession of nursing is still haunted by the following stereotypes, (a) nursing is a feminine profession, dominated by women; (b) men should not be nurses because they are not caring enough, and (c) men who are nurses are gay (Hart, 2005, p. 35).

Hereford and Reavy (2008) discussed the negative effects the media has had in perpetuating these typical male nurse stereotypes. Male students often feel pressured to enter fields such as emergency nursing or trauma nursing because these nursing specialties are considered more appropriate for men. During student interviews, Hereford and Reavy found that some male students expressed concerns that the public views a male nurse as being "a sissy or ...he doesn't have what it takes to become a doctor" (p. 26). Men who enter the field of nursing may be subjected to criticism and questions of their gender identity in regard to their career choice (MinorityNurse, 2010). For some

men, this has forced them to accept positions within nursing that are more closely aligned with a "tough minded, technologically savvy," hegemonic masculinity identity (Fenkl, 2006, p. 40).

Gender stereotypes are not solely the province of nurses within the United States. The Chinese culture has long viewed nursing solely as the purview of women due to the nurturing, yet subservient role of women within this patriarchal society (Holroyd, Bond, & Chan, 2002). In Ireland, Fealy (2004) found that the image of the "good nurse" continues to be synonymous with the "good woman" and the ideal nurse is often sentimentally viewed as the "selfless heroine" and the "doctor's loyal assistant" (p. 653). In Canada, Great Britain, and Australia, men are still reluctant to enter the field of nursing because it is often perceived as unmanly by peers as well as parents and other family members (Evans, 2002; Evans & Frank, 2003;Stott, 2007; Whittock & Leonard, 2003).

Studies in Jordan found that women were often viewed with admiration when they entered male dominated professions, yet men who enter nursing were viewed negatively with questions being raised regarding ulterior motives for selecting a female-dominated profession (Ahmad & Alasad, 2007, p. 237). Although in Jordan, males comprise 65% of the total enrollment within colleges of nursing, Ahmad and Alasad (2007) determined that patients (both male and female) prefer to be cared for by a female nurse. In addition, patients reported that they considered nursing to be an undesirable profession for men (Ahmad & Alasad, 2007, p. 241). This study also demonstrated that significant role stereotypes continue to exist, with two-thirds of both male and female

patients holding beliefs that male nurses “tend to be effeminate” (Ahmad & Alasad, 2007, p. 241).

Caring as the Essence of Nursing: Is it Solely a Feminine Trait?

Caring (e.g. caring for and caring about another human being) is considered the very essence of what nursing is all about. In 1990 the National League for Nursing (NLN) passed an important resolution that stated caring should be the core value in schools of nursing curricula (NLN, 1991). They also emphasized the need for faculty to demonstrate caring behaviors toward the students as well as other faculty members. The NLN felt that caring behaviors could be learned by those who experienced caring practices between faculty and students (Beck, 2001).

The NLN endorsement of caring as an inherent part of the nursing curriculum sparked considerable debate about the definition of caring (Watson, 2002). Schools of nursing were reluctant to incorporate this content into the curriculum unless the concept was clearly defined and outcomes could be measured. Benner and Wrubel (1989) were among the first to write about the importance of caring as “central to effective nursing practice” (p. 4). They proposed the following definition: “Caring…means that persons, events, projects and things matter to people…. Caring is a word for being connected and having things matter” (Benner & Wrubel, 1989, p. 1). Watson’s theory of human caring defined caring in such a way that could be measured and taught, and she was one of the first nurse researchers to link the concept of human caring and compassion to improved patient outcomes (Watson, 2002).

Early studies have demonstrated that the perception by both men and women is that women are able to express feelings more than men and that women have more of a natural aptitude for nursing (Mackintosh, 1997; Okrainec, 1994). Okrainec (1994) found that 25% of the respondents felt that women had a more caring attitude and were able to demonstrate greater empathy than men (p. 103). O' Lynn and Tranbarger (2007) and Gransee (2005) both found that when the concept of caring is examined from the perspective of gender it is primarily associated with women and femininity. As a counterpoint to that, hegemonic masculinity contradicts the inherent behavioral traits that are traditionally associated with caring, emotional involvement, and empathy (Gransee, 2005, p. 8).

Grady et al. (2008) studied the ways nursing faculty perceived and responded to caring behaviors in male students in order to gain a greater understanding of the different behaviors that male students exhibit in demonstrating caring toward their patients. The study confirmed that "male nursing students perceived their learning to care was hindered by nursing faculty expectations of demonstrations of care that were the same as female student's demonstrations of care" (Grady et al., 2008, p. 315). Although the study was small ($N = 6$), it showed that

> Male nursing students may be perceived as not caring because they do not use the traditional nursing caring behaviors…just because male nurses don't put their arms around the patient…doesn't mean that they don't care. Because it's a different kind of caring doesn't mean that they don't care at all. (Grady et al., 2008, p. 318)

Hart (2005) surveyed male nurses and found that one of the primary barriers they faced in nursing school was being viewed as uncaring. Thompson (2002) noted that male nurses are more likely to adapt a professional model of caring that emphasizes task completion, problem-solving, and resource management to meet the patient's needs (p. 20).

Anthony (2004) recognized that "learning to care professionally is a core behavior in nursing that may be experienced differently by male nursing students" (p. 5). Anthony also emphasized that men are socialized to limit overt expressions of emotions, whereas females are more likely to demonstrate caring behaviors "through touch and open expression of emotion" (p. 5). Many male nurses report that even though they felt they were connecting with their patients on a caring level, their caring behavior was not always viewed in a positive way by their nursing instructors "who expected caring behaviors to be outwardly sensitive and demonstrative" (Anthony, 2004, p. 5).

One of the most important demonstrations of caring is the use of touch. However, for male nurses this aspect of nursing is often fraught with significant fear and anxiety because of the "discourses that have feminized touch and sexualized men's touch" (Harding, North, & Perkins, 2008, p. 88). Harding et al. (2008) posited that people have been conditioned to accept intimate touch by female nurses in the course of their providing nursing care. However, this same type of intimate touch by a male nurse is often uncomfortable for both the nurse and the patient and my lead to misunderstandings and misinterpretation. Tillman and Machtmes (2008) found that the gender stereotypes associated with men (e.g. sexual aggressors), and with male nurses (e.g. male nurses are

homosexual), often creates complex and contradictory patients situations which can lead to suspicions "that men are at the bedside for reasons other than a genuine desire to help others" (p. 24).

Nursing Education: Foundation for Gender-based Educational Barriers

Although much of the literature is anecdotal and many of the studies are qualitative using small samples, the studies infer that nursing education may be perpetuating traditional gender-role stereotypes and inadvertently creating unfriendly environments for male nursing students (Keogh & O'Lynn, 2007; McMillian et al., 2006). Grady et al. (2008) reported that the perception of gender bias within schools of nursing is a factor in the reluctance of many men to enter the nursing profession. Gender bias is almost inherent in schools of nursing because, "nursing faculty are composed of a gender-skewed, homogenous group, primarily women" (Grady et al., 2008, p. 314).

Retention Rates Lower for Male Nursing Students

Although drop-out rates vary by school and by geographical area, most authors agree that the drop-out or failure rate for male nursing students is much higher than for their female counterparts (Brady & Sherrod, 2003; Evans & Frank, 2003; McLaughlin, 2007; Stott, 2004; Wilson, 2005). Some schools report male nursing student attrition rates as high as 50% (Wilson, 2005). Wilson (2005) reported that over a three-year study period, the attrition rate for male nursing students was 55.5% compared with 45% for female nursing students (p. 221). Other studies have reported drop out rates for male nursing students as high as 85% compared with 35% for female students (Poliafico, 1998).

The NLN reported in their latest survey, that the percentage of men in nursing programs in 2008-2009 reached an all-time high of 13.8% (NLN, 2010). Yet currently men comprise only 7.9% of all nurses ("Male Nurses Break Through Barriers," 2011). These statistics would indicate that the drop-out or failure rate for male nursing students falls well within the 50% range. With drop-out rates of this magnitude, it is vitally important to understand the relationship between gender-based educational barriers and the struggles men face within schools of nursing.

Gender Bias and Gender-based Educational Barriers in Schools and Colleges of Nursing

The question of why men are struggling to succeed within schools of nursing is a complex one. Sullivan (2000) reported that the number of men in nursing will continue to remain low unless schools of nursing address the critical issues of gender bias and gender-based learning barriers. Although there have been several recent campaigns to recruit more men into nursing (e.g. "Discover Nursing" campaign by Johnson & Johnson, and the Oregon Center for Nursing campaign, "Are You Man Enough to Be a Nurse?"), little attention has been given to reasons why men are not being successful in schools of nursing (Meadus & Twomey, 2007).

Unlike many professions that have been dominated by men (e.g. medicine), nursing has been reluctant to provide a gender-neutral image and an educational program that is free of gender bias (O'Lynn & Tranbarger, 2007, p. 173). The concept of gender-based educational barriers encompasses a wide range of topics and issues. To facilitate

the discussion of these important concepts, this section is divided into subsections that will discuss each of the identified gender-based educational barriers.

Overview of gender bias. Nursing education appears to be perpetuating gender bias and gender stereotypes and inadvertently creating unfriendly environments for male students (Keogh & O'Lynn, 2007; McMillian, et al., 2006; Sherrod, Sherrod, & Rasch, 2005). One of the most important studies related to the experience of male nursing students was completed by O'Lynn (2004). Following an extensive search of the literature, O'Lynn (2004) compiled a list of potential barriers faced by men in schools of nursing. These barriers included such items as different clinical experiences in obstetrics, lack of male faculty role models, no history of men in nursing presented in the curriculum, no opportunity to work with male nurses in the clinical setting, faculty referring to a nurse as she*,* and a feminine style of caring emphasized in the program (O'Lynn, 2004, p. 232).

The survey was mailed to a random sample of 200 male members of the American Assembly of Men in Nursing (AAMN) and current male Registered Nurses (RNs) from the state of Montana. The participants were asked to rate the barriers that were most prevalent and those that were most important. From the findings of this survey, O'Lynn (2004) developed a measurement tool called the Inventory of Male Friendliness in Nursing Programs (IMFNP), which was used to evaluate nursing programs in terms of their rate of male friendliness. O'Lynn found that "nursing education, as a whole, has failed to provide an environment optimally conducive to

attracting and retaining men as students and, thus, preparing men for the nursing profession" (p. 234).

Other studies have found similar gender-based educational barriers as well as some not identified in O'Lynn's (2004) study. Additional barriers identified include: (a) inadequate education and training to prepare men to care for female patients (Keogh & Gleeson, 2006), (b) assignment of patients which required the most physical strength (Keogh & O'Lynn, 2007), (c) tests and examinations which favor female students (Anthony, 2004), (d) fear of being considered unmanly (Stott, 2007), (e) more closely scrutinized and feeling under the microscope (Stott, 2007), (f) experiencing different performance and behavioral expectations (Stott, 2007), and (g) failure to recognize that men may have different methods of demonstrating caring behaviors and different styles of learning (Grady, et al. 2008; Stott, 2006).

A study completed in Canada examined the perceived acceptance of male students in an undergraduate nursing program (Bartfay & Bartfay, 2007). A survey tool was developed called the Perceived Acceptance of Men in Nursing Education (PAMINE), which consisted of 25 distinct questions, with the respondent indicating either *agree* or *disagree* (Bartfay & Bartfay, 2007, p. 34). The survey tool was validated through the use of a pilot study, an extensive literature search, and a review by a panel of experts. The PAMINE survey was found to have test-retest reliabilities of Cronbach's alpha of 0.93 and 0.87 respectively (Bartfay & Bartfay, 2007, p. 34).

The results of the survey demonstrated that the male nursing students had "high levels of perceived lack of acceptance in their educational nursing program… in

comparison to their female counterparts" (Bartfay & Bartfay, 2007, p. 36). In addition, the male nursing students encountered "more ridicule, social barriers, and stigmas for choosing to pursue a nursing program" (Bartfay & Bartfay, 2007, p. 36).

Additional nursing studies have confirmed that gender-based educational barriers are a real phenomenon which male nursing students are forced to overcome if they are to successfully complete a nursing program (Anthony, 2004; Bell-Scriber, 2008; Kelly, Shoemaker, & Steele, 1996; McLaughlin, Muldoon, & Moutray, 2010; Stott, 2006). Braun (2003) emphasized that the nursing curriculum is actually becoming more biased (p. 2). With a shortage of nursing faculty and very few male faculty role models, the nursing curriculum has a distinct feminine perspective that can create an unintentional bias (Braun, 2003, p. 2).

Bell-Scriber (2008) acknowledged that gender bias is pervasive within nursing education and that faculty are often unaware of their role in creating gender-based barriers. Nursing faculty often project "sex-biased behaviors" which are termed "micro-inequities" or "negative micro-messages" (Bell-Scriber, 2008, p. 148). These micro-messages can include "looks, gestures, tones, nuances, and inflection...which are driven by gender" (Bell-Scriber, 2008, p. 148). This qualitative study found that negative micro-messages can lead male students to feel discouraged and devalued.

In a large study (*n* = 498) conducted by the National Student Nurses' Association in conjunction with the Bernard Hodes Group, 56% of those surveyed experienced some type of gender-based educational barriers such as (a) being considered as uncaring, (b)

being assigned patients who required the most lifting, and (c) communication issues related to gender assumptions (Hodes Men in Nursing Survey, 2004).

Byrne (2002) identified six different types of bias that can be found in instructional material used in schools of nursing. These six different forms of bias include: (a) invisibility or omission, (b) stereotyping, (c) imbalance and selectivity, (d) unreality, (e) fragmentation and isolation, and (f) linguistic bias (Byrne, 2002, p. 810). An example of an invisible bias is the absence of any discussion of the roles played by male nurses in the history of nursing.

> When invisibility occurs in educational materials, or in real life, it teaches people from non-dominant cultures that they are less important and significant in society than people from dominant cultures. For example, the nursing profession traditionally has been made up of European/American women; therefore one must question whether male nurses are represented adequately in instructional materials. (Byrne, 2002, p. 811)

An example of stereotyping occurred at a hospital in the southeastern United States where the dressing rooms in the operating room area were labeled *Nurses* and *Surgeons* (Bryne, 2002, p. 811). This type of labeling assumed that all nurses were female and all surgeons were male.

Fragmentation and isolation bias can be found in nursing textbooks. This type of bias occurs when information about others (e.g. male nurse leaders) is placed in boxes at the side of the page or in separate chapters (Bryne, 2002, p. 813). When a group is

singled out to be on the fringe of the page, they are considered to be on the fringe of the dominant group (i.e. female nurses; Bryne, 2002, p. 813).

Sax (2008) published a comprehensive analysis of gender issues on college campuses and universities. The findings in this book are based on a sample of approximately 17,000 male and female students from 200 different institutions. The findings that are most relevant to the issue of gender bias within schools of nursing include:

- Women tend to choose sex-stereotyped majors and career (e.g. nursing, education).
- In some careers, the gender gap has disappeared over time. These careers have been those that were once male dominated (e.g. law and medicine). This does not hold true for careers traditionally dominated by women (e.g. nursing and elementary education).
- "No career is inappropriate for their gender but the student ought to prepare for the realities that they may face in their chosen field" (Sax, 2008, p. 41).
- Women's life goals demonstrate a much stronger commitment to improving the lives of others.
- Findings show that the overall college experience has a greater influence on men than women.

- Men who major in scientific fields demonstrate a decrease in their scholarly confidence, which may be the result of more stringent grading in these fields. Nursing would be included in this category.
- "Men are more positively impacted by the presence of more female faculty" (Sax, 2008, p. 101)
- Men who are enrolled in the social sciences or in women's studies, have a decreased sense of physical well being. The thought is that men may experience this negative effect because of their status "as a gender token" (Sax, 2008, p. 111).
- Men's emotional health is enhanced at campuses with greater numbers of female faculty. Both men and women view female faculty as "more supportive, approachable and sensitive than male faculty" (Sax, 2008, p. 115).

Sax's (2008) findings demonstrate that men and women respond to the overall college experience in very different ways. This large scale study is important because it may provide some insight as to why male nursing students struggle to succeed in schools of nursing. Although the research indicates that the presence of more female faculty can have a positive emotional effect on male students, it also indicates that men who are enrolled in social science programs such as nursing, demonstrate a decreased level of confidence in their own ability to succeed (Sax, 2008).

Lack of male faculty role models and mentors. O'Lynn (2004) has identified numerous gender-based educational barriers within schools of nursing, but two of the

most important barriers include (a) a lack of male nurse mentors and (b) a shortage of male nursing faculty. Bartfay and Bartfay (2007) noted that Canadian nursing schools have historically hired very few male instructors due to the belief that it is not proper for men to teach women how to nurse (p. 33). Although the literature is not clear whether this hegemonic attitude prevails within the United States, the significant lack of male nursing faculty would lend credence to this belief.

Some schools of nursing have recognized that the lack of male role models can have negative effects on male nursing students. To help overcome this issue, some schools such as the University of Iowa's College of Nursing, have implemented mentoring programs for male nursing students in an attempt to decrease attrition rates (Fenkl, 2006). Stott (2007) interviewed eight male baccalaureate nursing students and found that all the participants expressed the need to interact on a regular basis with male nursing role models, both faculty as well as male nurses who have been well-established in the profession. The study participants felt that by talking with other male nurses, they would learn coping skills to help them through the more difficult clinical experiences (Stott, 2007, p. 330).

Social isolation and tokenism within colleges of nursing. Men in nursing often find themselves on the outside, looking in. They wonder why other helping, caring professions such as emergency medical technicians, paramedics and physicians, do not seem to experience the same levels of discrimination as do male nurses (Haas, 2006, p. 14). Studies continue to demonstrate that men who practice nursing experience issues regarding tokenism, social isolation, being viewed as *muscle* rather than an accepted

member of the team, a milieu of exclusionism, role stress related to the performance of intimate physical care, fear of accusations of inappropriate sexual contact, the need to justify their career choice, and concern over the public image of male nurses as homosexual (Brady & Sherrod, 2003; Crigger, 2007; Lou et al., 2007; O'Lynn, 2004).

For most male nursing students, little has changed from some of the earliest studies (Egeland & Brown, 1989; Kanter, 1977; Kelly et al.,1996). Heikes (1991) found through in-depth interviews with 15 male nurses, that they "experience the interaction dynamics associated with tokenism" and the effects of being a token minority increases work-related stress (p. 398). Fenkl (2006) noted that a "token" can be defined as a person who is in a group where he/she represents less than 15% of the dominant group (p. 39). Since male nurses comprise 7.9% of the total population of nurses and male nursing students comprise approximately 13.8% (NLN, 2010), men are considered as tokens within the nursing profession. Those who are considered to be tokens, experience "additional pressures...including high visibility and stronger pressure to perform" (Fenkl, 2006, p. 39).

