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Existence of implicit racial bias in nursing faculty

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THE EXISTENCE OF IMPLICIT RACIAL BIAS IN NURSING FACULTY

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ABSTRACT

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This study examined the existence of implicit racial bias in nursing faculty using the Implicit Association Test (IAT). It was conducted within a critical race theory framework where race was seen as a permanent, pervasive, and systemic condition, not an individual process. The study was fueled by data showing continued disparate academic and NCLEX-RN pass rates between students of color and White nursing students. In exploring why these disparities continue to exist in spite of increased efforts at recruitment and support, this study used the Skin-Tone Implicit Association Test to determine if racial bias might be a factor.

Baccalaureate nursing faculty from diverse institutions (size, public/private, geographic area) completed the Skin-Tone IAT, explicit measures of bias, and a demographic questionnaire. Results showed statistically significant levels of implicit racial bias in nursing faculty and statistically significant differences between measures of implicit bias and explicit measures of bias. Measures of implicit bias and explicit measures of bias in nursing faculty did not significantly differ from data gathered from a sample of over 121,000 people who completed both surveys on the public IAT website.

Establishing the existence of racial bias in nursing education leads to important discussions about the Whiteness of nursing and nursing education. This study concluded with concrete steps that could be taken to create a more welcoming and power-balanced

environment for nursing students of color. These changes--occurring at the interpersonal, departmental, and institutional level--could lead to greater student success and a transformation of nursing education.

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INTRODUCTION

The quest for a more diverse nursing profession that provides better care for an increasingly diverse population in the United States has fueled countless conversations about how nursing education can attract and support more under-represented students. This need for more diversity in nursing occurs in the context of a generalized nursing shortage that is projected to worsen in the years ahead. The literature provides several examples of programs that focus attention on the recruitment and retention of minority students. Many of these programs show evidence of successful outcomes for students of color, both in terms of program completion and NCLEX-RN pass rates. Still, as will be discussed later, nursing remains a mostly White profession with disparate academic and NCLEX-RN success rates for White students and students of color. With these issues as background, this study examines what may be contributing to lower success rates for nursing students of color, namely unrecognized faculty bias toward the student of color.

In the following sections, the historical roots and current existence of racism in the United States is followed by discussions of recruitment and retention efforts in nursing education. Connections between racism and individual bias are discussed in the context of the call by several organizations to educate greater numbers of racially and ethnically diverse health providers. It is believed that these under-represented providers will provide culturally and ethnically appropriate care for diverse patients, at least for those who have access to care, thereby minimizing or eliminating health disparities (Institute of Medicine, 2002). A discussion of how future providers of color are educated will lead to analysis of the teaching and learning process within nursing education. Although most nursing schools have set goals to increase the enrollment and success of

students of color, most continue to have challenges in meeting those goals (Johnston, 2001; Klisch, 2000). Many nurse educators and university administrators struggle over the cause of the disparate success between White students and students of color.

This study is grounded on the premise that nursing education and nurse educators cannot remove themselves from the greater cultural influences present in the United States, specifically racism. Although these terms will be explained more fully, it is important to clarify the distinction between racism and bias early in this discussion. Racism is an institutional and systemic process whereby a group of people is restricted in achieving full access to the benefits of that institution. Bias is a personal attitude toward others that manifests itself in a variety of way s that are discussed later. It follows that establishing the existence of racism in nursing education, and the bias that proceeds from and helps maintain it, could provide valuable information about the faculty/student of color relationship and, ultimately, insight into experiences that may influence recruitment, retention, and success of students of color. However, research has shown (Green et al., 2007) a substantial difference in how health care providers respond to questions of explicit bias (bias that can be measured in written surveys) and bias that is essentially unconscious to that provider (implicit bias). This study explores the existence of implicit racial bias among nurse educators in BSN programs in the United States. It uses the Implicit Association Test, an internet-based program that measures unconscious bias toward people with different skin tones. This is important information for nurse educators to have because under-represented student recruitment and retention programs may be undermined if the encounter between the student of color and the faculty member is strained because of unconscious expressions of racial bias. In bringing implicit bias to

consciousness, educators have the opportunity to address, through training and dialogue, ways in which the classroom can become a more open, welcoming, and power-balanced environment. This hospitable academic environment would hopefully lead to higher levels of program completion and NCLEX-RN pass rates.

Background of the Study

Two important areas provide background for this study. One is the disparate success rate of nursing students of color. The other provides a context in which the causes of these disparities can be examined--the history of racism in America and the legacy of continued racial bias. This section begins with a discussion of the latter, leading to an examination of how academic disparities continue to exist in the context of the complex history of race in America. Both of these issues ultimately impact nursing education and nurse educators. Racism exists within a moral framework that calls for deeper exploration into issues of power and privilege. This researcher asserts that issues of power and privilege, resulting from racism and bias, create environments within nursing education that make it difficult for students of color to succeed.

In order to begin addressing issues of racism and disparities, a working definition of racism would be helpful. For the purpose of this study, Krieger's (2003) definition of racism is used. She describes racism as those "institutional and individual practices that create or reinforce oppressive systems of race relations" (p. 195). Within these systems, people restrict--by judgment and action--the lives of those individuals against whom they discriminate. This definition requires further inquiry into the concept of race itself. Historically, race was seen as a biological explanation of genetic difference. This idea has been refuted by several scientific disciplines (Kawachi, Daniels, & Robinson, 2005;

Krieger). According to Krieger, race is actually a construct forged "by oppressive systems of race relations justified by ideology" (p. 195). As a result, groups of people are racialized by the oppressive systems that define them. This concept is explained further in following sections.

Theoretical Frameworks

This study is predicated on Jones' (2000) concept that racism exists on three levels: institutionalized, personally mediated, and internalized. In her conceptualization of racism, Jones defines institutionalized racism as the difference in access White people in the United States have over racialized groups to goods and services (adequate housing, medical services, full-service supermarkets, clean environment) and opportunities (adequate employment, quality educational environments including access to extra-curricular activities). This difference also includes having a voice in government and the media as well as having access to information, especially one's own history. According to Jones' framework, accumulated injustices in each of these areas have created a lower socioeconomic status for people of color. Instead of those in power taking the initiative to examine these injustices and moving to reverse or ameliorate them, the injustices have become embedded in the structure of American life. As a result, economic and social injustices, supported by racism and bias, have largely gone unexamined by White people in the United States. The lack of critical thinking about racism precludes understanding the connection between race and social and economic status. This lack of examination into the existence of institutionalized racism perpetuates unearned power and privilege for the dominant culture. As such, racism has never been an individual process but one

that maintains itself through political, economic, global, educational, and other institutions (Sullivan, 2006).

Personally mediated racism includes intentional or unintentional expressions of prejudice or discrimination by individuals (Jones, 2000). It includes overt person-to-person activities such as devaluing another because of their race, being fearful of another because of their race, or generally treating a person of another race as less than human. These attitudes and actions comprise the commonly held definition of racism and racist behavior in the United States. As such, it supports the point of view of individuals who claim they are not racists because they do not exhibit these overt behaviors toward people of color. It fosters what Barbee (1993) and Bonilla-Silva (2006) label aversive racism, i.e., individuals have been socialized to believe they act in egalitarian, non-discriminatory ways. As will be discussed later, this view prevails in nursing education.

Internalized racism expresses itself when the person of color accepts the messages put forth by the dominant culture as their own. Signs of this form of racism include outward actions such as hair straightening and skin bleaching; they also manifest themselves in more subtle ways such as low self-esteem, self-destructive activities, and depression. In this form of racism, people of color perceive themselves as limited in their ability to fully self-express, fulfill their dreams, or determine their futures (Jones, 2000). This definition of internalized racism is problematic because it tends to support the idea that self-concept is created independently of the greater societal structure in which the person of color lives.

While Jones' (2000) framework provides a valuable structure for identifying various forms of racism that may exist in nursing education, it is essential to examine

deeper issues of racism, power, and privilege when attempting to determine the variables of student success. Although determining the existence of faculty bias is the ultimate goal of this study, the inquiry exists within a critical framework. Critical race theory is built on the premise that racism is a permanent, pervasive, and systemic condition, not an individual process. As a result of this condition, racism adapts to changes in the culture but never dissipates. The insidious nature of racism requires that scholars attempting to challenge inequities--in this case, academic disparities--must deal with the systemic nature of racism and challenge the positivist point of view that inquiry can be conducted in a neutral, colorblind manner (Vaught & Castagno, 2008).

Sullivan (2006) uses critical race theory as a framework for discussing unconscious habits that perpetuate White privilege. These habits are formed through interactions with social structures and are resistant to change. In discussing the challenge of accessing unconscious thoughts and examining unconscious habits, Sullivan maintains that we must not "write off" unconscious habits as being inaccessible; otherwise, we create a "self-fulfilling" situation that becomes impossible to change (p. 7). This assertion clearly provides support for the use of the Implicit Association Test (IAT), the tool being used to measure bias in this study. The theory supporting the IAT is that we have deep, unconscious beliefs and that those beliefs can be accessed by circumventing the explicit thought process (Project Implicit, 2008). The theory also proposes that once those implicit associations are made conscious, the possibility for change exists. These theories, along with a more detailed explanation of application to this study, are discussed in greater detail in following chapters.

History of Racism

In determining how racism impacts nursing education and consequently minority student success, it is important to look at the history of race as a concept. The concept of race is a relatively recent construct, becoming part of the worldview about five centuries ago during the time of European exploration and colonization (Tashiro, 2005). In the 18th century, Linnaeus set forth a classification of all known organisms including human beings. His descriptions attached certain behavioral traits to each human classification. Also in the 18th century, Blumenbach divided humans into five categories, each originating from a distinct geographical area: Caucasian, Mongolian, Ethiopian, American, and Malay. His rigid hierarchical system furthered Linnaeus' work of connecting human physical characteristics with behavior. Adoption of this classification scheme was adopted into mainstream society and fostered the belief that differences between people are biologically based (Tashiro).

The belief in biological difference informed early U.S. history. The delineation of White vs. non-White was obviously most striking with regard to slavery and the conquering of indigenous peoples. The belief that Blacks and indigenous peoples were genetically inferior provided a foundation for overt legal racism. It is clear that an entire social system, in fact an economic system that encompassed much of the world, was constructed to deny people of color a place in mainstream society. This system prevented them from voting, owning land, being educated, and holding a job--all the activities necessary to create and maintain a decent life (Brown et al., 2005; Tashiro, 2005). The system also helped maintain a pool of low-wage, exploitable labor (Jacobson, 1998).

Although more overt forms of discrimination were outlawed with the passage of the Civil Rights Act of 1964 and the Voting Rights Act of 1965, more covert forms of

segregation and discrimination have yet to be addressed in the United States (Bonilla-Silva, 2006; Smith, 2005). The challenge for those studying covert forms of discrimination is in clearly identifying them and discerning how they negatively impact the lives of people of color while at the same time maintaining a system of White privilege and power (McIntosh, 1990).

One of the challenges in naming and describing racism is the difference in perception by Whites and people of color. Carlson and Chamberlain (2004) cite studies showing how White parents in the United States socialize their children to a type of color-blindness, i.e., they do not talk about their own Whiteness as a form of privilege nor do they talk about race at all. This passive attitude allows the persistence of the historically normalized structure of racism. On the other hand, Black children are very sensitive to race and are not reluctant to discuss it. The lack of cross-racial discussion results in Whiteness being seen as the norm against which all others are compared (Frankenberg, 1999; Wise, 2005).

This "Black-White perception gap" (Carlson & Chamberlain, 2004) sheds light on the barriers that limit, or exclude altogether, an examination of the role of racism in nursing. When the perspectives of persons of color are missing, White nurses do not have the opportunity to comprehend the physical, psychosocial-emotional, and spiritual effects of living with discrimination and prejudice. When emphasizing empirical research, White nurses may seldom consider the socially constructed experience of people of color. If nursing does not acknowledge the role of racism in the profession, it runs the risk of saying that race is the cause of academic and employment disparities. When race is the problem, the victim can be easily blamed, thereby making the person of color the

problem. A reductionist focus on the individual is the basis of the biomedical model; however, this paradigm is not sufficient when examining the multidimensional constructs of prejudice and racism (Carlson & Chamberlain).

Krieger (2003) contributes to this discussion the need to clearly identify racism as a contributing factor in the existence of disparities. She compares the recognition of child abuse as a legitimate syndrome with public health consequences to today's recognition that racism negatively affects population health. The issue of child abuse did not become the subject of scientific research until 1962 with the publication of Kempe et al.'s (as cited in Krieger) article on the "battered child syndrome." It is obvious that child abuse existed before that time; however, until the problem was named and described, it remained a private issue. Krieger asserts that health disparities research is at that juncture with racism. Racism does exist and has been the cause of disparities (both health and academic); but until it is named and described, there will be no scientific inquiry into its effects.

The color-blind worldview permeates the mainly White body of nursing educators as well as nursing practitioners and researchers, thereby limiting, or excluding altogether, research into nursing education from the perspective of under-represented or racialized populations (Carlson & Chamberlain, 2004). These limitations, along with the reluctance to clearly name and describe racism as a cause of disparities, highlight many of the barriers that keep nursing education from fully examining and appreciating racism and bias within the teacher/student relationship.