In a large qualitative study, Simpson (2004) affirmed earlier studies that *tokens* often experience at least three processes which can be detrimental to their work or school experience. These processes include, (a) high visibility with increased performance issues, (b) polarization, "which occurs as differences between the dominant group and tokens are exaggerated leading to separation and isolation", and (c) assimilation, which occurs when tokens are forced to fit into the stereotypical role or task (Simpson, 2004, p. 6).

Gender differences in learning and communication styles. Male nurses and male nursing students face unique communication challenges in the work setting and in the classroom. Because the vast majority of nurses are female, men encounter communication patterns which are uniquely feminine (Yoshimura & Hayden, 2007). Female speech patterns "emphasize more of the relational nature of communication, using verbal and nonverbal messages together to communicate information about equality, support, and relational status, while male communication patterns tend to focus on instrumental goals…and accomplishing tasks" (Yoshimura & Hayden, 2007, p. 111).

Another source of frequent miscommunication is in the area of nonverbal behaviors. Women are more skilled and generally have more experience working in the nonverbal environment, and thus often have less difficulty conveying their care and concern for a client through nonverbal communication (Yoshimura & Hayden, 2007, p. 113). Nilsson and Larsson (2005) described the female nurses' communication style as "roundabout" meaning they fail to "get to the point" (p. 182). This style of communication is often frustrating for male nurses who tend to take a more direct route without all the "detours and side trips" (Nilsson & Larsson, 2005, p. 182).

Ellis, Meeker, and Hyde (2006) conducted a qualitative study that looked at men's perceived educational experience in a baccalaureate nursing program. The participants were male students in their last semester of nursing school. The study validated the communication struggles male nursing students face when their communication styles are misunderstood by their female counterparts or female faculty members. Communication differences were cited as one of the major themes identified within the study. Study

participants viewed their female classmates as “caring, organized, and helpful, but also moody and overly dramatic” (Ellis et al., 2006, p. 524). The study participants were often frustrated with the emphasis on the psychosocial aspects of nursing and felt that “men get to the point more quickly, and women take much longer when discussing a topic” (Ellis et al., 2006, p. 524). Because all the nursing faculty were women, the male study participants felt that the test questions, classroom discussion, and the entire curriculum was “set up by women for women” and they often had difficulty “fitting in” (Ellis et al., 2006, p. 524).

Male student nurses face significant challenges in the classroom and in the clinical setting. Because women far out number men in the nursing profession, the patterns of communication and behavior are uniquely feminine and the differences in interpretations and assumptions can cause miscommunication. These miscommunications can often lead to “hurt feelings, tense relationships with coworkers and clients, stress, burnout, and work-related mistakes” (Yoshimura & Hayden, 2007, p. 104). For the male nursing student, miscommunications can result in poor academic performance and high drop-out rates.

Inadequate educational preparation for male students to provide intimate care for female patients. Providing intimate care for both male and female patients is a significant source of stress for most male nursing students, yet it is a subject that is rarely discussed by nursing faculty. In a qualitative study of the experiences of male nursing students during their maternal-child clinical rotation, Patterson and Morin (2002) found that male students feared that their nursing care would be “perceived by patients as

something other than professional behavior" even though intimate touching was part of routine post-partum assessment and care (p. 269).

Evans (2002) studied the experiences of male nurses and the way gender structured their work. Although touch was acknowledged to be an important aspect of caring for all nurses, the male nurses reported that touch did not come as naturally for them as for their female coworkers (Evans, 2002, p. 443). Male nurses understand that intimate touching in the course of providing nursing care, is fraught with danger. The male nurses who participated in the study (Evans, 2002), feared that they might be accused of "inappropriate behavior or sexual molestation" (p. 444). Evans (2002) emphasized the important role that nurse educators should play in teaching strategies that male nurses can use to minimize the risk of being wrongfully accused of inappropriate touch (p. 444).

Inoue, Chapman and Wynaden (2006) studied the emotional experiences of male nurses, when providing intimate care for female patients. The majority of the participants reported that providing intimate care was challenging and they often used the strategy of humor to reduce their own stress and embarrassment as well as the discomfort that the client might be experiencing (Inoue et al., 2006, p. 564). The researchers also found that most male nurses did not receive any formal education on the appropriate use of humor or other effective strategies which could be used to lesson the emotional discomfort men experience when providing intimate physical care for female clients (Inoue et al., 2006, p. 565).

Perpetuation of gender-based barriers within nursing education. Nursing faculty often lack sufficient knowledge about learning theories and the concept of gender-based educational barriers, and fail to implement a gender-neutral curriculum. Many nurse educators began their teaching careers with minimal or no teaching experience, and few have taken any formal educational theory courses (Foley et al., 2003). Matthew-Maich et al. (2007) noted that the assumption in nursing education has been "if you can do it, then you can teach it" (p. 76). Nursing education seems to be steeped in teacher-centered pedagogy with few attempts to alter the style of teaching to meet the needs of an emerging workforce; regardless of the gender of that workforce (Brady & Sherrod, 2003; Carr, 2008).

McMillian et al., (2006) performed a randomized descriptive study to determine the acceptance of male nurses by female nurses. They found a continued deficit in the acceptance of male nurses by some female nurses and they posited that these attitudes have their roots in the female nurses' educational programs. "Elimination of sexism and discrimination against male nurses might depend upon nursing education…which includes the elimination of educational practices that reinforce social and gender-related segregation" (McMillian et al., 2006, p. 105).

A common theme throughout the literature is that nurse educators play a significant role in perpetuating the gender-based barriers for male nurses. O'Lynn (2007) reported that most of the gender-based educational barriers "are created and influenced directly by nursing academia and individual schools of nursing" (p. 173). In addition, there is currently no evidence to suggest that schools of nursing are evaluating student

outcomes in terms of gender. With drop-out rates for male students approaching 50% in some schools, one might assume that nurse educators would be looking to find solutions to this dilemma (Ellis et al., 2006). O'Lynn and Tranbarger (2007) proposed that the lack of action by schools of nursing may be a result of a misplaced belief that male student attrition is due to "poor academic skills or discontent" (p. 184).

In a qualitative study by Bell-Scriber (2008), extensive classroom observations demonstrated that male nursing students experienced a much "chillier" classroom environment that their female colleagues (p.147). This "chilly" climate was the result of (a) feelings of discrimination, (b) feelings that the nursing faculty "do not want men to become nurses", (c) classroom examples during lecture where the nurse was habitually referred to as *she,* and (d) a general overall feeling that some of the nursing faculty "would like to get rid of the men" (Bell-Scriber, 2008, p. 147).

Ellis et al. (2006) interviewed male nursing students and determined that the majority felt that nursing school was something to "survive" and their perception was that they received very little support from the nursing faculty (p. 524). Some male students admitted that they would not have entered the program if they had known how hard it was. "In a way, it's a lot like I hear the military's like: tear you down and build you back up. Well, we're still waiting on the building back up" (Ellis et al., 2006, p. 524).

As previously mentioned, one area within the nursing curriculum that creates the greatest amount of fear and anxiety among male students is providing intimate care for female students. Harding et al. (2008) recognized the importance of intimate touch within the clinical setting as being integral to the role of nursing. However, for men,

touch has become sexualized by the media, movies, books, and even jokes (Harding et al., 2008, p. 89). The authors conducted a large qualitative study which looked at the issues men face when providing intimate care and concluded that male nursing students often feel "vulnerable" and they fear that they will be accused of "sexual misconduct"(Harding et al., 2008, p. 94). The study concluded that male students experience considerable anxiety and stress when providing intimate care for female patients and that there "is a lack of education to support men in incorporating appropriate touch into their nursing work" (Harding et al. 2008, p. 99).

Other studies have reported similar gaps in nursing education with nursing faculty failing to recognize the unique learning needs of the male students regarding intimate care for female patients. This issue is especially problematic during the maternal/newborn clinical rotation. Male nursing students have reported receiving minimal or no formal education regarding coping strategies to manage difficult clinical situations which included learning safe and effective approaches to providing intimate care for female patients, especially during the obstetrical clinical rotation (Bell-Scriber, 2008; Harding et al., 2008; Inoue et al., 2006; Roth & Coleman, 2008). Often male students are left to learn these skills "on the job" or from other male nurses who have graduated before them (Inoue et al., 2006, p. 566). O'Lynn (2004) reported that 49% of the respondents in a qualitative study which looked at gender-based barriers reported that they received no guidance from the nursing faculty regarding touch.

In a small qualitative study of 11 male nurses, Keogh and Gleeson (2006) concluded that educational barriers still exist for male students, especially in the area of

caring for female patients. All the participants in the study reported a lack of any formal education on the use of caring touch, effective methods of providing safe intimate care for female patients, and coping strategies for managing the anxiety associated with these clinical situations (Keogh & Gleeson, 2006, p. 1174).

Theoretical Framework

Gender from a Social Constructivist Approach: Defining Masculinity

Understanding gender from a social constructivist approach means that gender only has meaning in the context of interpersonal interactions. Gender "does not reside in the person, but rather in social transactions" (Courtenay, 2000, p. 1387). Constructivism is based on the concept that "knowledge and beliefs are formed within the learner," and it emphasizes that individuals develop meaning based on their previous knowledge and life experiences (Bohan, 1993; Lambert et al, 2002, p. 26). Using a constructivist approach means that the concept of gender is dynamic and is continually changing according to the context of the situation and the experiences of those involved in the interaction (O'Lynn and Tranbarger, 2007, p. 170). West and Zimmerman (1987) described gender as that of "doing" which is "carried out in the virtual or real presence of others...as an emergent feature of social situations" (p. 126).

O'Lynn (2007) recognized the importance of viewing gender from a social constructivist perspective because "gender is an active, rather than passive phenomenon…it is something people do, not something that people are" (p. 171). Using a constructivist lens to define gender allows men, and specifically male nurses, to be free of the social stereotypes which are defined by one's biological sex (Courtenay, 2000).

Defining gender and specifically masculinity from a social constructivist lens also provides a more acceptable framework for men who choose predominantly female professions. Bohan (1993) emphasized that a constructivist approach recognizes that gender is not a character "trait" but rather a construct of interactions and "transactions that are understood to be appropriate to one sex" (p. 7).

Defining *masculinity* from a social constructivist perspective implies that one moves beyond the stereotype of hegemonic masculinity. Connell (2005) defined hegemonic masculinity as "the configuration of gender practice which embodies the currently accepted answer to the problem of the legitimacy of patriarchy, which guarantees (or is taken to guarantee) the dominant position of men and the subordination of women" (p. 77). Hegemonic masculinity is viewed as the "socially dominant gender construction that subordinates femininities as well as other forms of masculinity" (Courtenay, 2000, p. 1388). The "other forms of masculinity" refer to homosexuality (Courtenay, 2000, p. 1388). Connell (2005) noted that hegemony places the homosexual male as subordinate to the heterosexual male, in the same position as a female (p. 78). To adhere to a hegemonic definition of masculinity is to believe that men have power and authority over women, both economically as well as socially, and all interactions between the genders is colored by this definition (Gransee, 2005).

Loughrey (2008) studied the gender role perceptions of male nurses in Ireland. He agreed with Connell (2005) that hegemonic masculinity "is the form of masculinity that society perceives as the most respected" (p. 1329). With the current view of

masculinity as defined from a hegemonic perspective, selecting a field such a nursing will continue to be a difficult choice for most men (Gransee, 2005).

Another viewpoint of masculinity demonstrates that men view their own masculinity in terms of other men or as the direct opposite of femininity (Courtenay, 2000). This view of masculinity can create role stress and role strain for men who enter a field such as nursing, which is defined in terms of feminine characteristics.

Masculinity can also be viewed from a "trait perspective," with designated traits that are attributed to males and specific traits attributed to females (Levant & Pollack, 1995, p. 130). Levant and Pollack (1995) described various self-concept rating scales which can be administered to identify men who possess specific personality traits which are generally attributed to men (e.g. physical strength, more aggressive behaviors, task-oriented). Some authors argue, however that this is a very simplistic approach and that there isn't one male standard or group of traits which are universally accepted. Harding et al. (2008) emphasized that reducing masculinity down to specific traits such as "achievement orientation, assertiveness, and decision-making ability" creates a model of essentialism (p. 90). Bohan (1993) posited that an essentialist model "portrays gender in terms of fundamental attributes that are conceived as internal, persistent, and generally separate from the on-going experience of interaction with the daily sociopolitical contexts of one's life" (p. 7). The essentialist view of masculinity and gender as a whole has been disavowed by many in the field of gender research (Connell, 2005; Harding et al., 2008).

Male Gender Role Stress and Role Strain

Role stress and *role strain* are terms which are used interchangeably throughout this study. These two terms refer to any real or perceived emotional distress which results from social isolation and gender role stereotypes in a male who is in a predominantly female profession (Holroyd et al., 2002; Keogh & O'Lynn, 2007). An example of role stress or role strain is the discomforts many male nurses face when battling the stereotype that male nurses are generally homosexual (Loughrey, 2007).

Sex-role stereotypes, gender discrimination, and role strain are among the many serious issues facing male nurses in today's workplace. Holroyd et al. (2002) reported that the feminine characteristics of receptivity, nurturing, and caring; are viewed as essential for nursing, and that the stereotypical male characteristics of aggression, dominance, and ambition are considered in opposition to the qualities valued in the nursing profession (p. 295). The public image of the nurse as a self-sacrificing, caring, nurturing female has not changed over the past few decades (Fealy, 2004; Haas, 2006; Holroyd et al., 2002; Smith, 2006). This phenomenon is globally endorsed and has created barriers and job discrimination issues for many men who are attempting to embrace nursing as their career path. Holroyd et al. (2002) reported that few men in China choose to enter the nursing profession, and those who do, "have had to distance themselves from their female colleagues in order to legitimize their employment in female jobs" (p. 295). In Ireland, Fealy (2004) noted that the work of nursing has remained linked to the work of women, namely, "the nurse *was* a woman" (p. 654).

Tzeng, Chen, Tu and Tsai, (2009) compared gender-based differences in levels of role strain among nursing students in Taiwan. The results demonstrated that male nursing students face greater role strain than their female counterparts, especially in the obstetrical setting. They also found that male students "had significantly higher levels of role conflict, role ambiguity, and role incongruity than their female colleagues" (Tzeng et al., 2009, p. 5). A second quantitative study in Taiwan demonstrated a significant correlation between the level of role stress among male nursing students and their intention to quit nursing (Lou et al., 2007, p. 50). The authors concluded that the role stress was directly related to the "ingrained stereotype of nursing as a profession for women" (Lou et al., 2007, p. 50). Other researchers have confirmed that gender role conflict and role stress has a negative impact on male nursing students and their ability to successfully complete a nursing education program (Callister, Hobbins-Garbett, & Coverston, 2000; Crigger, 2007; Egeland & Brown, 1989; Gransee, 2005; O'Neil, 2008; Simpson, 2004).

Stott (2004) found that issues such as role strain, minority status or tokenism, and stereotypical attitudes of the public as well as other female nursing colleagues; are perceived to be at the heart of the struggles and conflicts male nursing students experience. Recent studies (Keogh & O'Lynn, 2007; O'Lynn, 2004; Smith, 2006; Stott, 2003) have indicated that male nursing students are experiencing role stress related to the perception that nursing is primarily a feminine profession.

Wilson (2005) studied a group of male nursing students in an undergraduate nursing program in Australia. He wanted to understand the unique experiences of men in

a female-dominated profession. During the participant interviews, he found a theme that many felt "low self confidence" regarding their ability to successfully complete the program (Wilson, 2005, p. 227). These feelings of low self confidence were directly related to gender role conflict as evidenced by one student's comment: "It's like they always want me to prove that even though I'm doing nursing I'm not homosexual and I am a man" (Wilson, 2005, p. 227).

Current as well as past literature is replete with examples of role strain and gender role conflict experienced by male nursing students. Muldoon and Reilly (2003) used a quantitative approach to look at career choices in relation to gender-based psychological barriers. The study demonstrated that male students who entered nursing "often used strategies to separate themselves from traditional nursing images", often choosing specialties within nursing that were considered more masculine in nature such as surgery, trauma, and mental health (Muldoon & Reilly, 2003, p. 99).

Goode (1960) was one of the first to study the theory of role strain. He concluded that everyone has various "role relationships" which can conflict with each other. The obligations of one role can take away or interfere with another role, thus creating conflict and role strain. While these role performances accomplish whatever is done to meet the needs of the society, nevertheless the latter may not be adequately served. It is quite possible that what gets done is not enough, or that it will be ineffectively done (Goode, 1960, p. 494). Goode emphasized that a certain amount of role strain is normal for all individuals, but that each person will utilize strategies such as "role bargaining" to reduce the role strain (p. 495). For male nurses, reducing role strain

may result in accepting positions in areas of nursing that are more acceptable for men and avoiding such areas as obstetrics or midwifery which are considered to be primarily the domain of women (Callister et al., 2000).

Resiliency Theory

If male nursing students continue to experience gender bias, gender-based educational barriers, and gender stereotyping resulting in increased role stress and role strain; the question arises as to why some male nursing students are able to succeed despite these barriers. The answer may be that certain intangible factors cause some men to quit or fail, and others to embrace the nursing profession and be successful. One such intangible factor may be the concept of resilience. This elusive quality called "resilience" can make the difference between those who suffer hardship and adversity and often gain new strength because of it, and those who falter and flounder in the face of hardships and eventually give up. Coutu (2002) reported that resilience is even more important than education, experience, and training; and that it is the single most important factor that can differentiate between those who succeed and those who fail (p. 47).

Resilience has been defined many different ways. Jacelon (1997) described resilience as "the ability of people to 'spring back' in the face of adversity" (p. 123). Tusaie and Dyer (2004) described resilience as a "combination of abilities and characteristics that interact dynamically to allow an individual to bounce back, cope successfully, and function above the norm in spite of significant stress or adversity (p. 3). Gillespie, Chaboyer, and Wallis (2007) viewed resiliency as "the capacity to transcend adversity and transform it into an opportunity for growth" (p. 125).

The historical roots of resiliency can be found within many fields of study (e.g. psychology, psychiatry, trauma studies, education, social work, epidemiology and nursing). Some of the earliest studies were longitudinal, and focused on children who were considered to be at risk due to adverse situations such as poverty and severe parental mental health issues (Werner, 1982). Werner (1982) found that 72 out of 200 at-risk children were able to thrive and do well, despite their adverse living environment. The researchers found that these children possessed certain characteristics that made them more resilient and able to successfully cope with adversity.

Tusaie and Dyer (2004), identified two major discourses which they feel accurately define resilience, "the psychological aspects of coping and the physiological aspects of stress" (p. 4). The field of psychology focuses on the body's ability to successfully cope with adverse stressors, and the physiological approach recognizes that whenever the body is under attack, it will always strive to re-establish homeostasis (Atkinson, Martin, & Rankin, 2009; Tusaie & Dyer, 2004). Atkinson et al.(2009) emphasize that resilience is dynamic and that resilient individuals are continually striving "to re-establish equilibrium following an adverse experience" (p. 139). Psychologists point out that resilient individuals are not immune or hardened by adverse events in their life, but they have learned effective coping mechanisms that allow them to return their body to a state of homeostasis (Atkinson et al., 2009, p. 139).

Taking a holistic approach, much of the research has focused on two main types or characteristics that can assist an individual "to thrive from adversity", namely intrapersonal and environmental factors (Tusaie & Dyer, 2004, p. 4).

Intrapersonal factors, which some authors call personality traits, attributes, or protective factors; include such items as optimism or positive emotions (Tugade & Fredrickson, 2004), intelligence (Jacelon, 1997), creativity with a sense of humor (Coutu, 2002), education (Jacelon, 1997), wide-ranging interests or personal goals (Connor, 2006), hope (Gillespie et al. 2007), ability to adapt to change (Coutu, 2002), socially responsible (Connor, 2006), tolerant (Coutu, 2002), belief in a higher power (Richardson, 2002), confidence (Gillespie et al. 2007), and a strong self-image or self-efficacy (Gillespie et al. 2007). Coutu (2002) posited that resilient people generally possess three main characteristics: "a staunch acceptance of reality; a deep belief, often buttressed by strong held values that life is meaningful; and an uncanny ability to improvise" (p. 48).

The environmental factors that have been identified as influencing resiliency include "perceived social support or a sense of connectedness and life events" (Tusaie & Dyer, 2004, p. 4). Tusaie and Dyer (2004) emphasized that the individual cannot be a "passive recipient of social support" but rather an active and dynamic partner (p. 4). Other environmental factors could include the number or types of events which were perceived by the individual as being "bad life events", as well as the individual's interaction with the environment (Tusaie & Dyer, 2004, p. 5; Atkinson et al., 2009).

More recent studies have demonstrated that resilience cannot be simply explained by a given set of personality traits, but rather it consists of a complex family of many different factors that provide a level of protection against threatening events (Atkinson, et al. 2009, p. 139). However, no matter how one defines resilience, there is universality of thought that resilience is a dynamic process that changes and grows or diminishes over

time and across the various stages of life's continuum (Coutu, 2002; Jackson, Firtko & Edenborough, 2007; McGee, 2006; Tusaie & Dyer, 2004). As the debate continues regarding the exact nature of resilience, two important factors need to be considered, (a) the best method for teaching resilience, and (b) the best method for measuring resilence.

Teaching resiliency. Although some early theorists proposed that resiliency was a product of genetics, that is, one had to be born resilient (Flach, 1988; O'Connell-Higgins 1994) many psychologists now believe that individuals are able to develop the skills of resiliency over the course of their lifetime and can become remarkably more resilient (Coutu, 2002). Some argue that one can only develop resiliency by first experiencing adversity and that it is difficult to teach without its antecedent (Coleman & Ganong, 2002; Richardson, 2002).

Although Richardson (2002) believed that resilience is developed over time as individuals are exposed to various life stressors, he also subscribed to the theory that everyone has the potential to develop resilience and that there is an inner force that can move one to "seek self-actualization, altruism, wisdom, and harmony with a spiritual source of strength" (p. 313). The primary goal then is to develop a method for motivating individuals to move toward "resilient reintegration" and to be able to thrive through adversity (Richardson, 2002, p. 313).

Jackson et al. (2007) discussed the need to develop resiliency skills within the nursing profession. Because nurses are often faced with very difficult and emotional situations; learning how to become more resilient can be an essential tool nurses can use to reduce their own vulnerability and help them cope effectively with stressful situations.

Tugade and Fredrickson (2004) suggested that everyone has the potential to become resilient individuals, but the development of resiliency skills is dependent upon their life experiences and their use of positive emotions.

Tugade and Fredrickson (2004) studied the physiological effects as well as the psychological effects of resiliency as measured by positive emotions. They found that positive emotions actually helped the participants achieve quicker cardiovascular recovery from “negative emotional arousal” (p. 325). The study also demonstrated that highly resilient individuals (i.e. those with strong positive emotions) viewed a stressful task as less threatening than those who possessed less positive emotions.

In a second study by Tugade and Fredrickson (2004) they were able to conclude that those individuals who scored low on the positive emotion scale were not necessarily destined to a lifetime of negative consequences from adverse situations. Those participants in the study who were considered to have “low resilience” could benefit from resiliency education which focused on the development of positive appraisals and positive emotions (Tugade & Fredrickson, 2004, p. 328).

Resiliency education is based on the assumption that one is able to help individuals develop and improve their life resiliency skills. Richardson (2002) emphasized the importance of education to help individuals learn better coping skills, change management skills, avoidance of destructive behaviors, and methods to return the body back to physiological and psychological homeostasis. Atkinson et al. (2009) reported that developing resiliency skills is important not only to help individuals cope with past adversity, but also to be prepared to face future trauma.

Creating pedagogy to teach resiliency skills has resulted in the development of numerous resiliency theory models (e.g. Antecedents Model, Gillespie et al., 2007; The Resiliency Model, Richardson, 2002; Evolution of the Construct of Resilience, Tusaie & Dyer, 2004). Although these models emphasize that individuals are capable of learning resilience skills, similar to the way one learns the techniques of coping and stress management; there is no universally accepted method or curriculum content for teaching resilience.

Measuring resiliency. The literature is replete with instruments that can be used to measure and assess resiliency factors. Many of the tools were developed for use with children and adolescents and have been used to test their ability to overcome abuse and neglect (Connor, 2006; Takviriyanun, 2008; Tusaie & Dyer, 2004). Although numerous tools have been developed, the actual measurement of resilience has been challenging due to the following three factors: (a) The concept of resiliency lacks a standard definition and the instruments have been designed to measure certain characteristics that may or may not be a part of every definition. (b) Many tools have been developed and tested only for certain age groups, and (c) The majority of the instruments have been used in qualitative studies and therefore lack a substantive quantitative statistical evaluation.

The inability to determine a common definition of resilience has lead researchers to develop such variations as the “Hardiness Scale” (Bartone, 2007) which was developed to measure certain personality styles that were related to the concept of resilience and the ability to perform well in stressful situations (p. 943). The concept of “hardiness” refers to “persons who have a high sense of life and work commitment,

greater sense of control, and are more open to change and challenges in life" (Bartone, 1995, p. 1). This scale was used with Army Reservists in the Gulf War to evaluate their ability to cope with highly stressful war-related situations.

Kammeyer-Meuller, Judge, and Scott (2009) took a different approach by looking at "Core Self-Evaluations" as a way of determining why some individuals appear to view life in a more positive manner. This research focused on job satisfaction and the findings suggested that employers would do well to hire individuals that scored the highest on the core self evaluations measures. Bono and Judge (2003) studied the three personality traits (i.e. neuroticism, self-esteem, and locus of control) that have been identified as the core self evaluations (p. S-5). They found that individuals who possessed strongly positive core self-evaluations were more likely to be successful in their careers (Bono & Judge, 2003, p. 27).

Examples of the more common instruments that have been used to measure resiliency include: (a) The Brief COPE (Carver, 1997), (b) The Ego-Resilience Scale (ER89; Block & Kremen, 1996), (c) The Resilience Scale (RS; Wagnild & Young, 1993), (d) The Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), (e) The Resilience Quotient (RQ; Reivich & Shatte, 2002), and (f) The Brief Resilience Scale (BRS; Smith et al., 2008). These various scales range from nine items up to 72 items and each one measures slightly different components of resiliency.

For the purpose of this study, the Brief Resilience Scale (BRS) was used (Smith et al., 2008). This tool was selected because it is simple to use (i.e. consists of only six questions using a 5-part Likert scale) and it was developed to measure one's ability to

"bounce back or recover from stress" (Smith, et al., 2008, p. 194). The definition of resilience as the ability to bounce back is defined by Smith, et al. (2008) as one's ability to return "to the previous level of functioning" (p. 194). The authors contended that other resilience tools have primarily focused on behavioral traits that help individuals cope with difficult situations such as some type of trauma; or measures that assess resources that promote resilience or positive adaptation (Smith et al, 2008; Ahern, Kiehl, Sole, & Byers, 2006). The BRS was tested using four separate samples. Two samples consisted of students, one undergraduate and one graduate. The other two samples were health-related groups consisting of a group of cardiac rehabilitation patients and a group of women with fibromyalgia. The BRS was found to have Cronbach's α ranging from 0.81 – 0.91, demonstrating strong internal consistency. The test-retest reliability demonstrated a strong level of agreement with a correlation coefficient of 0.69 for one month "using 48 participants from Sample 2 and 0.62 for three months in 61 participants from Sample 3" (Smith et al., 2008, p. 197).

Justification for Use of a Quantitative Research Design

The use of a quantitative approach to measure the issues and concerns of gender-bias and gender-based educational barriers is well supported in the literature (Ahmad & Alasad, 2007; Bartfay & Bartfay, 2007; Callister et al., 2000; Crigger, 2007; Egeland & Brown, 1989; Ekstrom, 1999; Foss, 2002; Hicks, 1996; Holroyd et al., 2002; Keogh & O'Lynn, 2007; Meadus & Twomey, 2007; McLaughlin et al., 2010; McMillian et al., 2006; Muldoon & Reilly, 2003; McRae, 2003; O'Lynn, 2004).

Some of the most significant studies include those by O'Lynn (2004), Keogh and O'Lynn (2007), and McRae (2003). O'Lynn (2004) utilized a quantitative approach to identify gender-based educational barriers that exist in schools of nursing, as well as the perceived importance of these barriers. This research helped to validate and refine the survey tool which O'Lynn (2004) developed called the Inventory of Male Friendliness in Nursing Programs (IMFNP). This tool was amended and revalidated in a later study which was completed in Ireland (O'Lynn & Tranbarger, 2007, p. 193). The results of these two studies were very similar despite the cultural differences. The studies recognized that male nursing students continue to face challenges that are unique to their gender in the areas of "feminist paradigm in nursing education, lack of male role models and isolation of male students, different treatment for male students during clinical placements, different styles of communication among men and among women, and issues surrounding touching and caring" (O'Lynn & Tranbarger, 2007, p.195).

Another important study by McRae (2003) looked at three large samples. One sample consisted of 599 licensed male nurses in Massachusetts, the second sample included 337 nurses who were members of the Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN), and the third sample was a group of 130 pregnant women. This quantitative study revealed that "98.5% of the nurses who had worked with male Registered Nurses in the clinical setting supported the entry of men into the specialty of obstetrical nursing" (McRae, 2003, p. 171). Not only was this finding surprising, but the study also revealed that nurse educators were the ones who were much less likely to "have positive perceptions of men in obstetrical nursing roles"

(McRae, 2003, p. 171). This study validates the perception that nursing faculty play an important role in perpetuating gender-based educational barriers for male nursing students.

The use of a quantitative approach to study resiliency is also well supported in both current and past research studies (Ahern et al., 2006; Bradham, Dalme, & Connor, 2006; Connor & Davidson, 2003; Dolbier, Smith, & Steinhardt, 2007; McCalister, Dolbier, Webster, Mallon, & Steinhardt, 2006; Singh & Yu, 2010; Smith, Dalen, Willins, Tooley, Christopher, & Bernard, 2008; Smith, Tooley, Christopher, & Kay, 2010; Smith, Tooley, Montague, Robinson, Cosper, & Mullins, 2009; Thompson, 1990; Tugade & Fredrickson, 2004 Vaishnavi,; Campbell-Sills & Stein, 2007).

Significant studies in the area of resilience include those by Smith, et al. (2008) which validated the BRS and the concept of resilience as the ability to bounce back and recover from stress. Ahern et al. (2006) reviewed and evaluated six different instruments that have been used to study various aspects of resilience and hardiness. This study provided guidance for future researchers as to the type of instrument that would be most appropriate for a given population. Tusaie and Dyer (2004) looked at the historical development of the concept of resilience and provided a helpful overview of the development of the construct of resilience based on a combined physiological and psychological approach. Coutu (2002) and McAllister and McKinnon (2008) emphasized that it is possible to teach individuals how to be resilient. This important concept can serve as the foundation for future studies that compare the most effective methods for teaching this valuable construct.

Conclusion and Summary

Common Themes

The literature review revealed several common themes which serve to underscore the primary issues regarding gender-based educational barriers:

1. The image of nursing as a primarily feminine profession has prevailed throughout the decades and although the number of men in nursing has increased, they struggle in schools of nursing and drop out or fail at significantly higher numbers than female nursing students. In addition, the feminization of nursing is a global phenomenon.
2. The presence of gender-based educational barriers within schools of nursing has been well documented; and these barriers have created significant stress, role strain, and social isolation for male nursing students who often have difficulty achieving academic success.
3. Nursing faculty are often unaware of the gender-based educational barriers that exist within their individual schools of nursing and often perpetuate these gender stereotypes by failing to understand that men differ from their female counterparts in the ways they demonstrate caring. In addition, nursing faculty often fail to recognize that male students have unique learning needs when it comes to providing intimate care for female patients.
4. Gender bias is also present within the workplace for male nurses and may account for the increased turnover rate by male nurses who leave the profession at higher rates than their female coworkers.

5. Men and women are affected very differently by the overall college experience and this difference is generally unrecognized by faculty.
6. Those individuals who are considered to be resilient have the ability to bounce back from difficult or stressful situations and are somehow able to maintain their equilibrium. The concept of becoming resilient is a skill which can be taught and learned.

Gaps in the Literature

Many of the studies related to gender bias within nursing education have been qualitative in design using small convenience samples which limits the ability to make meaningful generalizations (Brady & Sherrod, 2003; Ferreira, 2007; Lou et al., 2007; Porter-O'Grady, 1995; Sherrod et al., 2005). The primary quantitative study by O'Lynn (2004) was the basis for the development and validation of the IMFNP tool. This study used two samples of male nurses; one was selected from a list of male nurses who were licensed in the State of Montana, and the second sample included members of the American Assembly of Men in Nursing (AAMN). In both samples the participants were asked to answer questions related to their experiences in nursing school, with the majority having graduated more than ten years prior. In addition, nurses who belong to a professional organization that is gender-specific may respond differently than nurses who belong to a professional organization that consists of both genders. This study was replicated in Ireland by Keogh and O'Lynn (2007) using a slightly amended version of the IMFNP tool, but with very similar results. However, in this study as well as that completed in 2004, the accuracy of remembered facts and perceptions may have been of

concern since the participants were selected from a group of male nurses who had graduated within the past ten years.

Current literature has revealed relatively few studies that have focused on nursing faculty and their knowledge of, or perception of gender-based educational barriers. The studies that discuss the impact nursing education has had on the perpetuation of gender-based educational barriers have viewed the actions of nursing faculty from the perspective of the male student, rather than the faculty members themselves (Bell-Scriber, 2008; McLaughlin et al., 2010). There is little evidence available to discern whether nurse educators are aware of the real or perceived gender-based educational barriers faced by male students as well as the role they may inadvertently play in perpetuating these gender stereotypes. In fact, the literature has shown that nursing faculty often fail to acknowledge the fact that men show caring in very different ways and have different modes of communication which can lead to misunderstandings in a female dominated environment.

Although several studies have discussed the importance of including within the nursing curriculum, the concepts of appropriate caring touch by male nursing students (Inoue et al., 2006; Keogh & Gleeson, 2006; Pullen, Barrett, Rowh, & Wright, 2009), this topic continues to be absent from most nursing curricula despite the fact that it has been shown to be a major source of stress and anxiety for male students. Studies regarding why this information is frequently not being taught could not be found during the literature review.

Schools of nursing have traditionally been based on a pedagogical

model which is teacher-centered and often negates the fact that male students have different communication and learning styles. Studies which address this issue specifically within nursing education are very limited (Bell-Scriber, 2008; Bryne, 2002; Sax, 2008;).

It has been well documented in the nursing literature that although the number of male nursing graduates has increased over the past decade, the percentage of male student nurses still remains very low and men have a higher drop out rate than female students. There were no studies that could be found in the literature that specifically addressed why some male students succeed in schools of nursing and others drop out or fail. The concept of resilience may be one answer to this question. There have been no studies that could be found in the literature that specifically looked at measuring resilience in male nursing students.

Social Importance of this Topic

Without the knowledge that a problem exists, nothing can or will be changed. Recognizing that gender-based learning barriers exist within nursing curricula and helping to establish a link between these barriers and the educational struggles of male nursing students, can have far reaching implications for schools of nursing and for the profession as a whole. If we hope to attract and retain more men in nursing, we need to eliminate gender bias and begin treating men as equal partners in the nursing profession. This study can help to sound the alarm regarding the issues of gender bias in nursing education, and can assist the profession to develop a a male-friendly learning environment and a nursing curricula which is truly gender neutral.

Although previous studies have identified the existence of gender-based educational barriers and the impact they can potentially have on the ability of male students to successfully complete a nursing program, no studies have examined those factors that may help male students effectively cope with the added stress and role strain. One factor may be that some male students are more resilient that others. This study examined the levels of resilience in male nurses who graduated from schools of nursing in a large state in the southwestern United States within the previous 12 month period. Since resilience is a skill which can be effectively taught and learned, understanding the role that resilience plays in coping with the stress of nursing education, may help to keep more men in schools of nursing and may ultimately increase the percentage of male nurses within the profession. However, unless nursing faculty recognize the severe negative impact of gender bias and gender-based educational barriers, the nursing profession will continue to be a predominantly female profession. It is critical that the issues raised by this study be brought to the attention of nurse educators so they can be analyzed, evaluated, and measures taken to foster inclusiveness so that men are supported throughout their nursing education.

Section 3: Research Method

Introduction

The purpose of this descriptive, correlational, survey study was to explore the relationship between real or perceived gender bias and gender-based educational barriers within nursing education, and the level of resiliency in recent male graduates who have been able to achieve success in an academic nursing program. Based upon this purpose, four research questions were formed. To guide the discussion of this study, Section 3 is divided into seven subsections: (a) general overview of the research design and the theoretical basis and rationale for the design, (b) discussion of the setting of the study, the study population, and the rationale for the selection of the sample and the sampling techniques that were used; (c) description of the survey tools that were used and the rationale for selection, (d) procedures utilized for data collection, (e) the data analysis, (f) discussion of the ethical issues and the methods used to protect the rights of the participants, and (g) a summary of the overall methodology process.