The Call for More Diverse Health Care Providers

In 2002, the Institute of Medicine (IOM) issued a report summarizing over 100 studies that examined the quality of health care for minority groups. In the process of their review, they controlled for differences in income, insurance, and access to health care. The IOM study concluded that "although myriad sources contribute to these disparities, some evidence suggests that bias, prejudice, and stereotyping on the part of healthcare providers may contribute to differences in care" (p. 1). The IOM went on to suggest various interpretations of the disparity data. Of interest in the current discussion was the admonition to educate greater numbers of minority health care providers. While cross-cultural education for all providers is seen as beneficial, there is also recognition of how unconscious bias and prejudice influence clinical decisions made by providers (Green et al., 2007; Institute of Medicine, 2002). Health professionals under pressure to care for more patients in less time are forced to make quick assessments. As a result, providers are unable to take the time to listen to and understand the individual needs of patients who may have distinct cultural beliefs and needs. The IOM asserts the lack of attention to cultural beliefs and needs is likely to result in "negative outcomes due to lack of information, to stereotypes, and to biases" (p. 5). This researcher suggests that the same lack of awareness and sensitivity to cultural beliefs and needs is operative for nursing faculty with regard to students of color.

The solution proposed by the IOM (2002) and Sullivan (2004) is to recruit, retain, and support students of color in successfully completing health professions programs and ultimately pass the NCLEX-RN. The IOM and Sullivan, along with others (American Association of Colleges of Nursing, 2008; Guhde, 2003), assert that racially and ethnically diverse providers deliver more culturally competent care to a diverse

population, thus producing better health outcomes. At the same time, minority providers are more likely to care for underserved populations and, in the process, provide more effective care when compared to White providers in the same context (Shi & Stevens, 2005). While research supporting this position is clear, the question remains--how can nursing education overcome inherent stereotypes and biases against students of color if the issue has not been specifically identified as existing within nursing and nursing education? Answering this question requires a deeper look into the nature of nursing and its traditional ways of dealing with diversity.

Diversity in Nursing

Having heard the call for a more diverse nursing profession, most nursing programs have been striving to increase enrollment of minority students. Statistics show, however, that challenges exist in this regard. There is no accurate accounting of minority nursing student enrollment and attrition nationwide; therefore, educators are left to infer from the demographics of practicing nurses what may be happening in the recruitment, enrollment, and educational process. In examining the overall demographics of registered nurses in the U.S., it was discovered that 89.3% are White (American Association of Colleges of Nursing, 2008) even though Whites make up only 64.7% of the population (U.S. Census Bureau, 2000). Nurses from minority backgrounds comprise 10.7% of registered nurses (American Association of Colleges of Nursing) while racial/ethnic minorities comprise 35.3% of the population (U.S. Census Bureau).

Although these statistics do not provide specific data on student diversity, they do provide information on which research hypotheses can be made. The first is that fewer minority students are entering nursing programs, resulting in fewer minority registered

nurses. If this is the case, then these data are indicative of a recruitment problem and these barriers to recruitment need to be explored. The second possible scenario is that minority students are entering nursing programs but dropping out before completion. In this instance, there is a need to examine the various academic and relational processes of nursing education to determine whether specific factors lead to minority student withdrawal. The third scenario is that students successfully complete the nursing program but do not successfully license. Barriers to licensure need to be examined in this case.

Traditionally, increasing the number of minority registered nurses has centered on increasing the enrollment of minority students. This has been accomplished through several methods: (a) pre-nursing recruitment in middle and high school; and (b) availability of summer nursing camps that provide opportunities to learn basic nursing skills, visit clinical sites, and interact with practicing nurses and nursing faculty (Johnson & Johnson Services, Inc., 2008). Comprehensive orientation programs have addressed issues of particular concern to minority students including financial aid, academic support, and the existence of cultural support within the greater university environment. Throughout the recruitment and orientation process, there is a strong emphasis on family inclusion, an issue of particular concern to minority students (Stewart, 2005). Schools of nursing that have implemented comprehensive recruitment, orientation, and support programs have documented increased graduation rates for students of color (Stewart; University of North Dakota, 2008).

Academic and NCLEX success of minority students in some nursing programs, however, is counterbalanced by research highlighting that, for many students of color, additional challenges exist after being admitted: social barriers including isolation,

loneliness, English-as-a-second language issues, and discrimination (Gardner, 2005). Other studies report perceived barriers for students such as fear of failure and institutionalized racism (Wilson, Andrews, & Leners, 2006). The persistence of these negative experiences leads many students to leave nursing programs.

Using Jones' (2000) theoretical framework of racism, questions arise from these two areas of research regarding issues of personally mediated and institutional racism. Is the success of minority students in nursing programs due to the external and internal support strategies themselves or has something within the institution changed in the process of becoming a more equitable, supportive environment? Have the individuals within the university and the nursing program, as a result of their commitment to create a more diverse student body, begun to examine and alleviate issues of bias and racism at both the individual and institutional level?

Pedagogy--how the curriculum is presented and the relationship between faculty and nursing student--is another important element in student success. In programs documenting minority student success, there has been a concerted effort to make major changes in how courses are taught, especially those with the highest failure rates (Stewart, 2005). These pedagogical changes include many of the strategies outlined in multicultural education literature including presenting multiple points of view, creating opportunities for cross-cultural learning experiences, and using varied teaching strategies and assessment processes, to name just a few (Banks et al., 2001).

Again the question can be asked--is the success of minority students attributable to the change in pedagogy or have nursing faculty who teach using multicultural strategies discovered that the predominant ways of teaching nursing are often grounded in

the theories of the dominant culture? In the case of nursing, the discipline is mainly a White, middle class, European-American ideology that is inconsistent with how minority cultures "organize processes of learning" (Bailey & Pransky, 2005, p. 11). In order for mostly White nurse educators to put aside this dominant ideology, they need to be willing to accept the "other" point of view. In this process, faculty would also come to terms with their own bias and prejudice (Wise, 2005). The larger questions of institutional and pedagogical change are beyond the scope of this study. However, they point to the need to determine whether a core issue in minority student academic disparity is the existence of bias in nursing education.

Implications for Nursing Education

Nursing education is the process whereby students are socialized into the professional nursing role. Hence, a discussion of racism and bias in nursing education naturally connects with how minority nurses succeed in nursing programs and, ultimately, how all nurses practice with minority patients and clients. Eliason (1999) and Barbee (1993) list four aspects of nursing education that create a climate whereby racism goes unacknowledged. First, nursing education places a strong emphasis on empathy which perpetuates the individual, psychologized perspective. This leads nurses to believe that they are treating all patients the same. Second, students are often focused solely on the individual and away from social, economic, and political health determinants. Third, faculty in nursing schools have historically preferred a homogeneous student body because it is a more efficient and less complicated way of teaching (faculty and students come from the same, mostly White background). Last but not least, nurses "need" to avoid conflict, i.e., nurses tend to be uncomfortable with confrontation at all levels of

practice, education, and research. These foundational beliefs and practices in nursing education lead to denial of racism and a "color-blind perspective," further leading to a belief that race is irrelevant (Eliason, p. 210). Further discussion of how these tenets manifest themselves within nursing education will take place in the review of literature.

Racism exists within a firmly rooted power structure in this country. Because nursing is a microcosm of the larger culture, it cannot remove itself from issues of racism at all levels of nursing research, practice, and education. According to Krieger (2003), many say that issues of racism are political, not scientific, and are, therefore, not to be addressed by the scientific community. Nurses need to strongly disagree with this assessment. When it comes to the consequences of racism, the best research methods available need to be employed in describing, naming, and dealing with this issue.

Problem Statement

Historically, measuring bias has been limited to qualitative analysis of the lived experience of people of color. Attempts to expand this research by measuring explicit racism and bias in White health care providers (measured by asking providers about their attitudes and actions toward people of color) have produced suspect results because of the empathetic and universal focus of health care delivery (Green et al., 2007). Health care providers are trained to deliver unbiased care to clients, while at the same time being empathetic to the individual needs of those clients. As a result, they tend to provide socially desirable responses to explicit questions consistent with their educational training.

Recent studies have demonstrated the validity and reliability of using the Implicit Association Test (IAT) to measure bias toward people of color (Green et al., 2007;

Greenwald, Nosek, Banaji, & Klauer, 2005; Project Implicit, 2008). The tool provides researchers with a way of measuring bias that supports racism and, specifically, bias of nursing faculty toward students of color. The relationship between the educator and student is a key element in student success. What happens if educators have biased tendencies or racist beliefs about the student? What if those biases are not consciously known by the faculty member? These are important questions for nurse educators to ask as they work toward fostering increased levels of program completion and NCLEX-RN pass rates for minority students, and as they nurture a more diverse nursing profession to care for an increasingly diverse America.

Research Question and Hypotheses

The research question for this study is as follows:

To what degree does implicit racial bias against students of color exist in nursing faculty teaching in BSN programs in the United States?

Research hypotheses supporting this question include

H1 Unconscious implicit racial bias exists in nursing faculty.

H2 Implicit racial bias is associated with certain demographic criteria (e.g., age, years teaching nursing, geographic location, racial self-classification, gender, etc.).

H3 Differences exist between an individual's level of explicitly reported racial bias and level of implicit racial bias.

Professional Significance of the Study

As the United States becomes a more diverse nation and as health care providers strive to eliminate health disparities, issues of power, privilege, discrimination, and racism need to be addressed. Nursing is attempting to respond to the call for a more

diverse nursing profession by addressing multicultural issues in student recruitment, retention, and NCLEX-RN success. Even though many of these strategies are creative and supportive, they do not address the deeper issues of power, privilege, and racism. If nursing continues to change (or rearrange) its outward behavior without examining the unconscious biases that remain stable, then deep, significant change is not possible. Conversely, when bias and racism are described and named, then nurse educators can be empowered to speak frankly about their attitudes, beliefs, and the power structures that help maintain them in a predominantly White academy.

Following Barbee's (1993) discussion of racism in nursing, nurse educators have discussed the theory of racism, power, and white privilege in nursing (Abrums & Leppa, 2001; Allen, 2006; Byrne, 2001; Campesino, 2008; Hassouneh, 2006; Tashiro, 2005). Other nurse researchers have used qualitative methods to examine racism in the context of nursing practice and health outcomes (Eliason, 1999; Giddings, 2005; Kendall & Hatton, 2002). Educators in other disciplines, especially education (Beagan, 2003; Gordon, 2005; Haviland, 2008; Kivel, 2002), have examined the impact of racism and bias on the academic success of students, again from a qualitative point of view.

Coleman (2008) discusses the experiences of African American nursing students attending predominantly White nursing programs and clearly communicates the challenges facing them. She cites students' feelings of alienation and insignificance along with discussing how students cope with non-supportive environmental conditions, attitudes, and behaviors. She goes on to provide a list of recommendations on how white institutions and nursing programs can create "accepting, welcoming, and supportive environments" for African American students (Coleman, p. 11). While Coleman clearly

outlines the historical and present day role of race in students' experiences, the biases of White faculty are only alluded to in this study.

The purpose of this study is to identify, name, and quantify the existence of faculty bias. As a result, the focus shifts from the experience of the student of color to the racialized views of faculty. This is a major departure from previous qualitative studies. This researcher asserts that faculty bias and related behaviors, emanating from and supporting societal and institutional structures, create an unwelcome and tense atmosphere for students of color. As such, they become contributing factors to lower minority student success.

Another professionally significant aspect of this study is the use of the Implicit Association Test (IAT) as a research tool. Although there have been studies using the IAT in a variety of disciplines (primarily psychology; Devos & Ma, 2008; Gong, 2008; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005), few studies have used the tool in medicine (Green et al., 2007) and no known studies have used the IAT in nursing education. As discussed above, a "color-blind perspective" that precludes most White nurses from having open discussions of race (Barbee, 1993; Eliason, 1999) makes it difficult for faculty to report biased or racist feelings and beliefs. Using the IAT to measure implicit attitudes helps researchers avoid the problems of self-report, namely the need for participants to conform to agreed upon egalitarian beliefs (von Hippel, Brener, & von Hippel, 2008). Further discussion regarding how the IAT accomplishes this along with explication of the psychometrics and administration of the IAT is contained in the literature review.

Conclusion

Tashiro (2005) called for nurses "to take a hard look at [their] own assumptions" to determine whether they were evidence-based or "merely a reflection of prevalent stereotypes" (p. 209). Given the difficulty of identifying the nature of one's beliefs, the IAT offers the promise of documenting racial bias that is unconscious to the individual. The implications are significant for attaining this level of self-knowledge, then acting upon it to create a more open, welcoming, and culturally appropriate learning environment for students of color. As the population of the United States becomes more diverse and health disparities worsen or remain unchanged, nursing has the opportunity to squarely face the legacy of racism. It is within that context that further examination of the existing research is presented along with an exploration of innovative research methodologies.

CHAPTER II

REVIEW OF LITERATURE

This chapter summarizes and synthesizes several theories informing and supporting the study of racism. Particular emphasis is placed on critical race theory--a theory that best supports this study of implicit bias in nursing faculty. A review of the empirical literature follows with discussions of racism research from several disciplines. This chapter also includes examples of how the Implicit Association Test (IAT) has been used to measure implicit bias in a variety of settings. Data outlining the difference between implicit and explicit measures of bias are also included.

Theoretical Framework

Implicit vs. Explicit Bias

The concepts of implicit and explicit bias examined within the theoretical framework of critical race theory provide the basis for this study. These terms and concepts should be clearly defined before discussing the theoretical and empirical literature.

The idea that human behavior is influenced by unconscious (implicit) thoughts and beliefs has long been central to psychological theory (Nosek, Greenwald, & Banaji, 2007a). Although popular thought supports the idea that people have control over their beliefs and behaviors, empirical studies increasingly show that they do not (Nosek et al.). Implicit attitudes and behavior are automatically activated without conscious awareness of underlying motivation on the part of the individual. Tools like the Implicit Attitude Test (IAT) are designed to measure individuals' automatic evaluations by circumventing

the conscious thought process. The specifics of IAT technology are described below. It is often considered to be as important a discovery as the telescope or the microscope in its ability to make the invisible visible (Payne, Burkley, & Stokes, 2008).