Research Design, Rationale, and Theoretical Basis

A descriptive, correlational, cross-sectional research study design (Fink, 2006; Leedy & Ormrod, 2001;) was used to analyze the relationship between actual or perceived gender-based educational barriers (independent variables) and the levels of resilience found in male nursing graduates (dependent variable) who were able to successfully complete a professional nursing program within the 12 months preceding the study period. This design, also known as a correlational survey approach (Punch, 2006),

was chosen because it was not possible to manipulate the independent variables (e.g. gender-based barriers such as lack of male role models, nursing content related to appropriate use of caring touch by male nurses, or unequal clinical experiences). Although the results of correlational studies do not indicate causation, such results can be extremely helpful in determining a meaningful link between variables that have a logical relationship (Leedy & Ormrod, 2001, p. 193).

Previous studies by Keogh and O'Lynn (2007) and O'Lynn (2004) identified more than 30 gender-based barriers within schools of nursing. However, both of these studies relied on respondent memory with the majority of the respondents having graduated more than 10 years prior to the survey. In the most recent study, Keogh and O'Lynn (2007) surveyed 100 male nurses who had graduated between 1996 and 2004. Although 67 out of the 100 respondents had graduated between 2000 and 2004, the authors recommended that a similar study be completed using recently graduated male students (Keogh & O'Lynn, 2007, p. 258). Other studies have focused on one or two specific gender-based educational barriers (e.g. differences in caring behaviors, lack of knowledge regarding providing intimate care for female patients) and have used a qualitative approach with small samples (Harding, North, & Perkins, 2008; Patterson, 2002). This correlational survey study focused on male nursing graduates who successfully passed the NCLEX within the preceding 12 months and who applied for and obtained their Registered Nursing license from the State Board of Nursing in a large state in the southwestern part of the United States.

Although there are currently many theoretical approaches that could have been used to examine the issues surrounding gender bias within nursing education, this quantitative, correlational, survey study was based upon an ontological assumption that the only true reality is that which is perceived by the participants (Creswell, 2007, p. 17). This assumption allowed me to consider those gender-based educational barriers that the participants personally experienced, as well as those they perceived as being present. Building upon this ontological foundation, a social constructivist approach was used for the study because social constructivism “seeks to understand the world in which we live and assigns meaning to personal experiences” (Lambert et al. 2002, p. 7).

A social constructivist approach has been used by other nursing researchers when student perceptions were being evaluated. Gallagher (2007) studied the relationship between the preconceptions and past experiences of nursing students and their ability to successfully assimilate the theory and practice of nursing. As a result of this study, Gallagher (2007) recommended that nursing faculty adopt a social constructivist approach to enable students to successfully use their past experiences to develop the essential critical thinking and problem solving skills that are essential to the practice of nursing (p. 882).

O’Lynn and Tranbarger (2007) emphasized the importance of using a social constructivist approach when studying gender because gender is a “dynamic social structure” that revolves around the actions people take rather than what they are (p. 171). They also recognized that not all gender-based learning barriers are easily recognized or observed (O’Lynn & Tranbarger, 2007). For this reason, using a social constructivist

paradigm allows the researcher to take a broad approach, thus minimizing the potential impact of preconceived ideas and stereotypes.

Utilizing a social constructivist theoretical foundation, this correlational survey study explored the following hypotheses and research questions:

RQ1: Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program?

$H_0$1: There is no significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

$H_1$1: There is a significant relationship between real or perceived gender bias and gender-based educational barriers and the level of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

RQ2: Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses?

$H_0$2: Gender-based educational barriers are not still prevalent within nursing curricula.

$H_1$2: Gender-based educational barriers are still prevalent within nursing.

RQ3: What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career

student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

$H_0$3: There is no relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity.

$H_1$3: There is a relationship between gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

RQ4: Are new graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession?

$H_0$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are not able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

$H_1$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

Setting of the Study

This study took place in a large southwestern state in the United States. Although this setting was chosen as a matter of convenience, this state currently ranks second in growth rate according to the 2010 Federal Census (2010 Census). This state also has multiple large public universities, as well as a strong community college system, all of which have undergraduate nursing programs. Three of the large public universities have traditional classroom nursing programs as well as online programs, and each university graduates more than 200 nurses per year. Within the larger metropolitan areas, there are also numerous private colleges and schools of nursing that offer traditional education as well as online nursing programs.

Study Participants

The study participants consisted of male nursing graduates who had successfully passed the NCLEX-RN and applied for and received licensure as a Registered Nurse within the 12 months prior to the start of the study in the summer of 2011, in a large state located in the southwestern part of the United States. The rationale for the 12 month time frame was that not all schools of nursing complete their programs on a traditional academic calendar. Some schools graduate one nursing class in December, one in May, and some fast-track programs have classes that graduate in August. Therefore this time frame was chosen to encompass the wide variations in graduation schedules as well as to ensure that there would be a minimum period of time between graduation and the survey data collection. Although a larger sample may have been obtained by increasing the time frame, the longer time frame might have adversely affected the participants' ability to

clearly remember events that occurred during their academic nursing program. Fowler (2002) noted that it is important in survey research to focus on every aspect of the data collection design. For example, if the researcher is asking questions that the respondents are unable to clearly remember or to answer in a precise manner, increasing the sample size is not going to help because there is a flaw in the basic research design (Fowler, 2002, p. 8).

The population consisted of a list of 422 names of male nurses who met the criteria of having applied for and received their initial RN license within the past 12 months. The list of names was obtained from the State Board of Nursing in the southwestern state and included the following additional demographic information: (a) name, (b) address, (c) nursing license number, (d) date of original license, (e) expiration date of license, (f) licenses held in other states, (g) license status, (h) highest degree held, (i) state of residence, and (j) area of specialty.

The list of 422 names included only male nurses who had received their intial nursing license. Excluded from the sample were (a) Registered Nurses who were being licensed through endorsement from another state, (b) Registered Nurses with previous inactive licenses, and (c) Registered Nurses with advanced degrees that were being licensed as Advanced Practice Nurses (APN).

The information obtained from the State Board of Nursing included only a physical address for the names on the list, not an e-mail address. For this reason, letters were mailed to each of the 422 names inviting them to participate in a research study by answering an online survey, which was created using SurveyMonkey®. A brief

description of the study and a link to the website for the online survey was included in the letter. A one-dollar bill was also included in each letter to provide added incentive to participate in the study.

The survey remained open for a total of 60 days and during that time, 22 letters were returned because of a wrong address, and one recipient returned the letter with a note indicating that they were female. This resulted in a total population of 399 recent male nursing graduates. From the remaining population of 399, a total of 97 male nurses responded to the online survey resulting in a response rate of 24.4%.

Development and Implementation of the Data Collection Tool

An online survey was created using SurveyMonkey® and consisted of the consent form (Appendix A), a brief explanation of the study, nine demographic questions, and two previously validated tools, one for validating the presence of gender-based educational barriers and the other for measuring the levels of resilience of the study participants. The survey was also designed with a free-text comment field following each question which allowed the participants to provide comments for any or all of the questions.

The tool that was selected to measure the number of real or perceived gender-based educational barriers (Appendix B) was the Inventory of Male Friendliness in Nursing Programs-Short (IMFNPS) tool (O'Lynn, 2004). Permission to used the tool was obtained from Chad O'Lynn, the original author of the tool (Appendix C).

The original version of the tool IMFNP was longer than the IMFNPS and consisted of 27 gender-based barriers which were obtained from an extensive review of

the literature (O'Lynn, 2004). O'Lynn (2004) then conducted interviews with 10 male nursing students and the result was the addition of three more barriers. Fowler (2002) confirmed that one of the best ways to pretest a self-administered survey tool is to administer the tool to a group of potential respondents. Once the questionnaire has been completed, the researcher leads a discussion regarding the clarity of the questions (Fowler, 2002, p. 114). This validation method was used by O'Lynn (2004) and the 30 identified gender-based barriers were then reviewed by a panel of 18 nursing education experts including two deans of schools of nursing. The result of this review culminated in the addition of three additional items for a total of 33 items contained in the original Inventory of Male Friendliness in Nursing Programs (IMFNP) tool.

The IMFNP tool was pilot-tested for reliability on a sample of 111 male nurses and no additional barriers were identified by the participants. In 2005, a slightly revised version of the IMFNP tool (e.g. some terminology was changed to reflect cultural differences) was used by Keogh and O'Lynn (2007) to examine the perceived presence of gender-based educational barriers in nursing programs in Ireland. The results (n=100) were very similar to O'Lynn's (2004) previous study.

In a later study, the IMFNP tool was reformulated to include only17 items that had previously been identified as most important to the participants (O'Lynn & Tranbarger, 2007). This shortened tool, the Inventory of Male Friendliness in Nursing Programs-Short (IMFNPS) was used in a study of male nurses who had graduated from five different schools of nursing (n=78). The purpose of this study was to examine the internal consistency of the shortened tool versus the longer tool with 33 items. The

IMFNPS was found to have good reliability with a Cronbach's alpha score of 0.80 (O'Lynn & Tranbarger, 2007). The tool was used again in a follow-up study and was found to have a Cronbach's alpha of 0.84 (O'Lynn & Tranbarger, 2007).

In addition to the 17 gender-based barrier questions included in the IMFNPS, the I chose to include nine additional demographic questions. Although the original IMFNPS contained six demographic questions, I chose to add three additional questions related to the level of education prior to entering nursing (e.g. nontraditional student seeking second career), the number of other male nursing students in their graduating class, and the nursing specialty where the participant was currently employed. The nine demographic questions were included in the survey to determine if there was any correlation between the responses given for the gender-based barrier questions and the resilience scores; and certain demographic details such as age, race, level of education prior to entering nursing, and the number of men in their current nursing program.

The IMFNPS tool uses a 5-choice Likert-scale ranging from *Strongly Agree* to *Strongly Disagree.* In addition, approximated 50% of the questions are written in reverse order. O'Lynn (2007) noted that the tool was developed in this manner to "prevent response set bias" (p. 180). Fowler (2002) emphasized that it is important in a survey approach to "minimize a sense of judgment" such that the respondents understand which answers would receive a more favorable response by the researcher. By randomly stating the questions in both a positive and a negative manner, this process helps to provide responses that have been thoroughly reflected upon by the participants and can positively impact the validity of the outcomes.

The second tool (Appendix D) that was used in the survey to measure the levels of resilience in the study participants was the BRS (Smith et al. 2008). Permission to used the BRS was obtained from Smith, the original author of the tool (Appendix E).

The BRS was created to "assess the ability to bounce back or recover from stress" (Smith et al. 2008, p. 194). Although the literature is replete with various tools for measuring resilience (Ahern et al., 2006), most of the instruments focus on the characteristics associated with resilience or the identification of protective defenses or resources which allow individuals to develop a form of resilience (i.e. Resilience Scale for Adults-RSA). Many of the tools such as the Adolescent Resilience Scale (ARS) were not considered appropriate for this study because they were created for use in children or adolescents who have experienced a traumatic event (Ahern et al. 2006), or they were created for use with individuals who are facing serious medical conditions (Dolbier et al., 2007). Other tools such as the Resilience Scale (RS) are lengthy (i.e. 25 items) and require a more complex rating scale for answering the questions (i.e. 7-point rating scale) (Ahern et al. 2006).

Based on a thorough review of available tools for measuring resilience, I determined that it was important to select a tool that met the following criteria: (a) The tool should be brief and simple to use, (b) The tool should be effective for measuring resilience in the study population, (c) The tool should be well tested and validated in previous studies and it should possess strong internal consistency, and (d) The use of the tool should not be part of a for-profit venture such as the "Strengths Finders™" tools (Rath, 2007). Based on this selection criteria, the BRS was considered to be the most

appropriate for the study (Smith et al., 2008). The BRS, which was developed as a means of measuring one's ability to "bounce back from stress," consists of only six questions and uses a 5-part Likert scale (Smith et al., 2008, p. 194). The five-part Likert scale asks the participants to indicate their acceptance of the statements by selecting among the following choices: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The BRS uses a combination of positively worded statements alternating with negative statements (i.e. items 1, 3, and 5 are positive statements and 2, 4, and 6 are negative).

When developing the BRS, Smith et al.'s (2008) primary objective was to create a reliable tool using a minimal number of questions or items. The original test items were identified based on an extensive review of the literature, feedback from other members of the research team, and pilot testing with undergraduate students. The BRS was initially tested using four separate samples. The first two samples consisted of students, one undergraduate and one graduate. The other two samples were health-related groups consisting of cardiac rehabilitation patients and a group of women with fibromyalgia. The BRS was found to have Cronbach's alpha's ranging from 0.81 – 0.91, demonstrating strong internal consistency. The test-retest reliability demonstrated a strong level of agreement with a correlation coefficient of 0.69 for one month "using 48 participants from Sample 2 and 0.62 for three months in 61 participants from Sample 3" (Smith et al., 2008, p. 197).

Data Collection Procedures

Following approval by the Institutional Review Board (IRB approval 06-20-11-0064702) I submitted a proposal to the State Board of Nursing in a large southwestern state, outlining the details of the study, the IRB approval, and the survey tools that would be used in the study. I had obtained preliminary approval (Appendix F) and assurance that a gender-specific list could be obtained that would include the names and addresses of all the male nursing graduates who had applied for and received licensure as a Registered Nurse in the designated state within the preceding 12 months. After a review of the documents by the State Board of Nursing and the payment of a $100.00 fee, a list of 422 names was sent electronically to my e-mail address. According to the policy of the designated State Board of Nursing, the list of newly licensed male nurses contained home addresses, but not e-mail addresses.

An introductory letter (Appendix G) was mailed to each of the 422 names on the list. The introductory letter contained a brief explanation of the research study, the measures that would be in place to protect the anonymity of the participants, and the website they would use to login to take the survey. As a token of appreciation and as an added incentive to participate in the study, one dollar was enclosed with the letter.

The participants were initially given 4 weeks to respond to the online survey. This time frame had to be extended to a total of 8 weeks due to a few technical issues related to the demographic questions on the survey. The survey was originally designed to require the respondents to answer every question. This survey design resulted in error messages when a respondent tried to skip one of the questions such as "age." The survey

was redesigned so that the demographic questions were made optional. To provide additional time for those respondents who may have received error messages, the survey was kept open for an additional 4 weeks.

Follow-up Procedures

The initial survey response rate was less than 18% after the first 30 days. In an attempt to increase the number of participants, a reminder letter (Appendix H) was mailed to the first 75 names on the list. The decision to limit the reminder letter to the first 75 names on the list was based on the assumption that this was the group that had received the Introductory letter first and were more likely to have gotten an “error” message when trying to skip a demographic question on the survey. The reminder letter expressed appreciation for those who had already taken the survey and encouraged participation by those who had yet to take the survey. The reminder letter also contained the website for the online survey as well as my home address and e-mail address.

At the end of 8 weeks the electronic survey was closed. A total of 23 letters were returned thus leaving a total population of 399. From the total population of 399, 97 male nurses elected to take the online survery resulting in a 24.3% final response rate.

Data Analysis Technique

The responses from the surveys were collected electronically using the SurveyMonkey® online analysis tools. The data was analyzed using descriptive, nonparametric statistics using the Statistical Analysis System (SAS) software. Organizing and managing the data to facilitate the analysis involved the following steps:

Step 1: The survey results were obtained electronically from SurveyMonkey® and were downloaded into a Excel spreadsheet. The individual surveys were reviewed to determine the number of participants who chose to skip the demographic questions. The survey design would not allow the participant to skip any questions related to the IMFNPS or the BRS.

Step 2: Means and standard deviations were determined for each of the nine demographic questions as well as for each of the 17 questions on the IMFNPS and the six questions on the BRS. Multiple tables were created to display the responses and are explained in more detail in Section 4.

Step 2: A correlation coefficient was calculated using a Spearman *rho* to determine if there was a relationship between the independent variables (gender-based educational barriers) and the dependent variable (resilience score based on the BRS). The Spearman *rho* is the most appropriate statistical test to use when the researcher is evaluating ordinal data such as found in surveys which use a form of ranking scale (Faherty, 2008).

Step 3: A correlation coefficient was calculated using a Spearman *rho* to determine if there was a relationship between the participants' responses to the demographic questions and their response on the IMFNPS and the BRS. The majority of the responses obtained from the demographic questions were categorical variables, therefore the correlation coefficient was only calculated using age as a continuous variable.

Step 4: The comments for each of the questions were carefully reviewed and categorized into initial categories of positive or negative comments. Following this initial step, additional themes were identified for each of the questions. Specific comments that exemplified each of the themes were identified for inclusion in Section 5.

Threats to Validity

Potential threats to validity were minimized through the use of validated tools (i.e. IMFNPS and BRS) for the measurement of the independent and dependent variables. Vogt (2007) stated that it is important to evaluate content validity to ensure that the tools you are using are actually “measuring what they are supposed to be measuring” (p. 119). Content validity can be assessed by several methods including the use of a panel of experts and by pilot-testing the tools (Vogt, 2007). Both of these methods were used to determine the content validity of the IMFNPS and the BRS tools. Other potential threats to validity included:

- The answers to the questions on the IMFNPS tool required the respondents to identify real or perceived gender-based educational barriers that occurred during their nursing education. Fowler (2002) explained that some respondents may not have the same understanding of what the question is asking, and this may result in distorted data.
- A threat to internal validity may be produced by what Leedy and Ormrod (2001) refer to as “experimenter expectancy” (p. 104). This potential validity threat states that by identifying potential gender-based issues on the survey, it

may prompt the respondents to perceive biases that may not actually be present.

- Gender-based educational barriers that exist in one school of nursing may not be generalizable to another school of nursing.
- As no attempt was made to stratify the sample according to age, race or ethnicity, or whether the student entered nursing as a second career, it may not be possible to determine if these variables played a significant role in the results.
- There was a potential for a Type II error if I had only considered those participants with the highest resilience scores and the greatest number of identified real or perceived gender-based barriers as demonstrating a valid correlation. Gravetter and Wallnau (2008) stated that a Type II error can occur when the effect "is not big enough to move the sample mean into the critical region" (p. 200). Although the results of this study showed a weak correlation coefficient, this type of error should be considered for future studies of this design.

Ethical Issues

If the results of this study can assist schools of nursing to better identify gender-based educational barriers and help male students learn the tools they need to develop resilience, then it is critical that the participants feel free to answer the survey questions honestly and completely. Protection of the participants was accomplished by utilizing the following steps:

- IRB approval from Walden University was obtained prior to the data collection (Walden University IRB approval #06-20-11-0064702).
- The survey responses were completely anonymous because individual responses could not be linked to any names on the original list obtained from the State Board of Nursing.
- Each potential participant received a letter explaining the general purpose of the study and the process that would be used to protect their identity and the integrity of their responses.
- Informed consent was built into the electronic survey process. The participant could not proceed with the survey until they read and agree to the terms of the study.
- The responses were coded so that no identifying information would appear in any written discussion of the research.
- The original data including the respondents names and identifying information was kept on a mass storage device, and was kept locked in my possession. The storage device is password protected.

Summary

This section discussed the methodology that was used to to frame the study and provided a unique glimpse into nursing education as viewed through the eyes of recent male nursing graduates. Included in this section was a synopsis of the research design, the setting of the study, the process for selecting the study participants, the development

of the data collection survey, the data collection process, the analysis plan, the threats to validity, and the procedures that were followed to protect the rights of the participants. Section 4 presents the detailed analysis of the survey results and Section 5 discusses the interpretation of the results and recommendations for action and for future studies.

Section 4: Results

This section is divided into three primary sections: (a) an overview of the methodology and data collection process; (b) the analysis of the findings including demographic data, the analysis of the IMFNPS and the BRS responses, correlations of responses from both tools, a discussion of the themes identified from the study participants' comments; and (c) a summary of the analysis.

Overview of Methodology and Data Collection Process

The purpose of this study was to explore the relationship between real or perceived gender bias and gender-based educational barriers within nursing education and the level of resiliency in recent male graduates who have been able to successfully complete a professional nursing program. The study also focused on the identification of gender-based barriers that were considered to be the most prevalent and the most important for recent male nursing graduates. The research questions which were identified and explored in this study included:

Research Questions and Hypotheses

RQ1: Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program?

$H_0 1$: There is no significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

$H_1$1: There is a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

RQ2: Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses?

$H_0$2: Gender-based educational barriers are not still prevalent within nursing curricula.

$H_1$2: Gender-based educational barriers are still prevalent within nursing.

RQ3: What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

$H_0$3: There is no relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity.

$H_1$3: There is a relationship between gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

RQ4: Are new graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession?

$H_0$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are not able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

$H_1$1: New graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, are able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession.

The study sample consisted of male nursing graduates who had successfully passed the NCLEX-RN and applied for and received licensure as a Registered Nurse within the past 12 months, in a large state located in the southwestern part of the United States. The list obtained from the State Board of Nursing consisted of 422 names of recent male nursing graduates along with their physical address. It was the policy of this state board of nursing that e-mail addresses could not be released. An introductory letter containing the link to the online survey was mailed to each name on the list. All the letters were addressed by hand so they would not appear to be mass-produced, nor would the letters appear to be an advertisement. Each letter contained a one-dollar bill as an added incentive for participation in the survey.

The online survey remained open for a two-month period (i.e. 9/11/11 to 11/11/11). The length of time the survey was open had to be extended because of the added time it took to address each letter and envelop by hand. Some of the initial survey participants reported by e-mail that they had received an error message when trying to complete the survey. (My e-mail address was included in the introductory letter). The survey was reconfigured so that the demographic questions were not required and could be skipped if the participant chose to. This correction to the survey demonstrated an immediate increase in the response rate.

After 30 days, the response rate was approximately 18%. Reminder letters were mailed to the first 75 names on this list. This process was based on the assumption that the first names on the list most probably represented the group that may have encountered error messages as they attempted to skip some of the demographic questions. Based on this change in process, the survey remained open for an additional 30 days. Twenty-two letters were returned because of a wrong address, and one was returned because the recipient reported that they were female, resulting in a total population of 399. Out of this population, 97 male nurses responded to the survey for a final response rate of 24.3%.

The study utilized a descriptive, correlational, survey design that included the use of two previously validated data collection tools; the IMFNPS and the BRS. The online survey was developed using SurveyMonkey® and consisted of an explanation of the study and a consent to participate, nine demographic questions, the seventeen questions from the IMFNPS, and six questions that comprised the BRS. The demographic

questions were structured to allow the participants to skip any that they were not comfortable answering, but all other questions required an answer. Ten of the 17 questions in the IMFNPS and three of the six questions in the BRS were written in reverse order to minimize the chance that the recipients would respond in the same manner to each question. Descriptive and inferential statistics were used for data analysis using SAS version 9.1. In addition, the survey allowed for free-text comments following each question. The comments were categorized according to each survey question and themes were identified.

Analysis of the Findings

This section consists of an overview of the demographic data, a discussion of the descriptive statistics, the analysis of the data based on the research questions, and a discussion of the themes that emerged from the participants' comments.

Demographic Data

The survey contained nine demographic questions that were included to provide additional information about the participants. The demographic questions were optional, although the majority of the participants answered the questions. The following tables display the data from eight of the nine demographic questions. The ninth question asked which school the participant attended. Ninety-two participants answered this question and the responses indicated that 29 unique colleges, universities, and community colleges were represented in the sample. The school with the greatest number of participants was a four-year private baccalaureate nursing program.

Table 1 displays the distribution of the participants' age. The mean age was 33.50 years (*SD* = 9.28). This finding demonstrates a slightly older group of male graduates than has been found in some previous studies. This finding is discussed in more detail in Section 5. The age data revealed a weak correlation between mean age and the scores on the IMFNPS, Spearman *rho* = 0.01 (p>0.05). As the other variables were categorical variables, the correlation coefficient was only calculated using age as a continuous variable. The correlation coefficient calculation for age compared to the mean scores on the BRS also demonstrated a weak correlation with a Spearman *rho* = 0.13 (p>0.05).

Table 1

Participant Demographics: Age (N = 94; Mean = 33.50)*

Age Range	*Frequency*	*Percentage*
20-30	39	41.48%
31-40	36	38.29%
41-50	13	13.82%
51-60	4	4.25%
>61**	2	2.13%

Note. * 4 participants chose not to answer the age question. ** Ages included 61 and 63)

Table 2 displays the distribution of participants attending a four-year baccalaureate nursing program versus those attending an associate degree program. The survey showed that 63% of the respondents graduated from an associate degree nursing program.

Table 2

Participant Demographics: Type of College Attended (N = 95)

Type of College	*Frequency*	*Percentage*
BSN	35	36.84%
ADN	60	63.15%

Table 3 shows a summary of the year of graduation for each of the respondents. Ninety-seven percent of the respondents graduated in 2010 or 2011. Because the majority of the survey participants graduated within the past 1-2 years, their responses to the survey questions represented recent experiences and perceptions.

Table 3

Participant Demographics: Year of Graduation (N = 97)

Year of Graduation	*Frequency*	*Percentage*
2011	48	49.5%
2010	46	47.4%
2009	3	3.1%

Table 4 displays the distribution of survey participants with degrees obtained prior to entering nursing. This information was collected to determine the percentage of survey participants that would be classified as traditional students (i.e. entered college after high school), compared with older students who may have chosen nursing as a second career. The results demonstrated that 62.62% of the participants reported that they had a degree in another field before entering nursing school, and one participant indicated that he had a doctorate degree. These findings indicated that the majority of those who responded to the survey were older, nontraditional students. These results are explored in more detail in Section 5.

Table 4

Participant Demographics: College Degrees Prior to Entering Nursing (N = 62)

Degree	*Frequency*	*Percentage*
Associate Degree	34	54.8%
Bachelors Degree	29	46.8%
Masters Degree	9	14.5%
Doctorate	1	1.6%

Table 5 shows the distribution of ethnic categories for the respondents. The majority of the respondents indicated they were White/European American; therefore no comparisons could be made between the ethnic groups.

Table 5

Participant Demographics: Ethnicity (N = 97)

Ethnic Category	*Frequency*	*Percentage*
White/European American	74	76.3%
Hispanic	14	14.4%
Asian	4	4.1%
African American	3	3.1%
Native American	2	2.1%

O'Lynn and Tranbarger (2007) reported that one of the barriers men face in schools of nursing is the lack of male role models, especially male faculty. Table 6 shows the number of respondents that indicated that some members of their nursing faculty were men. Although 75% of the respondents indicated that there was at least one male faculty member, the comments suggested that the majority of the male faculty were in the clinical setting and not in the classroom. Two of the respondents indicated that the male faculty member was a physician, not a nurse.

Table 6

Were there men on the nursing faculty? (N = 97)

Variable	*Frequency*	*Percentage*
Yes	73	75.3%
No	24	24.7%

Table 7 shows the participants' response to the question, "Were there other male nursing students in your class?" The need for role models in the form of male faculty or male mentors is especially important in nursing programs where there are few other males in the classroom or clinical setting. The survey showed that 94.8% of the respondents indicated that there was at least one other male in their nursing class.

Table 7

Were there other male nursing students in your class? (N = 97)

Variable	*Frequency*	*Percentage*
Yes	92	94.8%
No	5	5.2%

Table 8 presents the employment data as listed by the survey participants. Although many new graduate nurses are finding it difficult to obtain a full-time new graduate nursing position, the survey demonstrated that 28% of the respondents were working in more traditional male-friendly settings such as Intensive Care, Surgical Services, Emergency/Trauma, Psychiatry, Correctional Institutions, Military, and Telemetry. This issue will be discussed further in Section 5.

Table 8

Specialty areas of nursing currently working in. (N = 93)

Variable	*Frequency*	*Percentage*
Hospital: Medical Surgical	22	23.7%
Hospital: Intensive Care	11	11.8%
Hospital: Surgical Services	2	2.2%
Hospital: Emergency	11	11.8%
Hospital: OB/GYN	0	0%
Hospital: Pediatrics	3	3.2%
Hospital: Psychiatry	2	2.2%
Ambulatory Care	0	0%
Public Health	2	2.2%
Other*	40	43.0%

*Included such areas as: Correctional Institutions, Dialysis, Geriatrics/Long Term Care Centers, Military, Oncology, Rehabilitation, Telemetry, Unemployed

Analysis of the IMFNPS

Gender-based educational barriers were identified using the Inventory of Male Friendliness in Nursing Programs-Short (IMFNPS). Table 9 lists the 17 barriers identified in the IMFNPS, the percentage of respondents who answered the question as “Agree” or “Strongly Agree”, and the means and standard deviations for each of the barriers. The lower the mean, the less male friendly the nursing program and the more gender-based educational barriers that were present or perceived to be present within the individual school of nursing. Three of the barriers (numbers 2, 7, and 16) were identified as being present within their school of nursing by more than 60% of the respondents.

Table 9

Gender-based barriers identified as present (N=97) (Average Mean = 3.32, SD = 0.55)
*(*Percentage indicates those that responded either "Agree" or Strongly Agree")*

Barrier	*Percentage**	*Mean***	*SD*
1. Most nursing instructors referred to the nurse as "she"	48.5%	2.69	1.20
2. History of nursing did not include contributions of men	86.6%	1.74	0.92
3. Nursing program did not actively recruit men	34%	2.78	1.02
4. Nursing faculty made disparaging remarks against men	21.6%	3.62	1.18
5. Program did not include content on men's health issues	20.6%	3.73	1.17
6. No opportunity to work with male nurses in clinical setting	20.6%	3.65	1.21
7. Had different requirement/limitations during OB/GYN clinical rotation	60.8%	2.41	1.32
8. Content was not presented on different communication styles between men and women	29.9%	3.26	1.24
9. Wasn't invited to participate in all student activities	6.2%	4.35	0.83
10. Program encouraged me to strive for leadership roles	6.2%	4.12	0.93
11. People most important to me were not supportive of my decision to enroll in nursing school	3.0%	4.41	0.84
12. Felt I had to prove myself in nursing school because people expect nurses to be female	37.1%	3.18	1.30
13. Male and female nursing students were treated more differently by the instructors than I had originally anticipated	24.7%	3.46	1.23
14. My gender was a barrier in developing collegial relationships with some of my instructors	20.6%	3.75	1.20
15. I did not feel welcomed by most RN staff in my clinical rotations	11.3%	3.99	0.93
16. I was nervous that a woman might accuse me of sexual inappropriateness when I touched her body	60.8%	2.45	1.30
17. My nursing program did not prepare me well to work with primarily female co-workers	28.9%	2.87	1.11

*(** The lower the mean, the less male friendly the nursing program and the more gender-based educational barriers are present or perceived to be present.)*

Table 10 lists the five gender-based educational barriers that were ranked the highest and were therefore considered to be the most important among the respondents. These five identified barriers also generated the greatest number of comments and are explored in more detail in the next section of Section 4 and in Section 5.

Table 10

Gender-based barriers with highest ranking. (N = 97).*
(Barriers with the greatest number of participants who rated it as "Strongly Agree")

Barrier	*Percentage**
1. Most nursing instructors referred to the nurse as "she."	48.5%
2. History of nursing did not include contributions of men.	47.4%
3. I had different requirements/limitations during OB/GYN rotation.	32.0%
4. Felt I had to prove myself in nursing school because people expect nurses to be female.	11.3%
5. I was nervous that a woman might accuse me of sexual inappropriateness when I touched her body.	28.9%

Analysis of the BRS

The BRS (Smith et al. 2008) measures the ability to bounce back from difficult or stressful situations. This tool was incorporated into the online survey to measure the levels of resilience of male nursing graduates who were able to achieve academic success in a nursing program as well as the ability to successfully pass the NCLEX-RN. The higher the mean score as measured by the BRS, the greater the participant's level of resilience. Table 11 lists the mean scores for the six questions on the BRS. Overall the respondents showed a high level of resilience.

Table 11

Mean Scores on Brief Resilience Scale© (BRS©) (N = 97)*
*(*Responses ranked from 1 – 5, higher score indicates higher level of resilience)*
(Average Mean = 3.90, SD = 0.62)

Question	*Mean**	*SD*
Q. 1. I tend to bounce back quickly after hard times.	4.12	0.82
Q. 2. I have a hard time making it through stressful events.	3.86	0.84
Q. 3. It does not take me long to recover from a stressful event.	3.90	0.86
Q. 4. It is hard for me to snap back when something bad happens.	3.84	0.89
Q. 5. I usually come through difficult times with little trouble.	3.78	0.88
Q. 6. I tend to take a long time to get over set-backs in my life.	3.92	0.77

Research Question One

Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program? This question was answered by looking at the means and standard deviations of the respondents scores on the IMFNP-S and the BRS. Correlation was measured using the Spearman *rho* correlation coefficient.

Hypotheses

H_0: There is no significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

H_1: There is a significant relationship between real or perceived gender bias and gender-based educational barriers and the level of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program.

Tables 9 and 11 provide a summary of the means and standard deviations of the respondents scores on the IMFNPS and the BRS. The Spearman *rho* correlation coefficient was calculated to determine if there was a correlation between the male graduates who identified the greatest number of gender-based educational barriers and their level of resilience as measured by the BRS. The Spearman *rho* correlation coefficient = 0.1025 ($p = 0.3178$) demonstrated a weak correlation between these two variables. Based on these findings, the null hypothesis was not rejected and it was concluded that there was no significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency round in recent male graduates who have been able to successfully complete a professional nursing program.

Research Question 2

Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses? Based on the findings shown in Table 9, it was determined that gender-based educational barriers are still present within schools of nursing. However, the survey also demonstrated that some of the gender-based educational barriers identified in previous studies by O'Lynn (2004) were not perceived as important barriers to the current survey respondents (e.g. barriers 9, 10, 11, 15). Table 10 shows the barriers that were identified as being the most prevalent and therefore considered to be the most important to the respondents.

Research Question 3

What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity? Table 12 shows the relationship between the participants' responses to the IMFNPS and the demographic data. Although the data showed no significant difference among the demographic variables (Spearman *rho* correlation coefficient for age versus IMFNPS = 0.01, $p > 0.05$), the following findings were found to be of interest:

- The older participants identified slightly fewer gender-based educational barriers.
- The mean IMFNPS score for graduates of associate degree programs was almost identical to those who graduated from baccalaureate programs.
- The participants with more advanced degrees also tended to identify fewer gender-based barriers.
- Those participants who identified that they had been taught by at least one male nursing faculty identified slightly fewer barriers.
- No conclusions could be drawn about the respondents who identified that they had other men in their class as compared with those who were the only male, because 92% of the respondents reported that there was at least one other male in their class.

Table 12

Demographic Data compared to Mean scores on IMFNP-S© (N = 97)

Demographics	*N*	*IMFNP-S Mean**	*IMFNP-S SD*	*IMFNP-S Median*
Overall	97	56.47	9.42	57.00
Age: 20-30	40	56.53	8.82	57.00
Age: 31-40	35	55.29	10.04	57.00
Age: 41-50	13	61.23	8.32	60.00
Age: 51-60	4	52.00	14.81	51.50
Age: > 61	2	55.00	11.31	55.00
School: ADN	60	56.45	10.10	57.50
School: BSN	35	56.14	8.06	57.00
Degree: Associate	31	54.74	9.90	54.00
Degree: Bachelors	21	57.95	5.24	59.00
Degree: Masters	9	57.33	9.30	57.00
Degree: Doctorate	1	57.00		57.00
Male Faculty: No	24	55.88	10.09	57.00
Male Faculty: Yes	73	56.67	9.25	57.00
Other Male Students: No	5	55.80	9.81	52.00
Other Male Students: Yes	92	56.51	9.45	57.00

(The lower the mean, the less male friendly the nursing program and the more gender-based educational barriers are present or perceived to be present.)*

Research Question 4

Are new graduate male nurses who perceive greater gender-based educational barriers and who also scored high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession? The results demonstrated a weak correlation between the participants' scores on the IMFNPS and the BRS. However, the overall mean on the BRS was higher than was reported by Smith et al. (2008) on studies using similar aged undergraduate students. These findings may indicate that a certain level of resilience is required to successfully overcome the stressors that are part of a nursing program and gender-based educational barriers would be included within the list of important stressors.

Summary of Themes Identified from Participant Comments

The survey participants were provided the opportunity to comment on any of the survey questions. This survey design resulted in a large volume of valuable and rich anecdotal information as the survey participants shared their thoughts, feelings, and emotions about being a male in a predominantly female profession. A more detailed discussion of the themes and examples of the comments is presented in Section 5. A summary of the major themes identified through the comments is presented in Table 13.