On the other hand, measuring explicit thoughts and attitudes depends on the respondent's ability to self-report, usually in the form of an interview or questionnaire (Payne et al., 2008). In responding to written or oral measures of explicit attitude, the respondent must interpret the question, evaluate their response, and codify it on a scale. These two forms of measuring attitudes (implicit and explicit) result in divergent data. The differences are especially striking when racial bias is the attitude being measured (Payne et al.). The question asked by psychologists is why implicit and explicit attitudes vary. According to Payne et al., there are two predominant theories as to how these differences occur in people. The first is that people hold several different attitudes at the same time. This holding of disparate beliefs and points of view occurs as people's attitudes change and new ideas are layered over previous beliefs and attitudes. The authors propose that when people respond to questions, they access the most current attitude. Previous attitudes still exist at a deeper level and are more difficult for the individual to explicitly access. These deeper attitudes can be accessed via the use of implicit measurement tools.

The second theory is that explicit and implicit measures are not measuring separate attitudes. Rather, explicit and implicit measures simply allow the individual to edit their responses to different degrees. Therefore, the implicit attitude test is simply measuring an attitude before it has gone through the editing process (Fazio, Jackson, Dunton, & Williams, 1995; Payne et al., 2008). Whichever the case may be, it is

important to recognize the distinctions between implicit and explicit bias and how they uniquely manifest themselves in individuals and society.

Critical Race Theory

Critical race theory (CRT) provides support for the study of implicit bias within a post-structuralist framework. CRT and post-structuralism move the conversation about the existence of implicit bias beyond one of individual beliefs and attitudes to one of power structures within the larger society.

Post-structuralism is predicated on the belief that human beings are products of the entirety of their experiences including all social interactions and natural processes that occur in their lives (Crotty, 2003). At the same time, these social interactions and natural processes create and inform all other social and natural processes. Individuals are formed by the politics, economic conditions, culture, technology, climate, popular consciousness, and the laws and political relationships that surround them. Individuals are also determined by their existence in a particular place and time. At the same time, individuals influence and change these social and natural processes. In a post-structuralist view of the world, there is no separation between the individual and their environment (Sandoval, 2000).

Critical race theory takes a post-structuralist view on one social issue--racism. It asserts that racism is a socially constructed process that creates and sustains differential opportunities for racialized groups. It is not an individual process, however, but one that is pervasive and systemic (Vaught & Castagno, 2008). As such, racism permeates both interpersonal relationships and social, political, and economic institutions. Racism can also adapt to changes in society, but it never disappears. As a consequence, studies

conducted within a critical race framework must address the systemic nature of racism and question the notion of a color-blind society (Vaught & Castagno). The studies reviewed below demonstrate and explain further this seamless connection between individual implicit bias and the institutionalized racism that exists in this society.

Theoretical Rationale for the Study of Racism in Nursing

As discussed above, racism is a socially constructed process whereby "institutional and individual practices create or reinforce oppressive systems of race relations" (Krieger, 2003, p. 195). These systems are "reinforced by ideology" (p. 195). Given this definition, it is important to begin an inquiry into faculty implicit bias by exploring the theoretical tenets supporting the existence and study of racism in general and racism within nursing in particular.

Barbee (1993) discusses the history of Blacks in nursing and presents evidence of the social construction of racism in the nursing profession. She asserts that there has always existed an "institutional bias" against Blacks (p. 346). In many instances, Black nurses believe they can overcome these biases by working efficiently and professionally with a focus on the common commitments of nursing--treating all patients in an equitable manner. However, Barbee suggests that race and class issues have been powerful barriers to full acceptance of Black nurses into the profession as evidenced by the low numbers of both minority nursing students and minority registered nurses.

As mentioned in Chapter I, nursing places a strong emphasis on empathy and caring at the individual level (Barbee, 1993). Along with this emphasis on empathy is a belief that all patients should be treated equally, supporting the belief that nurses are providing egalitarian, non-discriminatory care. Multiple nursing theories support these

tenets including Leininger, Watson, Roy, and Orem (Parker, 2001). The problem arising from these individual-focused theories is that they preclude the nurse from identifying the larger structural and institutional pressures influencing nursing. In the case of this study, those larger issues include institutional racism and the implicit bias that supports it.

This belief in egalitarian values along with a denial of any negative feelings toward people of color is embedded in the history of modern nursing (Barbee, 1993). In the early days of nursing education, diploma programs based in hospitals essentially controlled the intellectual, affective, and moral development of White female students. Nursing was viewed as a socially acceptable profession for middle class White women. Most Black students, on the other hand, saw nursing as a way to move upward out of poverty. Because Black women were legally excluded from nursing schools in the South and were limited by quotas in the North, Black and White nursing programs developed along similar but separate avenues. These class and racial differences were never resolved within the profession because (a) White nursing leaders were attempting to distance themselves from the working class servant image and emerging labor movements and (b) nurses (both Black and White) were being educated to believe that they were providing non-biased, non-discriminatory care.

Barbee's (1993) assertion that racism is a taboo subject in nursing that continues to cause deleterious effects for minority and majority nurses points to the need for research and study within a critical theory framework. Nursing must see itself as part of the greater social environment. As such, nursing needs to be willing to move beyond an individual patient/nurse focus and begin an examination of how nursing mirrors societal power structures.

Building on Barbee's (1993) classic work, several authors describe how issues of racism, power, privilege, and position impact theoretical and practical aspects of nursing education. Abrums and Leppa (2001) describe the reluctance of nursing education to address issues of race, class, gender, and sexual orientation. The authors use Friedman's theory of relational positionality as the framework for a course entitled "Nursing Care and Cultural Variation" (p. 272). This particular educational challenge describes how to move beyond teaching about cultural beliefs, values, and customs (the usual topics of classes in cultural competence) to more fully exploring race, class, gender, and sexual orientation. Within this theoretical framework, students learn there are complex world-wide and local influences that blur the lines between victim and victimizer. According to the authors, examining these complexities helps avoid the polarization that occurs when discussions are limited to race and ethnicity. Stressing the context of another's life, along with the multiple roles and positions the individual occupies in life, allows for finding common ground or commonalities in experience.

Confronting racism, sexism, classism, and heterosexism from a relational positionality framework requires an acknowledgment that each person (student, educator, and client) brings information and knowledge to the relationship that is valid (Abrums & Leppa, 2001). This knowledge is, however, "partial and situated" (p. 272); as such, it needs to be appreciated within a historical perspective and from all points of view. Individuals process knowledge and make judgments about the world through unique "lenses and filters" (p. 273). Lenses are defined as the personal experience, education, and historical background a person brings to a given situation. A filter is through which another's point of view must pass as it is interpreted and categorized by an individual.

Abrums and Leppa are attempting to help students see the functioning of their lenses and filters more clearly in hopes of illuminating ethnocentric stances. In other words, instructors are journeying with students as they become more aware of their position within the dominant culture, especially as they relate individually and institutionally to racism, sexism, classism, and homophobia. Abrums and Leppa are bold in their critique of the shortcomings of traditional methods of teaching cultural competence in nursing education. Their inclusion of Barbee's (1993) experience and analysis of racism in nursing is further evidence of a willingness to begin addressing the unexamined issue of racism with its associated issues of power and privilege.

Campesino (2008) acknowledges the arguments of Abrums and Leppa (2001) and others who have critiqued the focus of cultural content in nursing education. She identifies "a schism in the discipline regarding foundational theoretical perspectives" of cultural competence, both in education and practice (p. 298). Campesino acknowledges the groundbreaking work of Leininger and other transcultural nurse theorists in highlighting the contributions of transcultural nurse scholars. Transcultural nursing research has provided a large body of knowledge regarding beliefs and practices of various cultural groups. However, critiques have arisen because within transcultural nursing theory, issues of power, privilege, and hierarchical social status are not considered fundamental elements of the nurse/client relationship.

The philosophy of humanism also dominates nursing and transcultural nursing. Within this philosophy, equitable health care delivered in a caring manner is seen as the key to effective health outcomes. The humanist perspective is based on equality and individual freedom. The problem, as Campesino (2008) sees it, is that differences

between the nurse and racialized patient are viewed as functions of being members of different cultural groups that have different norms and values. This point of view minimizes, or ignores completely, the fact that these differences are manifestations of power imbalances intrinsic in the socially constructed categories of race, ethnicity, and class (Campesino).

Campesino (2008) goes on to discuss the need to scrutinize transcultural education from a critical perspective. The goal of critical theory is to emancipate dominant culture and racialized groups by acknowledging that race is a socially constructed entity that constrains all people (Trevino, Harris, & Wallace, 2008). In the process of emancipation, both minority and majority people are freed from existent societal restraints (Friere, 1972). In relationship to nursing, this theory supports an honest examination of the power structures operating within nursing practice, education, and research. It is particularly useful in uncovering and dealing with issues of bias and racism in nursing education. In doing so, educators have the opportunity to understand how their own social privilege creates power imbalances in the teacher/student relationship.

In articulating the implications of racism in nursing education within a critical framework, Allen (2006) explores the nature of difference within the mostly White nursing profession. Using post-structural theory and a Foucault framework, he describes the limitations of our current view of multiculturalism. Providing a context for Abrums and Leppa's (2001) discussion of nursing's incomplete view of cultural competence and Campesino's (2008) similar discussion of the need to move beyond transculturalism, Allen outlines four main themes that highlight the implications of Whiteness and difference in nursing.

1. Describing is a political process that creates difference. The world is historically and presently described from a White (Western) point of view and, as such, has marginalized those who have not been empowered to speak for themselves (Allen) or have been denied access to their own history (Jones, 2000). At the same time, the describer gains and maintains power through the "purposeful social action" of classifying another (Allen, p. 66).

2. Using the term "White" or "not white" requires an appreciation of a host of historical events (Allen, p. 66). Most often in nursing, the term multicultural is used when speaking of non-White individuals. It is also used when the goal is inclusion of "other" people into the White mainstream. This inclusionary process rarely includes a conversation about the meaning and significance of Whiteness**.** While people of color have needed to understand White people in order to survive, the reverse is not true; hence issues of White privilege continue to be unconscious. Seldom is there discussion of how to make mainstream nursing education less White as a way of accommodating an increasingly diverse student population (Allen).

3. Cultural groups cannot be understood outside of their historical context. A person's place in location and time influences how they are viewed and how they view themselves. As an example, Campesino (2008) discusses Mexican people living in Mexico where they are not considered an ethnic group. However, when they move to the United States, they are considered different because their cultural beliefs and practices differ from mainstream White America. Allen (2006) goes further by citing the role of historical struggles and violence in the formation of cultural identity. Colonialism,

invasion, genocide, and economic exploitation are tools of domination that shape cultural difference over time.

4. The fourth theme concerns the essence of nursing education as a system that views students as essentially empty vessels that need to be formed into professional nurses. Because this system is ethnically White and predominantly female (Abrums & Leppa, 2001; Allen, 2006; Barbee, 1993; Eliason, 1999; Giddings, 2005), cultural difference is ignored or considered inconsequential to the success of under-represented students. As educators teach the way they were taught, the system perpetuates itself--whiteness being the normative center and differential academic success being seen as the failure of the student of color (Allen).

Connections between Racism and Unconsciousness

The authors above have articulated related views of the structures and systems within nursing education and how those structures evolve from greater cultural and societal influences. They also assert that this way of being in nursing education creates an environment that makes it difficult for under-represented students to feel included or empowered in the learning process. If this is true, then what are the barriers that prevent nursing education from making the internal and external changes needed to create more inclusive, culturally sensitive, and power-balanced learning environments?

While Barbee (1993) has proposed some answers to the question outlined above, Sullivan (2006) discusses racism in the context of unconsciousness. This is essential to understanding the significance of using the Implicit Attitude Test in a study of bias in nursing faculty. Sullivan begins by acknowledging that we live in a racialized and racist world. As a result, all humans will be racist, albeit in different ways depending on their

particular environment and personal history. Racism then becomes not an individual process but one that perpetuates itself through and within political, economic, global, educational, and all institutions.

Sullivan (2006) uses the writings of W. E. B. Dubois and John Dewey along with Freudian theory to shepherd the reader through an examination of the role of unconscious habits in the perpetuation of racism. She begins by debunking the idea that racism can be alleviated by giving White people more information about people of color. Her explanation of this process sounds very much like the rationale nursing has used in its support of cross-cultural curriculum content. The theory is that given enough information about "other" groups of people, White people will see the errors of their racist assumptions and racism will end. This point of view allows racism to be something unintended by Whites and downplays, or ignores, the severe consequences of continued White domination in the world.

Referencing Dubois, Sullivan (2006) specifically looks at the root of ignorance—ignore—and asserts that the persistence of racism is not a matter of intellectual ignorance but rather a "constructed, maintained, and protected" process (p. 20). This process is not necessarily a conscious one; this is where Sullivan posits the concept of unconscious habits.

Habit is the way human beings interact with all aspects of their world. Habits in this context are not defined as routines or bad habits; they are the way that humans subconsciously deal with the social, political, and physical world. Many of these habits are non-conscious, i.e., they are relatively stable and difficult to change (Sullivan, 2006). This does not mean, however, that they are impossible to change. Obviously, in order for

a person to have agency over these habits, the habits themselves need to be made conscious. The question arises in the context of nursing education as to how these non-conscious habits manifest themselves in the teaching and learning environment.

Unconscious Habits in the Educational Environment

Sullivan (2006) continues her discussion of the effects of unconscious habits in education by stating that we need to examine racism in the classroom. She acknowledges that discussions of race are uncomfortable, especially for Whites who believe that racial issues do not exist until someone starts the conversation. She asserts that avoiding this hard subject allows racial habits to go unexamined, perpetuating serious consequences for the student of color and society (Sullivan).

Several ways in which White privilege is maintained in the classroom are discussed by Sullivan (2006). She points out communication differences between Black and White students. The concept of raising hands and waiting for a turn to speak is a very White, middle-class way of controlling the classroom. Power is held by the instructor through whom all inter-student communication is funneled. White students tend to believe that arguments should be made in a calm, intellectual manner. Any displays of personal passion or emotion discredit the argument. The Black community operates on the premise that individuals can moderate their own conversations; speakers should be careful to speak only when a point needs to be made. At the same time, silence, especially during heated conversations, is seen as rude. The pursuit of the truth is seen as everyone's responsibility.

Although Sullivan (2006) acknowledges the dangers of categorizing patterns of communication, she believes not discussing them in our racialized educational

environment leads to greater problems for students. Haviland (2008) makes the same point in her study of Whiteness in education. While the details of her study are explained below, it is important to include discussion here of how White educators suppress discussion of race and racism in very predictable and effective ways. These suppression strategies are most often unconscious habits of speech that only become visible when exposed by the researcher in the process of analysis. Even more interesting is that these habits of speech are intended to help the educator appear less biased. Instead of supporting teachers in challenging the racial status quo, these habits actually exacerbate the racial divide in the classroom (Haviland).

Summary of Theoretical Literature

Nursing has a complex racial history that cannot be separated from the racial struggles of society at large. Under-represented populations have faced significant challenges when interacting with the White, middle class, female environment of nursing education. Within the transcultural nursing movement, well-intentioned efforts have been made to alleviate discrimination, both in practice and health care delivery. These efforts have also informed and supported the adoption of multicultural education practices. These strategies, however, have been insufficient because they have ignored history and power and have not addressed the underlying unconscious habits displayed by White educators that ignore, and thereby perpetuate, racism in nursing education.

Sullivan (2006) acknowledges the role of study and argument in dismantling racism but states that dismantling will not be successful without White people understanding the unconscious workings of White privilege. White people are powerless to fight racism without first recognizing their unconscious efforts to maintain the

privileges that result from its persistence. Sullivan asserts that critical race theory will have difficulty moving forward if we continue to rely on rational arguments to make a case for anti-racist activities. We must find ways to survey and measure the unconscious.

Review of Empirical Literature

Specific studies examining the existence of racism in various educational and professional settings are discussed in the following sections. It is essential to read these studies in the context of critical race theory as each of them takes place within larger institutional and societal systems that influence both participants and researchers. The first section includes qualitative studies documenting students' experience of racism within a variety of educational settings and programs. The second section looks at other qualitative studies of students' and educators' experiences of racism but uses critical race theory as a theoretical framework. Finally, important studies measuring implicit bias in physicians and nurses conclude this review and lead to an in-depth discussion in the next chapter of the methodology used for this study.

Student Experience of Racism in Education

Studies of racism, prejudice, and bias as barriers to student success originate from a variety of theoretical frameworks and points of view. Although researchers may address issues of racism in different ways and may not even identify racism as the issue, they are all motivated by the same need--to successfully educate greater numbers of diverse students. In the case of nursing and medicine, diverse providers are needed to care for an increasingly diverse population.

In reviewing the following research, the case was made that traditional studies examining academic success of under-represented students consistently cast them as the

"other." As such, the student usually requires some intervention from the educator or university community to alleviate a particular problem that appears to be impeding success. The educator is characterized as one who needs more knowledge about cultural diversity or more training in appropriate pedagogy with the goal of changing the student "other." While acknowledging that these interventions have proven to be appreciated by under-represented students, there are deeper issues at work. In considering these deeper issues, several researchers have taken a more critical view of student achievement by examining the power and privilege mechanisms existent in education.

Amaro, Abiram-Yago, and Yoder (2006) and Wong, Seago, Keane, and Grumbach (2008) have conducted studies from a more traditional, ethnic diversity point of view. Amaro et al. performed a grounded theory study with a large participant group (26 faculty and 17 ethnically diverse nurses) to determine what barriers the students perceived as affecting their success in nursing education. Participants were also asked about coping strategies, supports, and barriers that affected the implementation of those strategies. The purpose of the study was to determine ways to more effectively recruit and retain ethnically diverse students. The conceptual model used asserted that educators exhibited five patterns of responding to ethnically diverse students. They ranged from no consideration of the student's ethnicity to encouraging students to maintain their cultural identity. In this fifth pattern, the educator adopted teaching strategies that accommodated the student's particular learning style.

Results of the study showed student barriers or needs in four areas: personal, academic, language, and cultural. Personal needs included financial challenges, family responsibilities, and lack of time. Academic challenges included work/study load and the

need for tutoring and study groups. In the area of language needs, ESL students talked about being discriminated against because of their accents. Cultural barriers were discussed by international students in relation to communication issues and cultural practices. They also discussed the lack of cultural role models in the educational setting (Amaro et al., 2006).

Interspersed in the study report were comments regarding students' experiences of prejudice, racism, and discrimination. Students talked about their encounters with discriminatory behavior from classmates, patients, staff in clinical areas, and instructors. In discussing this particular issue, the researchers underscored the importance of teacher attitude and knowledge of culture in creating supportive teacher/student relationships. They stressed the importance of a curriculum that teaches students how be culturally competent and sensitive (Amaro et al., 2006).

Wong et al. (2008) similarly questioned students of color regarding institutional factors (peers, faculty, diversity, overall campus experience), dispositional factors (confidence in ability), and situational factors (finances and work). Their question was whether ethnocultural background influenced students' perception of these factors. They used Lewin's theoretical framework which proposes that a person's behavior is a direct result of the person and their environment.

In this study, 1,377 African American, Latino, Asian, Filipino, and Southeast Asian nursing students completed a 24-item survey. Using regression modeling, relationships between descriptive data and institutional, dispositional, and situational scales were determined. Data showed that minority students had more negative perceptions of campus diversity than non-Latino, White students. In relation to attitudes

toward peers, African Americans had more negative perceptions of their peers as did students whose parents had not attended college. African Americans also had less contact with instructors than did White students. In dispositional issues, all students of color had financial challenges except Southeast Asian students. Students who had the most financial difficulty included ethnic minority males with children (Wong et al., 2008).

In discussing the results of this study, the researchers observed that African American students from all institutions studied interacted significantly less often with both faculty and peers. All ethnically diverse students, except for Asians, perceived there to be less diversity on campus. This included the presence of diverse faculty, diversity education, and ethnic sensitivity. The researchers commented that faculty commitment to the success of African American students was a key determinant in their success. Other studies have shown that perceptions of campus and faculty sensitivity to ethnic issues are other keys to successful academic achievement (Institute of Medicine, 2002; Wilson et al., 2006; Wong et al., 2008).

The results of these studies provide evidence of personal and institutional barriers perceived by students of color in the academic setting. They also raise important questions that are addressed in the following studies. Why do students of color have less contact with educators? Why do they feel invisible in the academic setting? What is happening within the structure of the institution that makes students of color feel less welcome on campus? What exactly is happening in the relationship between white faculty and students of color?

Coleman's work (2008) represents another group of studies where researchers are asking these questions. Researchers are looking at academic and professional

achievement within the larger historical and institutional framework of nursing. They see nursing functioning within a society that continues to wrestle with issues of racism and White privilege. It is within this context that Coleman documents the experiences of African American nursing students attending predominantly White two-year nursing programs. In addition to the barriers discussed in the studies above, which have been found in other studies (Evans, 2007; Giddings, 2005; Klisch, 2000; Wilson et al., 2006), Coleman specifically questions the role of race in students' experiences of nursing education. Citing the history of African Americans in nursing, she comments how African American enrollment in nursing school rose during the 1960s but has since decreased significantly (Coleman).

Although there tend to be increasingly positive attitudes toward students of color in predominantly White institutions (Pascarella & Terenzini, 2005), African American students still feel isolated, alienated, and have difficult interpersonal and culturally conflicted relationships on campus (Coleman, 2008). Compared to White students, African American students have significantly less positive feelings about institutional and faculty relationships. Coleman clearly articulates that racial differences often create barriers for African Americans in their ability to form and engage in meaningful relationships within a White institution. These barriers are often the result of negative attitudes of White persons. Race alone is not the only cause of negative experiences for students; when combined with financial challenges, constraints of family and work, being able to register for the right classes, and dealing with difference in general, it becomes a significant challenge (Coleman).

With this information as background, Coleman (2008) conducted face-to-face interviews with 14 African American, community college nursing students. Research questions for the study included determining the overall experience of students within a predominantly White institution and White nursing program. In addition, students were questioned as to whether those experiences influenced their academic connection to the institution. Finally, the role of race in those experiences was questioned. The findings were organized around four themes: difference, coping and survival, support systems, and "the institutional context of a predominantly White nursing program and institution" (Coleman, p. 10). Findings revealed important dynamics in the institution/faculty/student relationship. Within the theme of difference, all students remarked that their cultural and racial differences were key factors in their ability to engage socially and academically. They stated that their Blackness was a source of alienation, insignificance, and feeling that they were not only different but occupied a "place of difference" (p. 10). As an example one student responded,

> I felt like a leper, like I had some dreaded disease…..Whites really don't want your imperfections (color, hair, texture). I felt very isolated and intimidated. I really felt unequal, not just in numbers [few Black students] but I doubted whether I was really capable of the work. I was out of my cultural uplifting. (Coleman, p. 10).

Students claimed that the "environment" responded to them differently because they were Black (Coleman, p. 10). Coleman is straightforward in labeling this an experience of racism.

Under the theme of coping and survival, students described a lack of support and adversarial feeling on campus. They discussed their need to employ both overt and covert coping strategies. A student gave the following example:

> I had to give my all, not just in attendance, not just paying my tuition, not just in showing up to class on time, not just being a participant in the class…I had to excel 10 times more and be presentable [dress] more, even on my worst days, than Whites. Whites had the privilege of relaxing; I couldn't. I was looked at differently. (Coleman, 2008, p. 10)

The employment of coping strategies by Blacks is well documented in other studies as a way of equalizing power (Tatum, 1999).

Within the theme of supportive systems, students discussed their difficulties in building and maintaining strong peer and faculty support systems. In addition, they discussed their perceptions of White nursing faculty. One student stated:

> I don't think she [White faculty] even knew our names. She did not usually talk to me, and when she did, it was always negative comments. I think she looked more at what people looked like. I never saw her be nice to other African American students. (Coleman, 2008, p. 10)

Another student commented:

> It's like they put on a different face to speak to us. When they communicate to White students, it seems natural and they are at ease. It's almost as if they take a breath and prepare themselves before they talk to you because I'm different. (Coleman, p. 10)

Coleman (2008) reiterates statements by Wong et al. (2008) by referring to studies linking student success to faculty relationships. In light of these studies, comments by these particular nursing students become even more problematic. Students know the value of connecting with faculty and peers but are unable to do so. Whether those difficulties arise from racial differences, past experiences of racism, or cultural differences, the issue remains one of great concern for African American student success.

The final theme--institutional context--provides further evidence of the deeper issues contributing to African American student success. Building on comments from the previous themes, students felt they did not fit in or belong in the institution. Their

comments included, “It’s a White environment. We’re left out. No one helped me not students or teachers. It’s ruled by Whites; I don’t know how else to put it” and “There weren’t many of us; we were outnumbered, and I expected to find things unequal and unfair” (Coleman, 2008, p. 10).

In discussing the implication of this study, Coleman (2008) acknowledges the difficulty of researching the highly charged subject of race. As a result of the findings in this study, she makes several recommendations. She highlights the need for more faculty members of color who can provide mentoring and role modeling to students. She points to the need of White educators to become more sensitive and culturally knowledgeable. Colleges also must find ways of assisting African American students to be better connected with all aspects of the college environment.

A recommendation of particular importance to further study of faculty bias is Coleman’s (2008) counsel to African American students that they must be aware of how race impacts their educational and social experiences in a predominantly White institution. She encourages them to seek support from faculty and peers, specifically recommending that they find supportive networks of other African American students. These recommendations, coming from a Black nurse scholar, give a sense of the permanence of racism in education. She seems to be saying that White educators can endeavor to teach and model cultural sensitivity and create supportive structures at the program and institutional level; however, students of color will still need to develop effective coping strategies to combat the effects of racism (which she labels “race”) if they are to be successful.

Coleman's (2008) choice of the word "race" as a proxy for racism is significant. As Allen (2006) and Sullivan (2006) discussed above, this use of language continues to make students of color responsible for their own success or failure, while allowing White educators and college administrators to remain unconscious to the ways they perpetuate a system of White privilege. Privilege allows White educators to view racism as a problem outside of themselves, either residing within the student of color or requiring a pedagogical intervention such as increased cultural knowledge or the use of multicultural teaching strategies. The concepts and mechanisms underlying White privilege are more clearly described in the following reviews. To uncover and define White privilege, it is important to look at studies that have uncovered the specific processes through which under-represented or racialized students experience the alienation described in Coleman's study.

The Use of Language to Maintain White Privilege

Before beginning this examination of how language perpetuates a racialized climate in nursing, it is important to discuss the existence, or lack, of nursing research of this type. After an extensive search of the literature, no studies examining the use of language from a critical theory perspective with regard to racism were found. The structure and philosophy of nursing, as described above, may be responsible for the reluctance of nurse scholars to enter this highly charged and emotional area of study. As a result, the studies summarized in this review come from the fields of education, psychology, sociology, and medicine. This researcher believes the findings are extremely relevant to nursing education and the practice of nursing in general. They also point to the need for further study into the existence of unconscious bias in faculty.

Beagan (2003) was motivated by the higher attrition rates for racialized minority medical students in Canada to study the daily communication patterns that supported students feeling marginalized in their work settings and from their majority classmates. She termed this process "everyday racism" (p. 852). Everyday racism is defined as "practices that infiltrate everyday life and become part of what is seen as 'normal' by the dominant group" (Beagan, p. 853). This definition bears strong resemblance to Sullivan's (2006) definition of unconscious habits. Beagan set out to investigate how race and culture are experienced by medical students. Acknowledging that individuals and institutions voice commitments to equality, how do daily interactions cause inequalities to persist? Surveys containing open-ended and closed questions were administered to two groups of third year medical students. About one-third of each group was also interviewed by the researcher.