Table 13

Primary Themes Identified by the Participants' Comments

Theme
1. The participants expressed gratitude that the author has recognized that gender-based educational barriers exist in nursing education and they appreciate the fact that someone is researching this topic.
2. Although nursing faculty attempted to keep the classroom neutral, the nurse was generally referred to as "she".
3. Not only did the nursing curricula not contain any mention of the historical contributions men have made to the nursing profession, the majority of the respondents' comments indicated that they were unaware that men had made any historical contributions.
4. The male students welcomed being able to work with other male nurses during their education, but this didn't seem to be a priority focus for the nursing faculty; thus opportunities were limited.
5. The obstetrical clinical rotation was universally a difficult rotation to get through and learning opportunities were limited by their male gender.
6. There was limited acknowledgement by nursing faculty that men and women have different communication styles.
7. The majority of the respondents indicated that their decision to go into nursing was supported by their family or those closest to them.
8. Some nursing faculty had higher expectations of the male students.
9. Some participants experienced gender bias from female nurses on the nursing units where they were assigned for clinical rotations.
10. Male nurses experience considerable stress and anxiety regarding their concern that they might be accused of inappropriate sexual touch while performing nursing care for female patients.

Analysis Summary

This section presented an overview of the methodology and data collection process; the analysis of the findings which included the demographic data, the survey responses to the IMFNPS and the BRS; and the themes identified from the survey participants' comments. Descriptive statistics were used to facilitate the analysis of the nine demographic variables using means, standard deviations, and percentages. Inferential, nonparametric tests using Spearman *rho* correlation coefficient were used to measure the correlation between the responses on the IMFNPS and the BRS. The Spearman *rho* resulted in a small effect size demonstrating that there was not a significant correlation between the respondents who identified the greatest number of gender-based educational barriers and the levels of resilience. However, despite the lack of a significant correlation between the participant's scores on the IMFNPS and the BRS; additional study results did reveal important and potentially far-reaching findings regarding the continued presence of gender-based educational barriers within nursing education and the potentially negative impact of these barriers on male nursing students.

Additional study results indicated that although some gender-based educational barriers are not as prevalent as identified in earlier studies; many barriers are still present within schools of nursing and three barriers were identified as being present by greater than 60% of the respondents. Five barriers were identified as being the most important to the respondents as indicated by the number that rated the barrier as "strongly agree," as

well as by the number of comments generated by the question. These barriers included: (a) nursing instructors referred to the nurse as "she," (b) nursing curricula failed to discuss the contributions of men throughout the history of nursing, (c) unequal learning experiences during the obstetric clinical experience, (d) need to prove myself because people expect a nurse to be a woman, and (e) fear of being accused of sexual inappropriateness when providing care to a female patient.

The BRS showed a higher score for the majority of the survey participants as compared to comparable groups in previous studies where the BRS has been used to measure resilience.

All of the 17 questions that made up the IMFNPS generated a large volume of comments. Although many participants reported that the nursing faculty tried to keep the learning environment gender neutral, the five gender-based educational barriers that were identified as present by the greatest number of participants, also generated the largest volume of comments. The barrier that created the most fear and stress among the participants was the concern that they would be accused of inappropriate sexual contact when providing intimate care for female patients.

Section 5 discusses further interpretation of the findings, the implications for social change, recommendations for future research, and recommendations for changes in nursing education and practice.

Section 5: Discussion, Conclusions, and Recommendations

Overview of the Study

The purpose of this descriptive, correlational, survey study using a quantitative approach was to address the primary research question, which explored the relationship between real or perceived gender bias and gender-based educational barriers within nursing education; and the level of resiliency in recent male graduates who have been able to successfully complete a professional nursing program. Three additional research questions focused on (a) validating the presence of gender-based educational barriers within schools of nursing using the IMFNPS, (b) exploring the relationship between the identified gender-based educational barriers and various demographic data included in the survey, and (c) determining whether there was a relationship between the students who identified the most barriers and their levels of resilience or ability to bounce back from stressful situations using the BRS.

Research Question 1

Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program?

Research Question 2

Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses?

Research Question 3

What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional vs. second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

Research Question 4

Are new graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession?

The participants in this study consisted of 97 male nursing graduates who had received their initial nursing license within the previous 12 month period and who responded to the introductory letter asking them to take an online survey. The introductory letter was mailed to 422 names on the list which was obtained from the state board of nursing in the state selected for the study. Twenty-three letters were returned unopened, leaving a total population of 399 and a response rate of 24.3%.

Findings of this study showed that recent male nursing graduates are still experiencing gender-based educational barriers within schools of nursing and little progress has been made towards eliminating some of these barriers. For example, the majority of the participants (86.6%) reported that the nursing curriculum failed to include any discussion of the role men have played in the history of nursing, and more than one-

half of the participants (60.8%) indicated that they were nervous that a woman might accuse them of sexual inappropriateness when providing intimate nursing care.

Despite the existence of gender-based educational barriers identified within the 29 schools of nursing included in the study, the study participants were able to overcome the real or perceived barriers and successfully complete an academic nursing program. This ability to achieve success in nursing education regardless of the presence of gender bias and gender-based educational barriers may be partially explained by the high scores achieved on the BRS. The BRS average mean = 3.90 (*SD* = 0.62). Previous studies in similar age groups demonstrated average mean scores of 3.53 and 3.57 (Smith et al., 2008).

Despite the fact that the study revealed a weak correlation (Spearman *rho* correlation coefficient = 0.1025, $p = 0.3178$), between the mean scores on the IMFNPS and the mean scores on the BRS, the participants identified five gender-based educational barriers that were considered to be very important to the respondents and three barriers were identified as being present within their school of nursing by more than 60% of the respondents.

Demographic data revealed a nontraditional college graduate with a mean age of 33.50 years. Other demographic findings indicated a predominately European American population with 63% of the participants having attended an Associate Degree nursing program.

The online survey tool provided the participants with the opportunity to attach a comment to any of the survey questions. This technique resulted in a large volume of

rich anecdotal data which allowed me to glimpse many of the perceptions, experiences, and emotions (both positive and negative) that helped to shape the participants' nursing education programs. Although multiple themes were identified from the participants' comments, two themes were considered to be among the most important to the participants, (a) lack of equal clinical experiences during the obstetrical rotation, and (b) fear that the male nurse will be accused of inappropriate sexual contact when providing nursing care to a female patient.

Section 1 of the study introduced the hypotheses, the research questions and the theoretical framework which served as the foundation for the research. Section 2 provided a detailed review of the literature, Section 3 discussed the methodology and structure of the study, and Section 4 presented the analysis of the findings. Section 5 presents an interpretation of the findings, the implications for social change, the recommendations for action, the recommendations for further study, and concludes with a final summary statement.

Interpretation of the Findings

Research Question 1

Is there a significant relationship between real or perceived gender bias and gender-based educational barriers and the levels of resiliency found in recent male graduates who have been able to successfully complete a professional nursing program? The findings demonstrated a weak correlation between the two variables (Spearman *rho* = 0.1025, $p = 0.3178$). The hypothesis was that the participants with the lowest mean score on the IMFNPS (meaning less male friendliness within the nursing program, thus

more gender bias and gender-based barriers were present), would also score among the highest on the BRS.

One possible explanation for the weak correlation was that most of the participants scored high on the resilience scale (BRS) with a mean average of 3.90 (SD = 0.62). The participants' mean scores on the BRS were higher than the mean scores in comparable studies using the BRS. Smith et al. (2008, 2010) used the BRS to measure the levels of resilience in 4 unique samples with varying age groups and genders. In this study, Smith et al. (2008, 2010) selected two groups that had health-related problems. One group consisted of both males and females who were currently in a cardiac rehabilitation program after suffering a myocardial infarction (*n*=112). Another group consisted of only women who were experiencing chronic pain and who had a diagnosis of fibromyalgia (*n*=50). The other two groups consisted of both male and female undergraduate students (*n* =128, *n*=64). The group that had recently experienced a life-changing event (i.e. myocardial infarction) had the highest score on the BRS (i.e. BRS = 3.98; Smith et al., 2008, p. 197). The two groups which consisted of undergraduate students (*n* = 128, *n* = 64) scored 3.53 and 3.57 respectfully on the BRS (Smith et al., 2008, p. 197).

The resilience scores of the male nurses who responded to my online survey scored at approximately the same level as those who had experienced a significant and life-threatening health event such as a myocardial infarction (average mean score on BRS = 3.90). Based on these findings, the I posit that the male nursing students' overall high scores on the BRS, may reflect the fact that a high level of resilience allows men to be

able to bounce back from the stress of nursing school and helps them successfully complete an academic nursing program.

Research Question 2

Are gender-based educational barriers still prevalent within nursing curricula, and if so, which barriers are considered the most important to new graduate male nurses? The findings of this study indicated that gender bias and gender-based educational barriers are still present within the schools of nursing represented in the study.

Initial studies using the Inventory of Male Friendliness in Nursing Programs (IMFNP) tool (O'Lynn, 2004) listed 33 gender-based educational barriers that were identified by male nurses as being present within schools of nursing. Later studies by O'Lynn (2007) created a shortened version of the survey tool called the Inventory of Male Friendliness in Nursing Programs-Short (IMFNPS), which identified the 17 gender-based barriers that were considered to be most prevalent within schools of nursing and which were also considered to be the most important factors for the male nurses who participated in the previous studies.

My survey results served to validate the IMFNPS tool by demonstrating that all 17 barriers were still present within schools of nursing. However, some of the gender-based educational barriers were present to a much lesser degree than was identified in O-Lynn's (2004) earlier studies. Those barriers that were identified as present by only a small percentage of the participants (< 15%) included questions 9, 10, and 15. These questions reflected the fact that male students' feel that they were not excluded from participating in all student activities and that their nursing program encouraged them to

strive for leadership roles. Question 15 indicated that the majority of the respondents felt welcomed by other nurses in the clinical setting. However, this feeling of being welcomed as a male student by female nurses on the nursing units did not always extend to the obstetrical unit. This issue will be explored in more detail later in this section.

The 17 gender-based barrier questions which comprised the IMFNPS, were analyzed in two ways. The first step was to look at the percentage of participants who indicated that they “Strongly Agreed” or “Agreed” to the presence of each of the 17 barriers within their school of nursing. Means and standard deviations were also calculated for each barrier. Using this approach, there were a total of seven gender-based barriers that were identified by at least 30% of the participants as being present within their nursing program. Included in this list were the following:

Question 1: Most nursing instructors referred to the nurse as “she”. (48.5%)

Question 2: History of nursing did not include the contributions of men. (86.6%)

Question 3: Nursing program did not actively recruit men. (34%)

Question 7: Male students had different requirement/limitations during OB/GYN clinical setting. (60.8%)

Question 8: The nursing curriculum did not discuss the fact than men and women have different communication styles. (29.9%)

Question 12: Male students felt they had to prove themselves in nursing school because people expect nurses to be female. (37.1%)

Question 16: I was nervous that a woman might accuse me of sexual inappropriateness when I touched her body. (60.8%)

Although many of the participants provided positive comments indicating that nursing faculty strived to provide a gender-neutral learning environment, the findings demonstrated that certain gender-based educational barriers are still present within some schools of nursing and that nursing academia are perpetuating the gender stereotype of nursing as a feminine profession. O'Lynn (2007) posited that some schools of nursing use a feminine educational pedagogy because they fear that men in the nursing profession may destroy those qualities that are uniquely part of the nursing profession (p. 174).

The idea of a feminine pedagogy in nursing education has been echoed by other authors who have studied the impact that such a biased pedagogy can have on male students' ability and motivation to continue in nursing. McLaughlin et al. (2010) performed a longitudinal study which looked at the role of gender and the nursing students' decision not to continue in the nursing program. The findings demonstrated that male students were much more likely to leave the program, and nursing education continues to perpetuate gender stereotypes through a feminization of the curriculum which creates "gender dissonance" and resentment among some male students (McLaughlin et al., 2010, p. 306). Bell-Scriber (2008) found that the use of a feminine pedagogy in nursing creates a "chilly" classroom environment which has caused male students to feel unsupported and can contribute to a decision to leave nursing (p. 144).

Whether it is called "gender dissonance" or it is simply called "gender bias," the large volume of comments that the study participants took the time to write reflects the fact that gender-based educational barriers continue to be an important cause of stress and concern for many male nursing students.

The second phase of the analysis of the 17 gender-based educational barrier questions on the IMFNPS, was to look at the barriers that were considered to be the most important to the participants. This was determined by looking at two factors, those barriers that had the lowest mean score (i.e. the lower the mean score, the more gender-based barriers that were present and the less male friendly the nursing program was considered to be), and those that had the highest percentage of participants that rated the barrier as "Strongly Agree." There were a total of five gender-based barriers that met these two criteria. These five barriers included:

1. Most nursing instructors referred to the nurse as "she".
2. History of nursing did not include contributions of men.
3. I had different requirements/limitations during the OB/GYN rotation.
4. I felt I had to prove myself in nursing school because people expect nurses to be female.
5. I was nervous that a woman might accuse me of sexual inappropriateness when I touched her body.

The responses for barrier number one indicated that almost one-half (48.5%) of the participants reported that they "Strongly Agreed" with the statement that "most instructors referred to the nurse as *she*." This finding is important because it helps to reaffirm the findings of other studies which demonstrated that nurse educators are not providing a gender-neutral learning environment (Bell-Scriber, 2008; McMillian et al. 2006; O'Lynn, 2007).

Although there were numerous positive comments about the efforts that some nursing faculty made to avoid referring to a nurse in feminine terms, the participants provided many examples that indicated that nursing educators need to improve their teaching styles regarding this issue. One participant commented about his nursing instructors, “I believe they tried to be as gender neutral as possible but when a pronoun was needed it generally was *she*.”

Barrier number 2 elicited responses by more than 85% of the participants who indicated that their nursing program failed to discuss the historical contributions that have been made by men in nursing, and most of the comments indicated that the participants had no idea about the important historical roles men have played in caring for the sick. One participant summed it up this way: “I’m not sure that men have been a part of nursing long enough to have made any historically significant contributions.” The fact that this gender-based barrier was identified by such a large number of the participants is important because the failure to recognized the historical contributions men have made to the nursing profession, has significantly contributed to the mindset that nursing has always been a feminine profession (Anthony, 2004; Boschma et al., 2005; Fealy, 2004; Keogh & O’Lynn, 2007). McLaughlin et al. (2010) found that the history of men in nursing is overlooked in nursing textbooks as well as in the curriculum which “reinforces the widespread belief that nursing began with Florence Nightingale, and the idea that the presence of men in the profession is a recent phenomenon” (p. 306).

Barriers 3 and 5 indicated a common theme, “providing intimate care to female patients.” Thirty-two percent of the participants indicated that they were not provided the

same types of clinical experiences during their obstetrical clinical rotation as compared with their female counterparts; and 28.9% reported being afraid that they would be accused of inappropriate sexual contact when providing care for female patients. These two barriers also generated the greatest number and the most emotionally-laden comments.

Harding et al. (2008) found that although the use of touch is an important aspect of nursing care, it is often a source of great anxiety for male nurses because the use of touch is considered a feminine trait and men's touch is often considered in a sexual context. Harding et al. (2008) stated that people have come to accept intimate touch by female nurses when providing nursing care. However, this same type of intimate touch by a male nurse can lead to misunderstandings and misinterpretation.

During the obstetrical clinical rotation, providing intimate care for female patients is inherent in the role of the nurse; yet the survey participants reported that they were often banned from fully participating in this clinical experience at the request of the patient, the patient's significant other, or the nursing staff on the obstetrical unit. One participant phrased it this way,

> Being a male limited my experience, since during this rotation the majority of the mothers-to-be would not allow a male student to be part of their deliveries. I was not able to see a delivery, as opposed to female nursing students who ended up seeing multiple deliveries.

The responses to barrier number 4 indicated that 11.3% of the participants responded that they "Strongly Agreed" with the statement that they felt they needed to

prove themselves in nursing because most people expect nurses to be female. Although this percentage was not as high as the percentages for the other four barriers that were considered to be the most important; the response rate does demonstrate the fact that male nursing students are still feeling that they are not always equal partners in the learning environment. Haas (2006) reported that men in nursing often feel separate from the rest of the class and multiple studies have confirmed that male students, as well as practicing male nurses, often experience issues regarding tokenism and social isolation (Brady & Sherrod, 2003; Ferreira, 2007; Patterson, 2002). The participants' comments displayed strong emotion surrounding this issue. One participant explained it this way, "I felt that the faculty had higher expectations of me, as if they were making me prove myself more than the female students."

Research Question 3

What is the relationship between real or perceived gender-based educational barriers and other variables such as age of male graduate, traditional versus second-career student, type of nursing program attended, presence of other male students in the same class, and ethnicity?

For this research questions, only the age variable could be used to calculate the correlation coefficient because the remainder of the variables were categorical variables. Although the results demonstrated only a weak correlation between the demographic variable of age and the participants' scores on the IMFNPS and the BRS (Spearman *rho* of 0.01 and 0.13, $p>0.05$) respectfully; the data did reveal some interesting findings which are discussed in the following five subsections.

Demographic variable: Age and the traditional versus non-traditional student. The survey results demonstrated an older student population with a mean age of 33.50 (*SD* = 9.28). This finding of an older male nursing student is consist with three previous studies by O'Lynn (2004, 2007), which found the mean ages of the participants to be 29.8, 29.9, and 31.2 respectfully.

In addition to being older, the majority of the participants were considered to be non-traditional students (i.e. a student who did not enter college immediately after high school). Sixty-two participants (*N* = 97) reported that they held degrees in other fields prior to entering nursing with nine respondents indicating that they had earned a masters degrees and one student held a doctorate. These findings of an older, nontraditional male nursing student are consistent with other studies. Gransee (2005) found that men often seek nursing as a second career because it is viewed as a stable job in an otherwise insecure labor market. Although there have been few studies which have analyzed male nursing students' age as a predictor for success in schools of nursing, McLaughlin et al. (2010) found that 100% of the nursing students who were age 33 or older successfully completed the nursing program (p. 305).

Demographic variable: Type of college attended. The survey findings showed that 63% of the participants graduated from an associate degree nursing program. This finding is consistent with an older, more traditional student population. In a recent report from the NLN (2010), 15% of the nursing students enrolled in associate degree nursing programs were male, as compared with only 12% in baccalaureate nursing programs. In the southwestern state in which the study was completed, 2010 admissions to associate

degree nursing programs equaled 2,337; while admissions to baccalaureate programs equaled only 1,050 (Randolph, 2010, p. 12).

Demographic variable: Presence of other male students. One of the demographic questions asked the participants to indicate whether there were other male nursing students in their class. Only eight participants ($N = 97$) indicated that they were the only male in their nursing class. This finding is important and may help to explain why these male students were able to successfully complete the nursing program. Previous studies have shown that the presence of other male students reduces the feelings of isolationism, tokenism, and role strain which are frequently a part of being a male in a female-dominated learning environment (Fenkl, 2006). Stott (2007) found that when male nursing students had the ability to routinely interact with other males in the profession, they were able to learn the coping skills that were essential for success both in the classroom and during their clinical rotations (p. 330).