The findings revealed themes that appear in subsequent studies in this review and are explored in more detail. The first was that White students had difficulty describing how their Whiteness impacted their experience in medical school (also Bonilla-Silva, 2006). Many of them stated emphatically that racism was not a problem in medical school. They justified this point of view by highlighting the diversity of the student body along with their youth and level of education (Beagan, 2003). White students had difficulty seeing their own advantage given the common cultural views of what a doctor "looks" like. A few realized that they were what patients and staff expected to see. A comment by an Asian student highlights the experience of being non-White.

> I think it's tougher to gain respect from people than if I was a 30-year-old White male walking into the room, and they see you, and they think you're a doctor. Whereas if you walk in the room, and you look like you're 18, you're Chinese, you're a girl, they automatically assume you're a nurse or a volunteer, a candy

> striper. It's been assumed so many times. So, just in that respect I feel like there's a hurdle. (Beagan, p. 855)

Because this is not the kind of behavior that Whites consider racism, it is often seen by Whites as causing no harm. It is a significant barrier, however, for racialized persons (Beagan).

A second theme described the marginalization of "others" in the class. Chinese students talked about sticking together and not socializing with other students. A White student commented, "It is shameful to say there are people in my medical school class that I don't know their names. Mostly those are the people who are Chinese" (Beagan, 2003, p. 856). This phenomenon of racial separation, as seen by White students as something *natural*--not a symptom of racism, is further explored by Bonilla-Silva (2006) and Tatum (1999).

The next theme uncovered overt racist incidents as being a particularly effective way of intimidating and exerting power over marginalized people. Half of the students had heard offensive racist jokes. These incidents were even more concerning because jokes were often told by clinical preceptors and patients. Preceptors and instructors wield power over the student with grades and evaluations, which makes it difficult for students to respond. Students are trying to build rapport with patients, making it equally difficult to respond to racist jokes from them. One student characterized her dilemma in this way, "Sort of weighing my options, like is this worth getting into a big fuss over because is it going to get me anywhere and is it going to change this person" (Beagan, 2003, p. 857)?

These themes and examples point to important, everyday incidents that influence whether students feel like they fit in and belong. Consistent with other studies (Coleman, 2008; Eliason, 1999; Giddings, 2005), 24% of students who identified as part of a

minority group stated that their racialized status had a negative effect on their school experience. In contrast and consistent with other studies (Bonilla-Silva, 2006; Brown et al., 2005; Gaertner et al., 1997), 85% of White students described the impact of their race as neutral.

This study has important implications for nursing education. Nurse educators hold positions of power which make it difficult for students to realistically speak up about micro-aggressions taking place within a nursing program. Although no one incident may appear significant and the racialized student may be willing to let it go, the accumulated effect causes significant stress for the student (Beagan, 2003). As such, the educator's commitment to antiracism can help change the environment for all students. The educator needs to reflect on his/her own racism as it is manifested in daily routines and ways of communication.

Racism and Discourse

The next studies build on Beagan's (2003) discussion of everyday racism and analyze the language used by White educators to silence discussions of race in educational settings. While marginalized people understand how these strategies affect their experience in the classroom (Bonilla-Silva, 2006**),** racialized language patterns are mostly invisible to White people (Gordon, 2005; Haviland, 2008). As such, these speech patterns become part of the fabric of unconscious habits that keep the power structures of racism in place.

Haviland's (2008) year-long, qualitative study focused on ways that White teachers deal with issues of race, racism, and White privilege and power. She agrees with Banks' (1997) belief that all children, regardless of race, ethnicity, gender, or social class

should have an equal opportunity to learn. The premise of multicultural education is easily reduced to teaching strategy, however, and Haviland proposes "transformative or social action" approaches to education (p. 41). These approaches include tenets of multicultural education while acknowledging that the mainstream, White point of view is but one perspective. In the process of transformative education, students are also empowered to participate in social action and change (the core values of critical theory).

Before reviewing the results of Haviland's (2008) study, it is necessary to outline definitions and worldviews of Whiteness. This process of defining Whiteness is essential to her study but one not often undertaken by scholars (Gaertner et al., 1997; Hurtado & Stewart, 1997). Haviland has chosen three qualities of Whiteness on which she builds her study.

1. Whiteness is power-evasive. Whiteness is shaped by power, although that power is consciously or unconsciously ignored or denied by Whites (Haviland).

2. Whiteness uses several techniques to maintain its power, several of which have been discussed above (Allen, 2006; Bonilla-Silva, 2006; Sullivan, 2006). These include asserting that the United States is a "meritocracy" (p. 42), and holding fast to a belief in colorblindness. Other techniques, some of which align with Barbee's (1993) assessment of the existence of racism in nursing, include creating a culture of niceness, avoiding criticism, and not be willing to examine one's own responsibility for racial power structures.

3. Whiteness is not monolithic. Researchers must avoid making stereotypical assessments of Whiteness. Research has shown that the more isolated Whites are from diverse populations, the greater the tendency to view themselves as the norm. They also

adhere to colorblind beliefs. Alternatively, when Whites are in multiracial environments, these beliefs are challenged; Whites are required to examine their unique racial and cultural identity (Haviland, 2008).

Gee (1999) states that worldviews are created and enacted through our ways of talking, believing, thinking, and interacting. He calls these discourses. It follows that our cultural models and ways of viewing the world will be created and maintained through our discourse. Using this framework, Haviland (2008) uncovered the ways White teachers and students in predominantly White educational settings speak, believe, think, and interact when dealing with issues of race, racism, and White privilege. Data (field notes, audio and videotapes) were gathered from an eighth-grade language arts classroom and a university seminar for student teachers. There were eight weeks of field notes, tapes of eighth graders, and 20 ninety-minute interviews with student teachers.

The discourses Haviland (2008) observed were coded into the three characteristics of Whiteness outlined above. While all of the results are applicable to nursing education, some findings hold particular relevance to how White nurses respond to discussions of race and how they avoid owning power. Within the category of Whiteness as power-evasive, she observed that educators and students tried hard, sometimes going to great lengths, to avoid using certain words that they perceived would paint them as racist. In addition, when someone was attempting to say something that may have sounded racist or prejudice, speech was not fluid and contained lots of editing. For example, Haviland stated, "But I think when we say, like—I think I've heard us—I *wonder* if I've heard us say, 'Well, I've got all White students, so we don't have all these race issues necessarily to deal with'" (p. 45). Students were asserting that because they were in an all-White

classroom, racism did not exist. Haviland attempted to challenge that statement; however, in the process, she softened her intent in the first sentence and avoided a confrontation. She evaded owning her power as a White person by not challenging the beliefs of the group.

Other examples of evading power include claiming ignorance or uncertainty. Using words like "I don't know" are common ways participants avoid the consequences of their own opinions. Group members also let others "off the hook" for statements made that could be interpreted as racist (Haviland, 2008). Finally, citing authoritative sources places the source of one's opinions elsewhere, thus absolving the individual of any responsibility for thinking or feeling a certain way. The use of silence is also a strategy for avoiding confrontation and maintaining the status quo--in this case, White privilege (Haviland).

In the report of techniques Whiteness uses to maintain power, Haviland's (2008) examples are consistent with a study by Gordon (2005). Gordon reflects on her evaluation of schools in North Carolina and analyzes how she colluded with White privilege in her interactions with school staff. Strategies employed in both of these situations included affirming sameness, joking, agreeing, supporting, praising, caring, socializing, and "focusing on barriers to multicultural education" (Haviland, p. 47). While these qualities are aspired to by most teachers, including nurse educators, Haviland and Gordon asserted that their existence and maintenance in the classroom essentially eliminated the opportunity of engaging in transformative, multicultural education aimed at supporting social action. Without the possibility of disagreement and struggle, the status quo (White dominance) is maintained.

Taking the findings of Haviland (2008) and Gordon (2005) one step further, Vaught and Castagno (2008) looked at how educational institutions, and individual schools in particular, are racialized. Their research explicated teachers' views toward White privilege and Whiteness through a critical race theory perspective. While their analyses of individual discourses were identical to Haviland and Gordon, they asserted that individual attitudes and behaviors are indicative of a larger structure of racism within education. This ethnographic study included interviews with White teachers and teachers of color who had participated in anti-bias/anti-racism in-service trainings. The researchers explored three questions: (a) what messages had teachers gleaned from the trainings relating to the nature of racism and race, (b) what structures do these messages reflect and, (c) how does the concept of Whiteness as property inform the relationship between the teachers and the institutional and educational structure (Vaught & Castagno).

Analysis of this study was based on Harris' (1993) concept of Whiteness as property. The concept of Whiteness as property is predicated on the expectation that power and control are held by Whites. Power and control are not only the status quo but exist as a "neutral baseline" or norm that obscures the process of continued White dominance and privilege (p. 1715). As a result, Whites have claimed an ownership over rights and privileges that have come to be associated with "the property of being White" (p. 1721). As discussed in Chapter I, these privileges have been reinforced by legal and structural practices through the years.

Harris (1993) continues by explaining that the concept of Whiteness as property has significant implications when defining people of color as members of a cultural group. Given that Whites are not considered as members of a cultural group, it allows

them to be seen as individuals who have the "propertied right of individualism" (Vaught & Castagno, 2008, p. 104). People of color, on the other hand, being viewed as members of a cultural group, have no rights to individuality and as such are viewed as an aggregate belonging to one fairly undifferentiated whole.

The results of this study, viewed within the concept of Whiteness as property, exposed the difficulty of raising awareness of racism in education. Because White teachers are viewed as individuals and racialized students are seen as a unified whole, student failure is identified as the responsibility of the overly individualized teacher. This creates defensiveness on the part of White teachers as they are blamed for academic disparities. Vaught and Castagno (2008) saw this as creating a "backlash that entrenched pre-existing racism" (p. 104).

Society values property as the preeminent expression of freedom. By viewing teachers solely as individuals, the larger structures and systems of racism cannot be appreciated. At the same time, promoting social change while viewing teachers as autonomous individuals forces teachers into a defensive position (Vaught & Castagno, 2008). These principles are clearly evident in the responses from participants who had attended anti-racism workshops. After participating in anti-racism workshops, there was no evidence of increased empathy toward students of color. In fact, researchers declared that teachers had found other more concrete ways of explaining the culture of racism. Because there were no institutional changes made within these school districts, the structural manifestations of racism were unacknowledged, unchallenged, and unchanged. The authors suggested that without transformation of the system, racism simply adapts to any new ideas presented. The new ideology still exists within the framework of White

dominance. They also suggested that when an institution is operating within the Whiteness as property framework, it cannot attend to inequalities that exist within it (Vaught & Castagno).

These studies highlight the intransigence of racism and White dominance within education. Attempts to confront racism directly cannot succeed within current educational structures. Studies attempting to elicit discussions of racism and bias with White educators, whose worldview is one of individualized power, will most often lead to denial and defensiveness. Other research methods must be used to circumvent these automatic reactions.

The Implicit Association Test

For the past decade, the Implicit Association Test (IAT) has been used to measure and describe the existence of implicit bias, especially as it correlates with explicit bias (Fazio et al., 1995; Greenwald & Banaji, 1995; Greenwald, McGhee, & Schwartz, 1998; Hofmann et al., 2005). Studies reviewed below show the value of bypassing the cognitive thought process and accessing patterns of thought that are unconscious to the individual.

Before discussing the literature, it is important to explain the foundations of the IAT. The IAT measures the association between two concepts and an attribute. Specifically, it measures the differential between the concept and the attribute (Greenwald et al., 1998). In the case of most studies of bias, the test documents participants' association between attributes (good/bad, cooperative/uncooperative, like/dislike) and specific groups of people differentiated by skin color, race, religion, sexuality, or weight, to name a few. The test is based on the premise that implicit attitudes surface as actions and judgments that are beyond the conscious control of the

individual. A significant property of the IAT, and one that is shown in the following studies, is its ability to reveal attitudes and associations that individuals may not be able or willing to access explicitly (Greenwald et al.).

When performing the IAT, the participant is presented with a "target-concept discrimination" (Greenwald et al., 1998, p. 1465), often the face of a person representing a particular social or cultural characteristic. The IAT measures the association between the target-concept and an attribute. Attributes are represented by words such as pleasant/unpleasant, good/bad, cooperative/uncooperative, etc. Participants are shown how concepts and attributes are matched together by instructing them to press left-and right-hand keys on the computer.

In the next step of the IAT, concepts (pictures) and attributes are alternated so that participants need to match the concept with the *correct* attribute. Some of these matches are going to be easy while others will take more time to discern. The measure of this difference quantifies the amount of implicit attitude difference between the target-concepts (Greenwald et al., 1998). Implicit prejudice is defined as an automatic association between a certain group of people and a negative attribute (Fazio et al., 1995). More specifics about statistical analysis of the IAT will be included in Chapter III.

The Implicit Association Test and Ethnocentrism

Cunningham, Nezlek, and Banaji (2004) report on two studies investigating (a) the relationships between implicit and explicit prejudices, right-wing ideology, and rigid thinking; and (b) the relationship between implicit and explicit ethnocentrism. To set the context for these studies, the authors quote Gordon Allport (as cited in Cunningham et al.), "But the basic fact is firmly established—prejudice is more than an incident in many

lives; it is often lockstitched into the very fabric of personality…To change it, the whole pattern of life would have to be altered" (p. 1332). This quote speaks to the stability of implicit attitudes, a concept confirmed in this study. The authors discuss the nature of prejudice, asserting that it is a normal part of life. Reiterating the thoughts of authors cited in previous sections, they discuss the inadequacy of conceptualizing prejudice as single acts of thinking or behaving. Hence, their research is based on the premise that prejudice exists both explicitly and implicitly within the unique personality of the individual (Cunningham et al.).

Three research questions were addressed in this study. The first was whether explicit prejudicial attitudes toward one ethnic group are generalized to all other ethnically different groups. At the same time, researchers wanted to know whether implicit prejudices are similarly transferable to all ethnically different groups. Second, they questioned the relationship between implicit and explicit ethnocentrism. And third, they attempted to determine whether there is a relationship between ethnocentrism and personality, specifically right-wing ideology and rigid thinking (Cunningham et al., 2004).

One hundred sixteen White American undergraduates participated in this quantitative study. Participants completed questionnaires measuring personality characteristics related to their need for structure, predictability, and order. They were also asked about right-wing authoritarianism, work ethic, political correctness, and their belief in a just world. They completed the modern racism scale as well as scales of attitudes toward homosexuals and the poor. Anti-Semitism and ethnocentrism were also measured. Participants completed five IATs measuring implicit associations for Black/White,

gay/straight, rich/poor, Christian/Jewish, and American/foreign (Cunningham et al., 2004).

Tests of covariance were conducted on all 10 measures of prejudice. The researchers were attempting to discover whether prejudice toward the five groups was indicative of ethnocentrism. They found that, indeed, both implicit and explicit prejudice is organized in an ethnocentric manner. They also found that participants who scored high in explicit ethnocentrism also scored high in implicit ethnocentrism. Moreover, they concluded that participants' implicit and explicit ethnocentrism applied to all marginalized groups, i.e., prejudice is part of a more general preference for one's own group (Cunningham et al., 2004). This research is meaningful when considering the plethora of research measuring implicit prejudice toward various marginalized groups. This is the first study showing that prejudice toward all of these groups can be connected in a way that provides evidence of implicit ethnocentrism (Cunningham et al.).

Having determined that both implicit and explicit ethnocentrism exist, the next step in this study examined the correlation between implicit and explicit ethnocentrism. IAT results showed high implicit preferences for *ingroups* over *outgroups* (Cunningham et al., 2004, p. 1343). Explicit measures, however, showed significantly less preferential difference. While many studies documented the correlation between implicit and explicit prejudice, this research suggested that the issue may be more complex. The authors, in their quest to determine whether certain personality traits are related to prejudice, suggested that those traits, rigid thinking in particular, are related to prejudice through ideology. It is through the development of a certain worldview that prejudice develops. Social structures that support equality, fairness, and other such egalitarian beliefs require

conscious, reflective thought. While these egalitarian beliefs may impact explicit ethnocentrism, there is no evidence in this study that they impact unconscious associations (Cunningham et al.). For this researcher, these conclusions seem to be evidence of larger societal and cultural forces (discourses) determining ideological formation. This concept would be consistent with the theoretical literature and could lead to further questions about the nature of implicit and explicit prejudice.

The Implicit Association Test as a Predictor of Behavior

Research using the Implicit Association Test (IAT) is plentiful in the field of psychology, but it also has great potential for use in the health sciences. This is especially true in the light of research implicating physicians in providing biased care to racialized persons (Sullivan, 2004). Currently, there is no published nursing research using the IAT. However, von Hippel et al. (2008) studied nurses in their psychology research.

von Hippel et al. (2008) surveyed 44 drug and alcohol nurses working in Sydney, Australia. This study is important because the IAT was used not only to describe the existence of implicit bias and prejudice but to predict behavior. Although, this predictive capability is being debated by researchers in the field (Greenwald & Krieger, 2006; Kang & Banaji, 2006), it is important in the context of this discussion.

Nurses in this study were asked to report several aspects of their work with injecting drug users: level of stress, job satisfaction, explicit prejudice toward injecting drug users, and intentions to leave drug and alcohol nursing. In outlining their theoretical framework, the authors cited two issues that led to their choice of drug and alcohol nurses for this study. The first was that injecting drug users (IDUs) can be very challenging. The unpredictability of the client's life can often be perceived as chaotic to the health care

provider. On the other hand, substance abuse is labeled a disease. As nurses are socialized and trained to give compassionate, non-judgmental care to all patients, any negative feelings a nurse may have for a client may not be explicitly shared (von Hippel et al., 2008). These unexpressed negative feelings or attitudes may lead to nurses leaving the field of drug and alcohol nursing.

The von Hippel et al. (2008) study was predicated on two assumptions: (a) IDU patients create job stress for nurses and (b) that level of stress will predict whether nurses stay in drug and alcohol nursing. As a result, researchers hypothesized that stress and intention to leave the job will be mediated by implicit prejudice toward injecting drug users. Researchers also hypothesized that this effect on job stability would be independent of the effect of explicit prejudice and stress.

Participants completed surveys using Likert-type scales to measure their experience of clients' challenging behaviors, stress level, and job satisfaction. Nurses were also asked about hours worked with IDUs and their intention to leave the job. The IAT measured implicit attitudes toward IDUs by matching attribute words such as wonderful/awful with names often used to label IDUs, e.g., heroin injector, speed injector. The format of this IAT was different from those measuring racial bias in that there was not a contrasting group for IDUs. Hence, nurses completed one IAT that matched IDU labels with positive words and one that matched labels with negative words (von Hippel et al., 2008).

After completing bivariate correlations between all variables and performing multiple regression analysis, results showed that stress and intention to leave one's job were significantly mediated by implicit prejudice toward IDUs, not by explicit prejudice

(von Hippel et al., 2008). Several different models of analysis were examined and none revealed explicit prejudice to be a significant predictor of nurses' intention to leave their jobs. In a final analysis, researchers controlled for explicit prejudice; results showed implicit prejudice to be a predictor of nurses' intention to leave their jobs (von Hippel et al.).

The implications of these results were significant in determining the meaning of implicit prejudice. Implicit prejudice mediated the connection between stress and intention to leave a job to a greater degree than explicit prejudice. This led to the conclusion that implicit attitudes were capable of predicting independent variance. In the words of the authors, "implicit attitudes can independently motivate important, life-changing behaviors" (von Hippel et al., 2008, p. 11). If this is true, then measuring implicit attitudes holds tremendous promise in predicting behaviors or at least intentions.

The predictive qualities of the IAT were also addressed in another study. Green et al. (2007) revealed compelling findings that support well-documented differential treatment and outcomes for racialized cardiac patients (Fincher et al., 2004; Kressin & Petersen, 2002; Petersen, Wright, Peterson, & Daley, 2002; Sullivan, 2004). Prompted by the hypothesis that implicit bias affects disparities to a greater degree than overt discrimination, this study uses the IAT for the first time to determine the effect of implicit bias on physicians' clinical decision making. In particular, this study measures the existence of implicit race bias in physicians and whether the level of bias is predictive of treatment (thrombolysis) for Black and White patients (Green et al.). Participants included 287 internal medicine and emergency room residents. Each participant began by reading a clinical case study of a patient with chest pain. Attached to each case study was

a randomized picture of either a Black or White person. Participants were asked to decide whether patients' symptoms were related to coronary artery disease. The next survey measured explicit bias by asking several questions determining preference for White or Black Americans. Finally, participants completed three IATs: the Race Preference IAT--matches faces of Black and White people to the words good and bad, the Race Cooperativeness IAT--measures connections between race and perceived cooperativeness, and the Race Medical Cooperativeness IAT--measures associations between race and following through with medical treatments (Green et al.).

Several variables were descriptively analyzed in this study: demographic differences between White and Black physicians, accurate diagnosis of coronary artery disease for White and Black patients, and decisions to treat both White and Black patients (Green et al., 2007). As in previous studies (von Hippel et al., 2008), linear regression was used to analyze treatment decision (dependent variable), implicit and explicit bias (independent variables), and patient race (the moderator). Demographic covariates (physician race, age, sex, socioeconomic status) were also factored.

In response to the written case study, results showed no significant difference in treatment decisions made for Black or White patients. On explicit measures of bias, participants showed equal preference for White and Black patients on all scales measured. On IAT measures, however, White physicians showed greater degrees of bias toward Blacks on all three scales (Green et al., 2007). Using multiple regression to analyze all variables, implicit bias was shown to significantly predict physicians' decisions to prescribe thrombolysis for patients (Green et al.). In other words, the higher

the anti-Black IAT score, the less likely the chance of the physician prescribing thrombolysis for a Black patient with diagnosed coronary artery disease.

In discussing the significance of this study, Green et al. (2007) made several observations that were consistent with the theoretical literature outlined above: racism is endemic in the United States and, as such, medicine cannot be isolated from its effects. Green et al. astutely commented that biases are supported by "neural and cognitive processes" that "reflect both evolutionary bases and socially acquired orientations" (p. 1236). These assertions are consistent with those made by Sullivan (2004), Bonilla-Silva (2006), Allen (2006), and Campesino (2008). Green et al. also spoke of how the unconscious quality of bias might negatively affect behavior even when one has the best intentions to do otherwise. Because this was the first study using the IAT to evaluate bias in health care providers, the authors recognized the need for more study.

In looking ahead to future studies, Green et al. (2007) were encouraged by comments made by participant physicians after they completed the study. Most of the participants voiced openness to the idea that they had unconscious bias that affected clinical decision making. The study showed that physicians who were already aware of the role of unconscious bias, but had high IAT bias scores, prescribed thrombolysis more often than did those physicians with low IAT bias scores and less awareness of unconscious bias (Green et al.). This finding is a positive sign that health care providers can compensate for implicit bias.

Summary

The history and structure of nursing are intimately intertwined with the social and political history of the United States. Nowhere is that more apparent than when looking at the existence of racism in nursing. As Barbee (1993) has outlined, nursing has particular structures and philosophies that help maintain the existence of racism. As today's nurse scholars question these long held beliefs and structures, critical race theory becomes a powerful framework within which to both explicate the effects of racism and look beyond cultural competence and transcultural precepts (Abrums & Leppa, 2001; Campesino, 2008).

In describing the underpinnings of racism within a critical race theory framework, one sees that individuals have inherent ways of talking, believing, thinking, and interacting (discourses; Gee, 1999) that are unconscious to them. In the case of Whites, this manifests itself in racial prejudices that go unexamined, thereby perpetuating racism that is unrecognized as such.

Given the insidiousness and invisibility of bias, it eludes explicit study. The Implicit Association Test (IAT) has demonstrated great promise in bringing unconscious bias to light. Although very few studies have used the IAT to study implicit bias in health care providers, results of those studies are compelling and call forth the need for further inquiry (Green et al., 2007). If implicit bias exists in health care providers, does it also exist in the educators who teach them? The preceding argument intuitively suggests an affirmative answer to that question; however, research with nursing faculty using the IAT is still needed to confirm that assumption.

CHAPTER III

METHODOLOGY

This chapter describes the methodology of this study. It begins with a brief conceptual overview of the study leading to research questions and underlying hypotheses. The research design is followed by identification of the research sample. Research methodologies, data collection, analysis, and disposition are discussed. In conclusion, benefits of this research to the participants and nursing at large are considered.

Conceptual Overview

Human behavior is influenced by both implicit and explicit thoughts and beliefs (Nosek et al., 2007a). Implicit attitudes and behavior are automatically activated without conscious awareness of underlying motivation on the part of the individual. The Implicit Association Test (IAT) is designed to measure individuals' automatic evaluations by circumventing the conscious thought process. Measuring explicit attitudes, on the other hand, depends on the respondent's ability to self-report, usually in the form of an interview or questionnaire (Payne et al., 2008).

These concepts hold unique importance when the attitude being measured is bias. Racism, and the bias that springs from it, is a socially constructed process that creates and sustains differential opportunities for racialized groups. Of particular concern in this study is how racism affects nursing faculty and students. It is within this framework that a study of implicit bias in nursing faculty takes place.

Problem Statement

In the United States, people of color are under-represented in both nursing education and nursing practice in spite of strategies aimed at recruitment and retention (American Association of Colleges of Nursing, 2008; Stewart, 2005; U.S. Census Bureau, 2000). Although the need to eliminate this disparity has been clearly described (Institute of Medicine, 2002; Sullivan, 2004), significant increases in the number of students and nurses of color have not been realized. Although the roots of this disparity are complex, racial bias and discrimination in nursing education are consistently reported by students of color and, as such, need to be the subject of continued research (Allen, 2006; Barbee, 1993; Beagan, 2003; Coleman, 2008).

Problems arise when attempting to elicit information regarding racial bias. Nurses are trained to deliver color-blind care to clients and, as such, provide answers to questions regarding bias that are consistent with how they are trained--they treat everyone equitably without bias or discrimination (Barbee, 1993; Eliason, 1999; Green et al., 2007). Recent studies have demonstrated the validity and reliability of using the Implicit Association Test (IAT) to measure bias towards people of color (Cunningham et al., 2004; Fincher et al., 2004; Green et al.; Hofmann et al., 2005). The IAT provides researchers with a tool that can measure bias, specifically the bias of nursing faculty toward students of color, by circumventing the conscious thought process.

The relationship between educator and student is a key element in student success. What happens if educators have biased tendencies or racist beliefs about students? What if those biases are not consciously known by the faculty member? These are important questions for nurse educators to ask as they work toward fostering

increased levels of program completion and NCLEX-RN pass rates for minority students and as they nurture a more diverse nursing profession to care for an increasingly diverse America.

Research Question and Hypotheses

The following research question guided this study:

> To what degree does implicit racial bias towards people of color exist in nursing faculty teaching in BSN programs in the United States?

In terms of the results of the Implicit Association Test (IAT), this question could also be worded alternatively: To what degree do nursing faculty teaching in BSN programs hold pro-White attitudes (Greenwald et al., 1998)?

Hence, the following underlying hypotheses were assumed:

H1 Unconscious implicit racial bias exists in nursing faculty.

H2 Implicit racial bias is associated with certain demographic criteria (e.g., age, years teaching nursing, geographic location, racial self-classification, gender, etc.).