Demographic variable: Ethnicity. No comparisons could be made between the groups based on ethnicity because 76.3% of the survey participants (74/97) indicated that they were White/European American. The next largest ethnic group was Hispanic at 14.4%. One participant indicated in the comments that he did not feel any bias regarding his gender, but he did feel bias related to his ethnicity. He wrote, “The biggest barrier to me was not being a male, it was being Hispanic and my accent.” Although bias and discrimination related to ethnicity was not the focus of this study, ethnic discrimination in nursing schools is discussed in the literature. Alexander (2006) found that minority students in nursing often find themselves feeling isolated and experience being “shut out”

by their peers or just being "tolerated" (p. 1). Alexander also noted that in schools of nursing, being white is the norm, just like being a woman is the norm. Any student who falls outside of the norm has a very different experience in the classroom and in the clinical setting than those students who are considered to be part of the privileged group (Alexander, 2006, p. 2).

Demographic variable: Current work setting. The participants were asked to provide information about their current work setting. The purpose of this question was to determine if these recent male nursing graduates had selected fields of nursing that were traditionally considered to be more masculine. Muldoon and Reilly (2003) looked at the issue of role strain and role conflict when men chose to work in female dominated professions such as nursing. They found that male students who entered nursing were more likely to choose specialties within nursing that were considered more masculine in nature such as surgery, trauma, and mental health (p. 99). Hereford and Reavy (2008) found that some of the typical male nurse stereotypes have caused men to enter fields of nursing that are considered to be more "manly" such as emergency nursing or critical care. For some men, this means that they often enter areas of nursing that require them to be "tough minded or technologically savvy" thus keeping with the more traditional masculine image (Fenkl, 2006, p. 40). Evans (2002) found that men in nursing often gravitated to nursing specialities that are considered to be "low touch" such as administration, surgical services and informatics (p. 441).

Although only 28% of the survey respondents (*N* = 93) indicated that they were currently working in a more traditional masculine specialty areas (e.g. intensive care,

surgical services, emergency department, psychiatry), these results may reflect the economics of the current job market rather than a lack of desire by the participants to work in a more masculine-friendly nursing environment. Many hospitals in the study area have greatly reduced the number of new graduate nurses that are being hired, and some hospitals have completely eliminated their new graduate orientation programs, preferring to hire only experienced nurses. This finding is supported by the comments from some of the survey participants who indicated that they were still unable to find a job.

The shortage of nursing jobs for new graduate nurses is supported by a recent survey of new graduates nurses which was conducted by the state board of nursing in the same state that was used for this study. In this survey, Randolph (2011) found that only 50% of RN's graduating in 2011 had found employment in nursing within 6-9 months of graduation, and for those who had found jobs, 68.2% were working in acute care settings which was a decrease from 74% in 2010. The survey also found that 16% were working in long-term care compared with 12% in long-term care in 2010, and that many of the new graduates were willing to work any hours and at a lower salary than anticipated, just to obtain a full-time nursing position (Randolph, 2011, p. 5).

Research Question 4

Are new graduate male nurses who perceive greater gender-based educational barriers and who also score high on the resilience scale, able to cope more effectively with gender role conflict associated with being a male in a predominantly female profession?

The survey results demonstrated a weak correlation between the participants' scores on the IMFNPS and the BRS (Spearman *rho* = 0.1025, *p* = 0.3178). The lack of a significant correlation between the number of gender-based educational barriers identified by the participants and their respective scores on the BRS may be partially explained by the fact that the majority of the participants scored high on the resilience scale. As previously discussed under Research Question 1, the overall mean score for all six questions on the BRS was 3.90 (*SD* = 0.62). Scores for the BRS tool imply that the higher the mean score, the greater the level of resilience and the more likely the student would be able to "bounce back or recover from stress" (Smith et al., 2008). The mean resilience scores for this study were higher than two previous studies by Smith et al. (2008) which used the same tool and a similar demographic population. That is, Smith et al. found resilience scores of 3.53 and 3.57 in two groups of undergraduate students , *n* = 128 and *n* = 64 (p. 197).

Another explanation for the lack of a strong correlation between the identified gender-based barriers and the resilience scores was the fact that the survey participants were also homogeneous in regards to age. As previously discussed, the study sample consisted of a relatively older, non-traditional student with a mean age of 33.50 (*SD* = 9.28). Smith (2010) studied resilience using the BRS and found that "age and male gender were positively related to optimism, social support, and mood clarity" (p. 5). It is possible that older, non-traditional male nursing students have been able to develop resilience skills that have allowed them to successfully overcome the stresses of nursing school. The comments of two survey participants lend credence to this premise. The first

participant wrote "I try to learn from each of my setbacks or difficult situations. Life is all about learning and that is especially true about the nursing profession." The second participant wrote "The older I get, the more resilient I have become. I think my age has helped me to not be so easily intimidated by hard times."

Of the six questions that compose the BRS, one question generated a much higher score than the others. The question with the highest score was, "I tend to bounce back quickly after hard times". The mean score for this question was 4.12 (*SD* = 0.82), higher than the overall mean score of 3.90 (*SD* = 0.62). It may be that older male nursing students, with previous life experiences, have learned ways to cope and have developed tools to improve their levels of resilience. Many researchers who have studied resilience generally agree that resilience is a dynamic process which can expand or diminish over time and across the various stages of life (Coutu, 2002; Jackson, Firtko & Edenborough, 2007; McGee, 2006; Tusaie & Dyer, 2004).

If male nursing students with high levels of resilience appear to cope more effectively with the stress of nursing school, it is conceivable that resiliency should be a skill that is not only discussed, but cultivated within the nursing curriculum. It was beyond the scope of this study to evaluate the male nursing students who dropped out or failed. However, with some nursing programs experiencing drop out or failure rates as high as 50%, this is a significant issue (Wilson, 2005). One important factor that could make the difference between success and failure in schools of nursing may be the student's level of resilience. Coutu (2002) found that resilience is even more important than education, experience, and training; and that it is the single most important factor

that can differentiate between those who succeed and those who fail (p. 47). The results of this study demonstrated that the survey participants have achieved a high level of resilience which may have positively contributed to their ability to be successful in an academic nursing program.

Jackson et al. (2007) recognized the need to help nursing students develop resiliency skills in order to reduce feelings of uncertainty and vulnerability and to be able to successfully cope with difficult and stressful situations which are a part of the nursing profession. Jackson et al. also agreed that resiliency is a skill which can be taught. Although there isn't one universal method which researchers agree is the best way to teach resiliency, there is agreement from some authors that resiliency education should be included in the nursing curriculum (Atkinson et al., 2009; Jackson et al. 2007; & Richardson, 2002).

Themes Identified from Participants' Comments

This section highlights the overarching themes that emerged from the volumes of comments generated by the survey questions. From the comments, five prominent themes were identified and are summarized in the following section.

Theme 1: Nurses are still being referred to as "she". The participants reported that most of the nursing faculty made an honest effort to keep a gender-neutral environment, however, the educational materials were sometimes perceived to be gender-biased. For example, one participant commented that the DVD series that they were required to review to learn clinical skills "displayed the male students as the ones who had the most clinical difficulties." This finding is supported in the literature. Bell-Scriber

(2008) found nursing textbooks that failed to represent male and female nurses equally and in some nursing texts “all of the pictures and stories about nurses used female examples” (p. 148). Braun (2003) reported finding nursing curricula that was “narrow focused” and was being taught from a feminine perspective (p. 3).

Theme 2: Nursing curricula did not contain any discussion of the historical contributions of men in nursing. Most of the participants’ comments indicated that the historical contributions of men in nursing were not covered in the curriculum and twenty of the respondents indicated that they did not know that men had contributed anything to the history of nursing prior to this survey. The following two comments are representative of the many other comments that were received “I’m not sure that men have been a part of nursing long enough to have made historically significant contributions.” Another participant commented “Before answering this survey, I didn’t even realize than men HAD contributed to the nursing profession. All focus in the curriculum was on Florence Nightingale, an honorable woman, but nothing in regards to males.”

Theme 3: Male students had unequal learning experiences during the obstetrics (mother/baby) clinical rotation. The challenges during the obstetrical (OB) clinical rotation generated the most comments (i.e. 49 separate comments). The majority of the comments indicated that this was “very tough to get through” and there were definite limitations and restrictions placed on the participants’ learning opportunities because of their gender. The limitations in the learning environment did not stem from the instructors as much as it did from the patients not wanting a male nurse. There were

also issues regarding the nursing staff at the hospitals not wanting male students to care for the female patients. Some of the participants indicated that the experience required them to use greater communication skills to gain rapport with the patient and her husband. The following are examples of the comments that were expressed by the participants: (a) “Throughout my obstetrical rotation, most female patients refused a male nursing student,” (b) “I felt unwelcomed by the patients, family, and staff in the majority of the OB rotation,” (c) “I was not able to experience what other students were able to because I was a guy,” (d) “I was unable to do many of the required assessments on mothers and their newborns because of my gender. I was further discriminated against by female RN’s who thought all men were in OB rotation to look at the female parts and not to learn,” (e) “The nurses and the patients both made me feel very unwelcome in that rotation,” and (f) “The nurses would always ask the patients if it was okay if a male student nurse provided care for them, while the female students were treated as if they were staff nurses assigned to the patient.”

Theme 4: Male students felt they had to prove themselves in nursing school because people expect nurses to be female. The comments for this question were spread equally on both sides of the issue. Several participants felt that their instructors expected more of the male students. One participant wrote,

> I feel that if a male student is going to achieve success, he has to work twice as hard and be able to take the brunt of the instructors’ jokes or be willing to get picked on because we stick out in the crowd.

Another participant wrote, “I felt that the faculty had higher expectations of me, as if they were making me prove myself more than the female students.”

The participants also felt that more was expected of them after graduation and with their first professional job as an RN. For example, one participant wrote,

> The tension in the patient’s room when I enter can be palpable with both the patient and the family’s obvious disappointment that the patient did not have a female nurse assigned to them… when I enter the room I am usually expected by the patient to be a doctor or the maintenance man.

Theme 5: Male nursing students were afraid of being accused of sexual inappropriateness when providing intimate care for female patients. This question generated the greatest volume of responses and some participants wrote very lengthy comments. This was clearly the question that generated the strongest emotional response. Some participants indicated that the facility they worked in had a “chaperone policy” which they used when providing intimate care for female patients. Other participants described this issue as one that they continue to fear and one that causes considerable work-related stress. One participant wrote, “This is something I still to this day fear. I have been in the medical field for a while and this has never happened to me, but you hear stories.” One participant wrote a very lengthy discussion of this issue and he addressed the fact that a fellow classmate left the program because of his fear over this issue. He wrote

> My partner didn’t make it through nursing school…I believe his fear that he may be accused of touching someone inappropriately was a factor….The fear

> that a woman may accuse me of inappropriately touching them was one of the greatest hurdles I overcame in becoming a male nurse. It is still one of the greatest fears in my practice.

Another participant wrote "I was worried in school, and am still worried daily in my practice."

Very few participants indicated that this topic was sufficiently discussed in the nursing curriculum, and when it was discussed, the primary response was to utilize a female chaperone when providing intimate care. The majority of the participants' comments indicated that they were not provided sufficient skills during nursing school to successfully overcome these fears. One participant summed it up this way,

> Holy cow was I ever so damn scared about this. The staff nurses would say don't touch the females they will cry rape and you can't do a full assessment and you can't do anything because if you touch them it is your ass on the line.

Implications for Social Change

The focus of this study was to determine whether gender-based educational barriers still exist within schools of nursing and if so, is there a relationship between those male nursing graduates who identify the most gender bias and gender-based educational barriers and their levels of resilience as measured by the BRS. Although the findings of this study demonstrated a weak correlation between the participants' scores on the IMFNPS and their corresponding scores on the BRS; the results provided an important glimpse into the educational experiences of male nursing students and served to validate the presence of many gender-based barriers which have been identified in

previous studies. Based on the scores on the IMFNPS as well as the comments from the study participants, many of these gender-based educational barriers continue to be a source of increased stress and role strain for some male nursing students. In addition, the study results indicated that nursing faculty are often unaware of the existence of these gender-based educational barriers and are not providing the gender-neutral learning environment that is needed for male nursing students to be successful in a female-dominated profession. With drop-out rates reported to be as high as 50% for some schools of nursing, it is vitally important that nursing educators recognize the important role they play in creating a gender-neutral, male-friendly educational environment.

The results of this study can positively impact social change by encouraging nursing faculty to focus attention on eliminating those gender-based educational barriers which were identified by the participants as the most prevalent and the most important. Change can not occur unless individuals are made aware of the need for change and the reasons why change is important. These findings can assist nursing faculty to understand the link between including information about the historical contributions of men in nursing and the fact that nursing has not always been a feminine profession. This can help to minimize some of the stereotypical attitudes regarding men who seek to work in female-dominated professions.

For some schools of nursing, the nursing curriculum needs to be revised so that it creates a gender-neutral learning environment where nurses are not referred to exclusively as “she” and where male nursing students do not feel as if they are constantly

under the microscope, having to prove that they belong in this female-dominated profession.

One of the most important findings of this study is that male nurses fear that they will be accused of inappropriate sexual touch when providing nursing care for female patients. As indicated in the comments, this fear begins in school, but extends into their professional practice. It is vitally important for members of the nursing faculty to understand that this is a very real fear that male nurses face and is it is one that is not shared equally by their female counterparts. This fear adds a level of stress and role strain that is unique to men in nursing. The results of this study can have a positive social impact if nurse educators are able to recognize this fear and provide male students with educational tools they can utilize to provide safe and effective nursing care for all their patients, regardless of gender. Evans (2002) found that gender relations in nursing are complex and that there is no one quick fix. However, the dialog must start in the classroom and in the clinical setting in order to "reduce the suspicion that surrounds men nurses' caring practice" and work to build alliances between all nurses (p. 447).

The results of this study also indicated that the participants scored high on the BRS. It may be that the participants were able to be successful in schools of nursing in part because of their high levels of resilience. As resilience is a skill which can be taught, this study can have a positive social impact by encouraging schools of nursing to integrate resilience education throughout the curriculum.

Recommendations for Action

The findings of this study did not support the hypothesis that the male nursing students who identified the greatest number of real or perceived gender-based educational barriers, also had the highest levels of resilience. However, the findings did support the conclusion that gender bias and some gender-based educational barriers are still present within schools of nursing and that some nursing faculty members are unaware of the impact these barriers have on the learning environment and the ability of male students to be successful in nursing programs. Based on the findings of this study, I recommend the following actions:

1. Nursing curricula should include the historical contributions that men have made to the profession of nursing so that all nursing students recognize that the feminization of the nursing profession is a fairly recent phenomenon.
2. Nursing faculty need to carefully review the nursing educational tools that are currently being utilized throughout the curriculum (e.g. text books, audiovisual materials, exams, case studies, simulation scenarios) to ensure that the material is gender-neutral and does not refer to the nurse as “she” and does not reflect a purely feminine perspective.
3. Schools of nursing need to ensure that all students have equal learning opportunities during the obstetrical, maternal/child clinical rotation. I recognizes that clinical experiences will differ from student to student and from clinical site to clinical site. However, male students should not be denied essential learning opportunities based solely on their gender.

4. Nursing faculty should be sensitive to male nursing students' fears of being accused of inappropriate sexual touch when providing intimate nursing care for female patients. These fears should be discussed openly during clinical rotations and the students need to be provided with appropriate education tools which can assist them in providing safe and effective patient care. Tools such as communication techniques, appropriate use of touch, appropriate methods of demonstrating caring, patient and family education methodology, coping strategies and techniques for managing difficult situations, as well as opportunities to work with other male nurses can help to alleviate or minimize the stress caused by these fears.
5. Female nurse educators need to search within themselves to determine if they have personal biases regarding the role of men in nursing. Some nursing faculty may not be aware that they are perpetuating some of the male nurse stereotypes (e.g. that male nurses tend to be effeminate, that they aren't as caring or compassionate as female nurses, that they should be used as muscle, and that men are just not as suited for the role of a nurse). In addition, nursing faculty need to ensure that they are not giving micro-messages through non-verbal language (i.e. looks, gestures, tone of voice and other forms of body language) that conveys the message that male nursing students do not belong in the nursing profession. Bias in any form is often subtle and not easily recognized for what it is. For that reason, it is important for schools of nursing to engage in faculty peer assessment. This can be accomplished by inviting

peer review, or faculty assessment by faculty members outside of the nursing department, or by video-taping learning sessions. Based on the assessment findings, faculty development programs could be created which focus on creating gender-neutral learning environments, providing culturally competent learning activities, identification of verbal and written bias in all forms of curricular language and the elimination of "negative micromessaging" (Bell-Scriber, 2008, p. 149).

6. The concepts and characteristics of resilience and methods for improving one's level of resilience and the ability to bounce back from stressful situations, should be a part of the nursing curriculum and should be reinforced each semester. By teaching these concepts, male nursing students may be better equipped to cope with the stress of nursing education, and the nursing profession may ultimately see an increase in the percentage of men who enter nursing and remain for the duration of their professional career.
7. More effort should be made to ensure that male nursing students have opportunities to work with other male nurses in the clinical setting.

Recommendations for Further Study

This study examined the correlation between real or perceived gender bias and gender-based educational barriers for recent male nursing graduates and their levels of resilience as measured by the BRS. Although the study was able to demonstrate that there has been some improvement in certain areas of gender-based educational barriers, there is still much work that needs to be done before nursing education can say that they

foster inclusiveness and provide a gender-neutral, male-friendly learning environment. The importance of recruiting more men into the nursing profession and the need to improve nursing education programs so that men feel welcome and supported, serves to emphasize the importance for further research in this area. The following are suggestions for further research on this and related topics:

1. While this study revealed that the majority of the participants scored high on the resilience scale, it would be important to look at those male students who failed or dropped out of the nursing programs. Understanding the resilience scores of those male students who did not succeed and why they were unsuccessful would help to shed light on a variety of issues including potential gender-based educational barriers. A study of this nature would lend itself to a qualitative approach focusing on the lived experience of men who elected to drop out of nursing to pursue other professional careers. I could work with individual schools of nursing in an attempt to improve retention rates by identifying the reasons why students voluntarily or non-voluntarily left the nursing program.
2. This study looked at gender bias and gender-based educational barriers from the perspective of the recent male graduate. A future study could focus on the perception of the nursing faculty at each of the schools represented in the original study to determine if they were able to recognize the same gender-based educational barriers that were identified by their students. Because bias in all its forms can be very illusive and people are often unaware of

their own verbal and non-verbal expressions of biases; a survey approach would probably not be effective for this type of study. Bell-Scriber (2008) recommended using outside reviewers to audit classes or video tape classes as a means to assess gender and ethnic bias. Validated assessment tools would need to be developed for use in this qualitative study approach using a participant observation model.