H3 Differences exist between an individual's level of explicitly reported racial bias and level of implicit racial bias.

Research Design

This quantitative study was conducted within a descriptive, correlational research design. The goal of descriptive studies in education is to carefully describe and analyze educational phenomena--in this case, the existence of implicit racial bias in nurse educators. Gall, Gall, and Borg (2007) stated that descriptive studies are limited by the availability of effective measures. This reality causes researchers to develop measurement tools that can more accurately assess the phenomenon of interest. In this study, the IAT was used to provide a more accurate measurement of bias than that

obtained through explicit measures. Once the level of racial bias is clearly described, the results of the study can be used to develop hypotheses or theories for later research. Future studies could determine whether faculty bias affects rates of program completion and/or NCLEX-RN passage.

In this study, the IAT score was correlated with several demographic and environmental variables, i.e., age, gender, etc. Analysis of variance and regression were used to determine whether variables, either alone or in combination, affected the level of implicit bias. Since the IAT has not been used to measure bias in nursing faculty, there were no previous nursing studies on which to build. Therefore, the purpose of this study was to establish the level of existent implicit racial bias and its relationship to faculty demographics and environmental variables. The design of this study facilitated the analysis of several variables and measured the strength of relationships within the scope of one study (Gall et al., 2007).

Sample

Participants for this study were purposefully chosen from rosters of nursing faculty on university and college websites using the following methods. Five to six colleges and universities with baccalaureate nursing programs were chosen from the state Board of Nursing website of several states in each geographical region of the United States. Numbers of schools chosen from each region were balanced for size (small vs. large) and type (public vs. private). Aside from purposefully choosing faculty who taught in baccalaureate programs (part of the research question), enrollment size and geographic location of the university were the only variables that could be externally controlled in order to create an equal representation within the sample. Although the list of invited

participants was balanced with school characteristics and geographical location, there was no guarantee that the final sample would maintain the same demographic balance.

All participants received the same e-mail invitation to participate. In addition to information regarding the study, including informed consent, the invitation also included a snowball sampling technique. Initial participants were invited to forward the invitation to other faculty who met the research criteria. All participants were informed that they could discontinue their participation at any time during the demographic questionnaire or IAT. No identifying information was connected with the questionnaire or the IAT. All data remained anonymous and were confidentially held by Project Implicit (2008) and this researcher.

The study remained active and available to participants for nine weeks to ensure that at least 116 participants had responded (see power analysis below). Reminder messages were sent to all invited participants to prompt optimum response rates. A link to the study was also posted by a respondent on the Nurse Educator listserv. After the study was completed by 139 respondents, the link became inactive and the data were analyzed. After Project Implicit (2008) had completed computing IAT and explicit scores, an SPSS data sheet containing all raw data was sent to this researcher who kept the data in a locked secure location on an office computer.

Power Analysis

The power of a statistical test for the existence of implicit bias denoted the probability of creating a Type II error, in this case claiming that implicit bias did not exist in nursing faculty when in fact it did. In order to determine statistical power, the following parameters were determined: the significance level, the sample size,

directionality, and the effect size. It was important to establish statistical power prior to beginning the study so that time and money were not wasted, either by gathering more participants than necessary or by having too few participants to adequately establish effect.

In determining statistical power for this study, the significance level was set at .05 and the effect size was set at .5 (moderate effect size as outlined by Greenwald, Nosek, & Banaji, 2003) with a power level of .8. Two-tailed *t*-tests were conducted to assess the directionality of the IAT results. Positive IAT scores denoted stronger positive feelings toward light-skinned people while negative numbers denoted stronger feelings toward darker-skinned people. Power analysis was computed using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007), a computerized power analysis program for conducting statistical tests generally used in social and behavioral research. Results of the G*Power analysis determined that 116 participants were needed in order to optimize the accuracy of study results and reduce the chances of making a Type II error.

Olejnic's (1995, as cited in Gall et al., 2007) method of determining power allows for more specific test-by-test analysis. For independent samples *t*-tests (α =.05, effect size = .05, statistical power = .7), the required sample size is 100. For related samples *t*-tests with the same power parameters, $n = 32$. For analysis of variance looking at 3- and 4-group main effects, the sample size needed was 132 and 156, respectively. Olejnic's method of power analysis was important to consider as data were analyzed in this study.

Research Methods

Research Instruments

The following three tools were used in this study to measure and assess implicit bias in nursing faculty:

1. The demographic survey (see Appendix A) contained questions related to faculty gender, age, geographical location, and their faculty position: years teaching, education level, and specialty area.

2. The Implicit Association Test (IAT) and questions asked participants about their feelings toward light- and dark-skinned people (explicit questionnaire). The IAT was composed of a series of seven blocks. One group of blocks was used for training purposes--participants become familiar with how to complete the IAT. The second group of blocks was the IAT itself. The Skin Tone IAT was chosen for this study because the faces in the test resembled the varied student phenotypes present in a typical classroom. In this particular IAT, participants completed three training blocks. In the first training block, a *map* was provided showing the range of facial skin tones. Because light and dark are subjective labels, participants practiced labeling faces as either light or dark by striking the assigned key on the keyboard. In the second training block, participants practiced striking the keys that corresponded with the words (concepts) *good* and *bad* (Nosek et al., 2007a).

Blocks 3 and 4 were called combined blocks. In Block 3, half of the participants connected light skin tone faces with the concept *good*. The other half of the sample connected dark skin tone faces with the concept *bad*. In Block 4, the groups were switched--the first half of the group connected dark skin and *bad* and the second half connected light skin and *good*.

Block 5 was another training block that prepared participants to connect dark skin with *good* and light skin with *bad*. This training block also moved the concepts (*good* and *bad*) from left to right, e.g., placing them on different sides of the screen. Blocks 6 and 7 were combined blocks using the same format as above; half of the sample connected light skin tone with *bad* and half connected dark skin tone with *good*. They then switched in Block 7. In analysis, comparison was made between Blocks 3 and 4 and Blocks 6 and 7 (Nosek et al., 2007a).

The inclusion of training blocks and multiple tests allowed for measurement of differences in handedness and the random appearance of faces and words in different locations on the computer screen. This process increased the validity and consistency of the test by allowing the participant to practice the skill before scoring occurred (Greenwald et al., 1998).

3. The third part of data gathering contained three questions asking participants to rate (on a scale of 1-10) their warm or cold feelings toward light- and dark-skinned people. The purpose of this question was to assess participants' level of explicit bias. This information allowed for comparison of implicit and explicit in data analysis.

IAT Validity and Reliability

Nosek et al. (2007a) admitted that the ongoing challenge for implicit measures had been achieving internal consistency and reliability. One of the strengths of the IAT was its ability to obtain greater reliability than other implicit measures, specifically in comparison to the Extrinsic Affective Simon Task (EAST). In direct comparisons conducted by Teige, Schnabel, Base, and Asendorf (as cited in Nosek et al.), the EAST had alphas of .19, .24, and .19, while the IAT achieved an alpha of .75.

In measures of internal consistency, the IAT again scored significantly higher than other latency-based measures. Internal consistency data from several researchers ranged from r = .69 to .9 for the IAT, substantially better than the r of -.05 to .28 obtained in research using other measures (Nosek et al., 2007a).

One of the most important aspects of analyzing implicit bias is determining the relationship between implicit bias and self-report (explicit bias). Hofmann et al. (2005) reported an average r of .24 between IAT results and self-report in their meta-analysis of 57 studies. Other researchers have obtained r = .37 to r = .46. In data from the Project Implicit (2008) site that gathered data on preferences for Al Gore relative to George Bush, the correlation was .86 (Nosek et al., 2007a).

Ethics and Human Relations

Risks of participating in this research study were minimal. Any discomfort or anxiety experienced by the participant should have been no more than the discomfort experienced in a classroom or community setting where sensitive subjects have been discussed. The fact that this study dealt with issues of racial bias was clearly outlined in the informed consent. Therefore, the researcher provided full disclosure as to the nature of the study. Risks and benefits were also disclosed. Risks included the time needed to complete the survey and IAT and the possibility of personal discomfort in dealing with the issue of racial bias. Benefits included important contributions to nursing knowledge and an increased personal awareness.

Participants had the right to full self-determination. They had the right to voluntarily decide whether to participate in the study. They could also decide at any time

during the process to discontinue their participation without fear of penalty or repercussion. All participants were university nursing faculty over the age of 18 and were not known to be members of a vulnerable population. As they were contacted via e-mail to participate in this study, participants had ultimate control over their participation. The informed consent was the first page of the survey e-mail. Participants implied consent by clicking "next" and beginning the survey. All participants had an electronic copy of the consent. Completion of the demographic survey and the IAT would have varied for each participant but should have taken approximately 10-15 minutes.

Anonymity for all participants was guaranteed. No identifying data were attached to the demographic survey or the Implicit Association Test, nor was it possible to electronically identify participants. Project Implicit (2008) also guaranteed anonymity of participants. At the end of the study, Project Implicit aggregated data from this cohort of participants with all respondents who had completed the Skin Tone IAT. An SPSS file with raw data was sent to this researcher and was stored on a password protected computer in a locked office.

Statistical Analysis

It was theorized and supported by data from previous studies (Cunningham, Preacher, & Banaji, 2001; Cunningham et al., 2004; Gong, 2008; Green et al., 2007; Hofmann et al., 2005) that participants would have an easier time associating light-skinned faces with *good*. As a result, the amount of time it took for participants to strike the key representing light-skinned and *good* was shorter than any other combination of concept and attribute. The participant was simply identifying the face as light or dark and matching it with the assigned attribute. Getting the "right" answer was immaterial; in

fact, wrong answers were discarded from the data set. The time it took to respond to the picture was the measurement of interest (Payne et al., 2008). This gap between picture and key press (response-latency) was the unit of measure being analyzed (Cunningham et al., 2001).

The response-latency (measured in milliseconds) was statistically converted into an IAT score. These scores were continuous variables and reported as D-scores. The D-score was a variant of Cohen's *d* (Greenwald et al., 2003). It was calculated by measuring the difference between the pooled results of Blocks 3 and 4 and Blocks 5 and 6. That difference was then divided by the standard deviation of all trials in the four blocks. D-scores greater than zero denoted the existence of implicit bias. This was a fairly new method of analyzing the IAT (Greenwald et al.). Prior to 2003, scores were simply attained by calculating the mean response-latencies within blocks. This method did not take into account individual differences such as eye-hand coordination, age, visual perception, etc. that were not influential in determining implicit bias. This newer algorithm has been shown to increase the validity of the measure because of the following changes to the original algorithm. The new algorithm had a systematic method for eliminating subjects who responded slowly (responses >10,000ms or those respondents for whom 10% of their responses have latencies less than 300ms). The new algorithm also computed all scores along with computing differences between four testing blocks (3 and 4, and 5 and 6) instead of two testing blocks in the previous IAT format (Greenwald et al.).

After D-score calculations were completed for all combined blocks, data were analyzed using descriptive and inferential methods. Significance in IAT scores was

determined using one-sample *t*-tests; correlations between IAT and explicit measures were determined using two-sample *t*-tests. Analysis of variance was used to determine whether differences in categorical variables (gender, racial self-classification, size and type of university, geographical location, etc.), compared to IAT scores, were statistically significant. Regression was used to determine whether any of the continuous demographic variables (age, years in nursing education) functioned as moderator variables to the IAT (Hofmann et al., 2005). In other words, it was determined whether certain characteristics of nursing faculty influenced the existence or level of implicit bias within the sample.

Data Reporting and Analysis

Data were analyzed using the Statistical Package of Social Sciences (SPSS). Descriptive statistics (mean, frequencies, and standard deviation) were used to summarize demographic data. Inferential statistics were used to determine correlations between IAT scores and demographic variables and correlations between IAT scores and explicit measures. These data are reported in narrative and table format in Chapter IV.

Summary

The study of implicit bias is an important step in forwarding an understanding of racism in nursing. The most valid and reliable tool available to measure implicit bias is the Implicit Association Test (IAT). This study used the IAT to measure the existence of implicit bias in nursing faculty. It used a descriptive correlational research design to (a) establish the existence of implicit bias in nursing faculty and (b) analyze the relationships between levels of implicit bias and specific demographic variables. The study also determined whether there were significant differences between implicit bias, as measured

with the IAT, and self-reported explicit bias. The findings of this study will provide nursing education with provocative data that will hopefully lead, not only to more open discussions about the effects of racism, but to an inquiry into the institutional structures that maintain its presence in the academy.

CHAPTER IV

RESULTS

This chapter contains the results of the study. It begins with a thorough description of sample participants followed by the results of the IAT and explicit bias questionnaire. These results are reported and organized around the three research hypotheses supporting the research question: To what degree does implicit racial bias toward people of color exist in nursing faculty teaching in BSN programs in the United States? The hypotheses are as follows:

H1 Unconscious implicit racial bias exists in nursing faculty.

H2 Implicit racial bias is associated with certain demographic criteria (e.g., age, years teaching nursing, geographic location, racial self-classification, gender, etc.).

H3 Differences exist between an individual's level of explicitly reported racial bias and level of implicit racial bias.

Description of the Sample

Electronic invitations to participate in the study were sent to approximately 355 educators across the United States. These nurse educators were chosen from websites of their colleges or universities. Five colleges or universities were chosen from each region of the country and then five to seven educators were chosen from each of those institutions. Colleges and universities were purposely chosen to balance size (small, medium, and large enrollment) and type (public vs. private). Of those invited, 139 responded and completed some part of the study. Of the 139 responses, 107 included a completed Implicit Association Test (IAT) and were usable for the study, even though

some demographic answers were missing. Tables 1 and 2 provide a summary of respondent demographics.