3. The mean age of the participants in this study was 33.5. This age represents a less traditional older student with 39 participants (*N*=97) indicating that they had a bachelors degree or above, prior to entering nursing. A study similar to this one could be completed using a more traditional, younger student population; to determine if the survey responses would be similar or very different. It would also be interesting to see if the younger male nursing students score lower on the resilience scale based on the fact that they would have had fewer life experiences to draw from.
4. If resilience is truly a skill that can be taught, it would be important to study nursing students before and after they have received resilience education and training to determine if their resilience scores improve. If the scores show improvement over the course of their nursing program, this would provide affirmative data to encourage more schools of nursing to include resilience education in their nursing curriculum. Resilience education involves learning how to react to stress and hardship before the event occurs. "There is good evidence that when people are put under pressure, they regress to their most

habituated ways of responding" (Coutu, 2002, p. 55). Based on this concept, resilience education should be taught as an integrated concept which is included throughout each semester rather than a single course. The literature is replete with examples of ways to measure various aspects of resilience such as the Resilience Quotient Test (Reivich & Shatte, 2002) and the Connor-Davidson Resilience Scale (Connor, 2006). Researchers would need to carefully select the measuring tools and the resilience definitions which provide the best fit for the study design.

5. This study focused on the responses of recent male graduates from one state in the southwestern part of the United States. The results of this study cannot be generalized for all schools of nursing. It is unknown whether similar studies in other regions of the country would elicit similar results. Future studies should address whether gender-based educational barriers are perceived differently in different parts of the country?
6. The participants in this study were predominantly White/European American. For this reason it was not possible to compare the responses by ethnic groups. If a larger study could be completed with a broader ethnic representation, it would be interesting to identify ethnic and cultural variations in the identified gender-based educational barriers, as well as differences in the resilience scores for each ethnic group.
7. I was unable to obtain the e-mail addresses of the study participants. The methodology for this study included using the mail service to send a letter

to each participant which asked them to manually enter a web address to take the online survey. If the request to participate in the survey as well as the web link for the online survey could have been distributed electronically, it might have yielded a much high response rare. Although the original study included 29 individual schools of nursing, some of the schools were represented by only one or two participants. Future studies using a larger population may reveal different results.

8. The results of this study were predicated on the participants' ability to clearly understanding the questions and their ability to accurately remember the events that occurred during their nursing education. Although the use of previously validated tools (IMFNPS and the BRS) helped to minimize misinterpretation of the questions, additional studies should be conducted with updated tools. Some of the barriers previously identified by O'Lynn (2004) and utilized in the IMFNPS, no longer seem to be issues (e.g. men are no longer being excluded from student activities, most of the participants indicated that they had family support to enter the nursing profession, and men were encouraged to enter leadership roles).
9. I attempted to minimize any negative effects that might stem from the participants not being able to accurately remember events during their nursing education by selecting participants who had successfully passed the NCLEX nursing licensure exam within the past twelve months. Future studies looking at gender bias and gender-based educational barriers should focus on male

students during their course of study to eliminate the concerns with memory inaccuracies, and also to identify the barriers that still exist and to determine what progress has been made to eliminate others.

Concluding Statement

This descriptive, correlational, survey study examined the prevalence of gender bias and the perceived significance of gender-based educational barriers for recent male nursing graduates. The study also focused on the relationship between male graduates that identified the greatest number of gender-based educational barriers and their level of resilience. The findings of this study provided a unique view of nursing education through the lens of male nurses who graduated from schools of nursing within the 12 months prior to the completion of the online survey. The study demonstrated that gender bias and certain gender-based educational barriers are still present in the schools of nursing represented by the study, and some of these barriers are an important source of stress for male nursing students. Some nursing faculty continue to use feminine terms when talking about "a nurse" and some clinical experiences are perceived as being unequal based on the student's gender.

The participants' mean resilience scores were above average and may provide valuable insight as to why this group of male nurses were able to successfully complete a nursing program while other male students in their class failed or dropped out.

The findings of this study serve to reinforce the important need for more research in the area of gender bias in nursing education and the implications of this bias on recruitment and retention of men in the nursing profession. The recommendations for

future studies reflect only the starting line of a long race to eliminate gender bias and gender-based educational barriers in nursing education, and to provide all nursing students with a learning environment that is truly gender neutral.

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Appendix A: Survey Informed Consent

CONSENT FORM

You are invited to take part in a research study regarding potential gender-based educational barriers within schools of nursing. You were chosen for the study because you have recently completed your nursing education. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Nancy Spahr, who is a doctoral student at Walden University. In addition the researcher is an adjunct faculty member of the nursing program at Arizona State University and works as a Clinical Nurse Specialist at Mayo Clinic Arizona.

Background Information:
The purpose of this study is to identify real or potential gender-related educational barriers that might be present in schools of nursing and to evaluate the levels of resilience in those male nursing graduates who have been able to successfully complete their nursing program.

Procedures:
If you agree to be in this study, you will be asked to:

- Complete the on-line survey which will take approximately fifteen minutes. By clicking on the "I agree" button, you will be taken to the survey.

Voluntary Nature of the Study:
Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one at Arizona State University, or Mayo Clinic will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind during the study. If you feel stressed during the study you may stop at any time. You may skip any questions that you feel are too personal.

Risks and Benefits of Being in the Study:
This study will involve no additional participation outside of the initial survey. There will be no risks to the participant and the results of the study will contain no information identifying the names or other identifying information of individual participants. Your participation in this study will help to add to the body of knowledge regarding real or potential educational barriers faced by male nursing students.

Compensation:
There will be no additional compensation for participating in this study outside of the token $1.00 which was included as a thank you, in the introductory letter. The $1.00 is yours to keep whether you complete the survey or not.

Confidentiality:

Any information you provide will be kept anonymous. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via e-mail at nancy.spahr@waldenu.edu or by telephone at 480-301-6680. . If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is **IRB will enter approval number here** and it expires on **IRB will enter expiration date.**

Please print of copy of this consent form for your records.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By selecting "I consent" you will be automatically taken to the on-line survey.

I have read the above information and I consent to participate in this study:

☐ I consent

☐ I do not consent

.

Appendix B: IMFNPS©

Inventory of Male Friendliness in Nursing Programs-Short © (IMFNP-S: O'Lynn, 2007)

Part I: Introduction
Please answer the following questions for some background information.

1. Current age: ____
2. School you attended that prepared you to take your initial RN licensure examination.____
3. Year of graduation: ____
4. Your identified ethnic/racial category: _____________________________
5. Were there men on the nursing faculty while you were a student?
   ______YES ______NO
6. Were there other male nursing students in your graduating class?
   _____YES _____NO

Part II: Think back to your time in nursing school. Please respond to each statement with your general recollection as it applies to your school experience.

7. Most of my nursing instructors referred to the nurse exclusively as "she".

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

8. My nursing program included a historical review of the contributions men have made to the nursing profession.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

9. My nursing program actively recruited men to enroll as students.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

10. There were times in class when nursing faculty made disparaging remarks against men.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

11. My nursing program included content on men's health issues.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

12. I was provided opportunities to work with male RN's in my clinical rotations.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

13. During my obstetrics (mother/baby) rotation, I had different requirements or limitations placed on my compared to my female classmates.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

14. Many believe that men and women have different communication styles. My nursing program discussed how to overcome communication differences to ensure good therapeutic and working relationships.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

15. I was invited to participate in all student activities.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

16. My nursing program encouraged me to strive for leadership roles.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

Part III: The following statements pertain to your opinion or belief about various topics. Please think back to your experience as a nursing student and indicate the appropriate response.

17. People most important to me were supportive of my decision to enroll in nursing school.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

18. I felt I had to prove myself in nursing school because people expect nurses to be female.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

19. In my nursing program, male and female students were treated more differently by the instructors than I had originally anticipated.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

20. My gender was a barrier in developing collegial relationships with some of my instructors.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

21. As a male student, I felt welcomed by most RN staff in my clinical rotations.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

22. As a male student, I was nervous that a woman might accuse me of sexual inappropriateness when I touched her body.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

23. My nursing program prepared me well to work with primarily female co-workers.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

Appendix C: Permission to Use IMFNP-S©

From: O'Lynn, Chad [olynn@up.edu]
Sent: Thursday, December 30, 2010 1:33 PM
To: Spahr, Nancy P., C.N.S., R.N.
Cc: O'Lynn, Chad
Subject: RE: Request to use your research tool (IMFNP)

Attachments: IMFNP_short.doc; Long_Form_Final_IMFNP.doc
Dear Nancy—

What a wonderful project!

Yes, by all means you may use the instrument. All I ask is that you supply me the following once you have completed your data analysis:

1. Your total sample
2. Demographics of your sample
3. Aggregate scores for each of the items on the tool

I am collecting a master data base for the instrument.

I am attaching two versions of the tool, the original tool and the shortened version. Different researchers have had preferences for one or the other.

Please keep me posted on your progress, and please let me know how I might be of any assistance to you!

Chad O'Lynn, PhD, RN, RA
Assistant Professor
University of Portland, School of Nursing
5000 N. Willamette Blvd.
MSC-153
Portland, OR 97203
503-943-7357 (office)
503-943-7729 (FAX)
olynn@up.edu

Appendix D: BRS©

The Brief Resilience Scale©

1. I tend to bounce back quickly after hard times.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

2. I have a hard time making it through stressful events (R)

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

3. It does not take me long to recover from a stressful event.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

4. It is hard for me to snap back when something bad happens (R)

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

5. I usually come through difficult times with little trouble.

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

6. I tend to take a long time to get over set-backs in my life (R)

___Strongly Agree ___Agree ___Neutral ___Disagree ___Strongly disagree

Appendix E: Permission to Use BRS©

From: Bruce Smith [mailto:bws0513@gmail.com]
Sent: Thursday, December 30, 2010 10:30 AM
To: Spahr, Nancy P., C.N.S., R.N.
Subject: Re: Request to use your Brief Resilience Scale (BRS)

Hi Nancy,

It sounds like a very interesting and worthwhile study. You are welcome to use the scale. The only thing I ask is that you send me a copy of whatever results you obtain regarding the scale. I have attached the originally validation article in case you don't have it and a couple other articles about studies that have used the scale. The scoring is explained in the validation article but basically just involves reverse coding three of the items and taking the meaning of all the items. I also attached a copy of the measure as it usually appears in studies. I wish you the best in your research.

Kind Regards,

Bruce

Appendix F: E-mail Request and Approval to Obtain

List of Names from State Board of Nursing

From: Cory Davitt [cdavitt@azbn.gov]
Sent: Wednesday, July 06, 2011 3:35 PM
To: Spahr, Nancy P., C.N.S., R.N.
Subject: RE: Request for list of Names

Attachments: Mailing List Info-Order Form.pdf
Nancy,

Pam forwarded me this email. I have attached a copy of our order form. Please fill it out and return it with payment. Because your request is little different then the normal options please include the details of the request in the comments section. I want to make sure I get the right selection of licenses to send your way.

Please let me know if you have any questions.

Cory Davitt, Network Operations Director
Arizona State Board of Nursing
cdavitt@azbn.gov
(602)771-7808

From: Spahr, Nancy P., C.N.S., R.N. [mailto:Spahr.Nancy@mayo.edu]
Sent: Wednesday, July 06, 2011 3:30 PM
To: Pam Randolph
Subject: Request for list of Names

Hi Pam, I am requesting a computer disc containing the list of all male RN graduates who have been licensed by exam within the past 12 months. I am not requesting e-mail addresses, only the physical address of the RN. I understand that there will be a $100.00 fee attached to this request. Thanks so much for your assistance.

Nancy Spahr, MS, RN, MBA, CNS
Clinical Nurse Specialist
Mayo Clinic Arizona
Office: 480-301-6680
Pager: 127-301-9260
E-mail: spahr.nancy@mayo.edu

Appendix G: Introduction Letter

Nancy Spahr
17523 East Catawba Plaza
Fountain Hills, AZ 85268 September 11, 2011

«GreetingLine»

As a newly licensed male Registered Nurse, I am asking for your help to take part in a research study that will look at some of the unique challenges male students face in schools of nursing. Our country is still facing a shortage of nurses; and in a report by the American Association of Colleges of Nursing (AACN), the shortage of Registered Nurses in the U.S. could reach as high as 500,000 by 2025 as the demand for heath care continues to grow along with the aging of the baby boomer population.

One solution which has been proposed to resolve this problem is to recruit more men into the nursing profession. Unfortunately, recruiting more men may not be the answer because even though more men are entering nursing, they are also leaving the profession four times more frequently than their female counterparts (Inoue, Chapman, & Wynaden, 2006, p. 560). In addition, male nursing students are more likely than female students to drop out of nursing school with attrition rates reported as high as 40-50% (Stott, 2004, p. 91).

Your participation in this study is completely voluntary. I am a doctoral student at Walden University, and this survey is part of my doctoral study. At the end of this letter you will find a website. If you log into this website it will take you to the on-line survey. This survey will take you approximately 15 minutes to complete, and individual responses will be anonymous. Your consent to participate is incorporated into the on-line survey.

I sincerely hope that you will agree to participate in this important research project. It is my belief that studies like this one will help recruit and retain more men in the nursing profession, and will assist in creating a more gender-neutral learning environment for all students. As a way of thanking you for taking the time to complete the survey, a token gift of $1.00 is enclosed. Thank you for your consideration of this study.

Please log into the following website to take the survey:

http://www.surveymonkey.com/s/RNgender

Sincerely,

Nancy Spahr, MS, RN, MBA, CNS
spahr.nancy@mayo.edu

Stott, A. (2004). Issues in the socialization process of the male student nurse: Implications for retention in undergraduate nursing courses, *Nurse Education Today, 24,* 91-97.

Inoue, M., Chapman, R., & Wynaden, D. (2006). Male nurses' experiences of providing intimate care for women clients. *The Authors Journal,* 559-567.

Appendix H: Reminder Letter

Survey Reminder

Dear

As a reminder, you were recently sent a letter asking for your participation in a nursing research study focusing on gender-based educational barriers and the unique challenges male nurses face in schools of nursing.

If you have not already done so, I urge you to go to the website listed below and complete the survey. It is my sincere hope that studies such as this will raise awareness of the issues related to gender bias, and will ultimately help us recruit and retain more male nurses.

If you have completed the study, thank you very much for helping to make an important difference in nursing education.

Please log in to: https://www.surveymonkey.com/s/RNgender
to complete this on-line survey.

Thank you in advance for participating in this research project.

Nancy Spahr, MS, RN, BC, MBA, CNS
spahr.nancy@mayo.edu

Curriculum Vitae

Nancy Spahr, MS, RN-BC, MBA, CNS

Email: spahr.nancy@mayo.edu

Skills Summary

More than 40 years of nursing experience working in clinical areas such as emergency nursing, medical-surgical nursing, and ambulatory care. Sixteen years working as an ambulatory care clinical nurse specialist at Mayo Clinic with emphasis on policy development, scope of practice, and staff competency development. Fifteen years experience teaching in baccalaureate and associate degree nursing programs.

Education

Bachelor of Science in Nursing (BSN)
College of Saint Teresa, Winona, Minnesota GPA: 2.57/3.0

Masters of Science in Nursing (MS)
Texas Woman's University, Denton, Texas GPA: 4.0/4.0

Masters of Business Administration (MBA)
Bentley College, Waltham, Massachusetts GPA: 3.65/4.0

Doctorate of Education (EdD)
Walden University GPA: 4.0/4.0

Experience

2005 – Present **Nursing Faculty, BSN program**
Arizona State University, Mayo Clinic Campus (Phoenix, AZ)

- Course Coordinator and primary faculty for didactic Nursing Fundamentals Theory course (Junior 1 semester)
- Course Coordinator and primary faculty for Community Health Nursing Theory course (Senior 1 semester)
- Responsible for course development, classroom instruction, test construction, student counseling, and development and management of Blackboard course shell

1997 – Present

Clinical Nurse Specialist
Mayo Clinic Arizona (MCA) (Scottsdale/Phoenix, AZ)

- Responsible for establishing and maintaining clinical standards of practice at all MCA ambulatory sites including strategic planning, scope of practice issues, quality improvement measures, project management, licensure and accreditation, and clinical nursing competencies
- Project leader for ambulatory falls prevention team and management of medical emergencies in all ambulatory settings

9/1996 – 7/1997

Clinic Manager
Mayo Fountain Hills Primary Care Center (Fountain Hills, AZ)

- Responsible for establishing a new Mayo Clinic primary care practice with the first electronic medical record
- Managed all aspects of the clinic operations

1990 - 1996

Professor of Nursing
New Hampshire Technical Institute (Concord, NH)

- Served as freshman coordinator, learning resource laboratory coordinator, and clinical instructor in associate degree nursing program

1992 – 1996

Staff Nurse (Emergency Department)
Parkland Hospital (Derry, NH)

- Worked per diem to maintain clinical skills while teaching

1988 - 1990

Staff Nurse (Emergency Department)
Elliot Hospital (Manchester, NH)

1983 - 1984

Nursing House Supervisor
Memorial Hospital (Nashua, NH)

1976 - 1983

Associate Director of Nursing
Lowell General Hospital (Lowell, MA)

- Managed and directed all nursing activities for the medical-surgical units, intensive care, intermediate care, oncology unit, emergency department, and staff development for 300-bed hospital

1972 - 1974

Nursing Instructor
Midwestern State University (Wichita Falls, TX)

1970 - 1972

Staff Nurse (Emergency Department)
Barnes Hospital (St. Louis, MO)

1969 - 1970 **Charge Nurse (Surgical Unit)**
Presbyterian Hospital (Dallas, TX)

1968 - 1969 **Public Health Nurse**
U.S. Peace Corps (Punjab, India)

Professional Associations

Current Arizona RN License (Certified Advanced Practice RN: Clinical Nurse Specialist)
Certified in Ambulatory Care Nursing (ANCC)
Member of National League for Nursing (NLN)
Member Sigma Theta Tau (Nursing Honor Society)
Member Beta Gamma Sigma (Business Honor Society)
Member AAACN (American Academy of Ambulatory Care Nursing)
Served on AAACN Board of Directors (2007-2008)
Chair of the 2006 AAACN Program Planning Committee for National Conference
Served on Phoenix College Medical Assistant Advisory Council for 5 years
Executive Director for non-profit humanitarian organization involved in medical missions to Vietnam (Vital Links for Humanity). Participated in six medical mission trips to Vietnam (1998 – 2003)
Current BLS instructor
Editor of the Mayo Clinic Nursing newsletter for 10 years
Frequent contributor to AAACN newsletter *ViewPoint*