Table 1

Personal Characteristics of Study Respondents

Characteristics	*n*	Median	Mean	Range
Age	106	54	55.4	35-77
Gender	107			
Male	2			
Female	105			
U.S. citizen	107			
Racial Self-classification	106			
White	97			
Black	2			
Latino	1			
Other	2			
Would rather not say	4			
Ethnicity	107			
Hispanic	1			
Not Latino or Hispanic	100			
Would rather not say	6			

Table 2

Professional Characteristics of Study Respondents

Characteristics	%	*N*	Median	Mean	Range
Years in Nursing Education		105	10	14.3	1-45
Education Level--*n* = 106					
Masters	47%				
Ph.D.	43%				
Other (not Bachelors)	.9%				
Certification--*n* = 63					
RNC	11%				
CNE	11%				
ARNP	27%				
CNS	21%				
Other	24%				
University Type--*n* = 106					
Public	66%				
Private	34%				
University Size (enrollment)--*n* = 102					
<1000	12%				
1,000-3,000	20%				
3,000-5,000	15%				
5,000-10,000	21%				
10,000-15,000	6%				
15,000-20,000	10%				
>20,000	13%				
Region of Residence--*n* = 93					
West	12%				
Mountain west	14%				
Midwest	25%				
South-central	9%				
Southeast	30%				
Northeast	2%				

Although the demographic data showed good variability with regard to age, experience, geographic location, and university size and type, there was little variability

in racial self-classification, ethnicity, and gender. Because of the lack of sufficient numbers of participants of color and men, it was not possible to make significant statements as to how these personal characteristics influenced IAT scores. Since the data from this study were compared to data gathered on the Project Implicit public site (from 122, 988 respondents who completed the Skin Tone IAT between March 2001 and May 2006; Nosek et al., 2007b), it is important to compare the demographics of each of these study groups. Project Implicit participants were 69% female and 31% male, 58% White, 14.3% Black, 8.5% Hispanic, 6.8% Asian, 7.5% Multi-ethnic, 1.1% AI/AN, and 4.1% other. Their mean age was 26 (*SD* = 11), 42% had a bachelor's degree or higher, and 86% were U.S. citizens (Nosek et al.). It is important to mention that, although the Project Implicit sample was very large, it still should not be assumed that it was representative of the general population. Individuals who completed the IAT needed to have access to a computer, needed to learn about the site from some source, and needed to be able to physically complete the tasks required of the test. Nosek et al. explained, however, that the variability of the Project Implicit demographics was still greater than those obtained in laboratory environments.

In comparing the two samples, the nurse educator study group was older (*M* = 54) and more highly educated (100% of study participants had a master's degree or higher) than respondents on the public IAT site (*M* = 26). The ethnic and racial self-classification and gender percentages in the study group matched percentages in the larger study but existed in numbers too small to allow for accurate data analysis.

The Existence of Implicit Racial Bias

The first hypothesis to be tested in this study was whether nurse educators' performance on the IAT demonstrated a level of bias and whether that level of implicit bias was significant. D-scores (a derivative of Cohen's *d*) greater than zero denoted a greater affinity toward light-skinned persons. A one-sample *t*-test was performed (see Table 3) to obtain the mean D-score and determine its significance. The mean of .35 was significant at a level of $p < .01$. This moderate level of implicit bias was consistent with Skin Tone IAT results gathered on the Project Implicit public website between March 2001 and May 2006. Project Implicit results showed a mean D-score of .30 with a *SD* of .41 (Nosek et al., 2007b), highlighting the fact that IAT scores for this sample of nurse educators did not vary significantly from a large sample of the general public.

Table 3

T-Test for the Implicit Association Test: Test Value = 0

One-Sample Statistics	*N*	Mean	*SD*	Std. Error Mean
IAT score	107	.3513	.4240	.04099

One-Sample *T*-Test: Test Value = 0

	t	df	*p* (2-tailed)	Mean difference	95% Conf. Int.
IAT score	8.569	106	**.000	.35128	.2700 .4326

**$p < .01$

Correlation Between Implicit Bias
and Demographic Variables

With determination of the existence of implicit bias completed, the next step in data analysis, and the next hypothesis to be tested, was to determine whether any of the demographic variables functioned as moderator variables. In other words, were there characteristics of respondents that increased or decreased the level of implicit bias as measured by the IAT?

Tables 4 and 5 summarize the results of demographic variable and IAT analysis. Single-factor ANOVA, Pearson correlation, and two-sample *t*-tests (see Table 6) were performed comparing IAT scores with each variable. Significance levels in these comparisons ranged from .077 to .728, i.e., none of the demographic variables moderated the level of implicit bias.

Table 4

Analysis of Variance for IAT and Demographic Variables

Variable	SS	df	MS	*F*	*P*-value
Racial Self-classification	[a].853	4	.213	1.190	.319
	[b]18.098	101	.179		
Ethnicity	[a].217	2	.109	.598	.552
	[b]18.726	103	.182		
Level of Education	[a].116	2	.058	.319	.728
	[b]18.827	103	.183		
University size	[a]1.890	6	.315	1.794	.109
	[b]16.686	95	.176		
Region	[a]1.466	5	.293	1.790	.123
	[b]14.253	87	.164		
Certification	[a].487	4	.121	.747	.563
	[b]9.461	58	.163		

Note. a denotes between groups, *b* denotes within groups

Table 5

Regressions for IAT and Demographic Variables

Variable	df	*t*	r^2	*P*-value
Age	105	1.518	.022	.132
Years in Nursing Education	104	-1.026	.010	.307

Table 6

T-Test: Demographic Variable Two-Sample

Two-sample statistics	t	df	p (2-tailed)	Pooled variance
Gender	-.723	104	.471	.181
University type	-1.786	104	.077	.177

Correlation Between Implicit and Explicit Bias

The final hypothesis to be tested was that differences exist between an individual's level of explicitly reported bias and level of implicit bias as measured by the IAT. A paired, two-sample *t*-test was performed with IAT and explicit questionnaire scores, showing a statistically significant difference (see Table 7).

Explicit scores were obtained through three questions asking about feelings toward light- and dark-skinned people (see Appendix H). Answers to Question 1--"Which statement best describes you?" were scaled from 1 to 7 with 1--*I strongly prefer Light skinned people to Dark skinned people* and 7--*I strongly prefer Dark skinned people to Light skinned people*. Questions 2 and 3 were thermometer scales asking, "Please rate how warm or cold you feel toward light skinned people" and "Please rate how warm or cold you feel toward dark skinned people." On this scale, 10 was *very warm*, 1 was *very cold*, and 5 was *neutral*. In order to correlate IAT with explicit scores, explicit scores needed to be converted through standardization by range so that both

scales (IAT and explicit) had the same -1 to 1 range with 0 in the middle (Greenwald et al., 2003).

Table 7

T-Test: Implicit and Explicit Correlations

T-Test for the Implicit Association Test: Test Value = 0

One-Sample Statistics	*N*	Mean	*SD*	Std. Error Mean
IAT score	107	.351	.424	.041

T-Test for the Explicit Test: Test Value = 0

One-Sample Statistics	*N*	Mean	*SD*	Std. Error Mean
Explicit score	101	.107	.203	.020

Paired Two-sample statistics	*N*	Mean	Variance	*t*	df	*p*(2-tailed)	Pearson *r*
IAT	91	.330	0.189				
Explicit Test	91	.101	0.039				
IAT/Explicit				5.057	90	**2.23E-06	.239

** $p < .01$.

The statistical significance of these implicit/explicit correlations showed that nurse educators' self-reported level of bias toward people of color was significantly less than their actual bias as measured with the IAT. Scores on the explicit test fell largely near the zero point, meaning that respondents felt they had neutral or equal feelings toward light- and dark-skinned people. This discrepancy validated theory about the difference between implicit and explicit measures of bias. Individuals were more likely to

explicitly report lower levels of bias for two reasons: (a) They may have wished to appear un-biases by reporting levels that were perceived as socially desirable or (b) they may have been unable to report a significant level of bias because they were unaware that biases existed (Nosek et al., 2007b). These implicit/explicit results were consistent with data gathered on the Project Implicit website from March 2001 to May 2006 from participants completing the Skin Tone IAT ($M = .17$), although the standard deviation in the Project Implicit sample was .67 (Nosek et al.). In fact, the IAT/Explicit differential was somewhat greater (although not statistically significant) for the nurse educator group.

Conclusion

Analysis of IAT and explicit scores gathered from a sample of nursing faculty across the United States showed that implicit bias did exist in this sample of faculty. Implicit bias showed no correlation to several personal and professional demographic variables. When implicit and explicit scores were compared using a paired, two-sample *t*-test, implicit scores were significantly higher than explicit scores. These results were consistent with both theory and previous research (Cunningham et al., 2001; Green et al,. 2007; Greenwald & Krieger, 2006; Greenwald et al., 2003; Hofmann et al., 2005; Payne et al., 2008). Further discussion of results and implications follows in Chapter V.

CHAPTER V

SUMMARY AND DISCUSSION

This chapter provides a summary of the context, purpose, and further analysis of the results of this study on implicit racial bias in nursing faculty. It also discusses how the results of the study expanded on and challenged existing theory and research. Suggestions for future research are made in the hopes that the existence of bias and its implications for nursing education will continue to be studied.

Summary of Context and Purpose of the Study

The purpose of this study was to examine the existence of implicit racial bias in nursing faculty within a conceptual framework that viewed racism as having three integrated components: institutionalized, personally mediated, and internalized racism. Although complete definitions of these concepts were included earlier in this paper, it is important to note that racial bias was an integral factor in each of these manifestations of racism. It was within this framework that this study sought to determine the level of implicit racial bias in nursing faculty, knowing that bias could both affect and be affected by greater societal institutions, interpersonal relationships, and an individual's self view.

This study was fueled by data showing continued disparate academic and NCLEX-RN pass rates between students of color and White nursing students. In determining why these disparities continue to exist in spite of increased efforts at recruitment and support, this researcher was compelled to examine the relationship between student and nurse educator to determine if racial bias might be a factor.

To appreciate the context of this study, it was important to examine the nature of racism and bias. Racism is an institutional and systematic process whereby a group of people is restricted from achieving the full benefits of the institution. Bias is a personal attitude that manifests itself in a variety of ways that support the continued existence of racism. Race is a social construct that has been a powerful aspect of life in the United States. This construct, along with the racism and bias that accompany it, are embedded into the very fabric of American society. As such, they cannot be separated from existent institutions, including education.

Within a critical race theory framework, racism is seen as a permanent, pervasive, and systematic condition, not an individual process (Trevino et al., 2008). As a result, it continues to adapt and change with changing societal norms and practices. As overt expressions of racism have become socially undesirable or illegal, racism and bias have adopted more covert manifestations that have become difficult to identify. This phenomenon is especially apparent in nursing as the nature of its core philosophies have made identifying covert racism particularly challenging. Nurses are educated to treat everyone in the same egalitarian manner; exhibiting no preference for one group of people over another (Barbee, 1993). This color-blind attitude makes accurately determining bias via traditional explicit methods extremely difficult.

The Implicit Association Test (IAT) has been shown to circumvent the explicit response and measure the level of implicit, unconscious bias in respondents. A more accurate assessment of bias in nursing faculty can support vital conversations that have the potential to transform nursing education and the students who journey through the institution of nursing education.

Review of the Methodology

As described in Chapter III, this study used a descriptive, correlational research design to determine the existence of implicit bias in nursing faculty teaching in baccalaureate nursing programs in the United States. Levels of implicit and explicit bias were measured through the use of the Implicit Association Test (IAT) and an accompanying explicit questionnaire. The IAT score was correlated with several demographic and environmental variables: age, gender, race, ethnicity, teaching environment, and experience. A correlation between implicit and explicit bias was also determined.

Participants for this study were purposefully chosen from rosters of nursing faculty on university and college websites. All participants were sent an e-mail invitation with a link to the study site. The study site included instructions, informed consent, the demographic survey, the explicit bias questionnaire, and the Skin Tone IAT.

Summary of the Results

The sample for this study was drawn from a population of approximately 355 nurse educators who were sent electronic invitations to participate in this study. Of those invited, 139 responded by completing some portions of the questionnaires and/or the IAT. Of those 139 responses, 107 educators completed the IAT and all or most of the demographic questions. The explicit questionnaires were completed by 102 respondents. Ninety-one respondents completed both the implicit and explicit measures. Overall response rate for completion of the IAT was 30%, completion of the explicit measures was 29%, and completion of both IAT and explicit measures was 26%.

Descriptive statistics were gathered on the IAT scores, the standardized explicit scores, and the demographic variables. Demographic data showed good variability with regard to age, years in nursing education, and geographic location. Although ratios were similar to the general nursing population, there was little variability in race, ethnicity, and gender; only two males, two African Americans, and one Latino completed the entire survey. The remaining respondents were White females. Given that White women control and maintain the institution of nursing education in the United States, this sample represented those in power.

The next step was to determine whether the IAT scores were significantly different from zero, thereby documenting a moderate level of implicit bias within this sample. IAT scores ($M = .35$, $SD = .424$) were significantly different from zero ($p < .01$). Analysis of variance, Pearson correlations, and two-sample *t*-tests were used to determine whether any demographic variables moderated the IAT. In other words, a determination was made as to whether certain demographic characteristics influenced the existence or level of implicit bias within the sample. Significance levels in these comparisons ranged from $p = .077$ to $p = .728$, i.e., none of the demographic variables influenced the level of implicit bias.

In the final step of data analysis, the divergence between implicit and explicit measures of bias was determined. A paired, two-sample *t*-test was conducted on data from 91 participants (the number of respondents who completed both the IAT and all three sections of the explicit questionnaire). The IAT ($n = 91$, $M = .330$) and explicit questionnaire ($n = 91$, $M = .101$) were highly correlated ($p < .01$, $t = 5.057$, Pearson $r = .239$), meaning that there was a significantly lower level of bias reported on explicit

measures (questionnaires) than on the IAT. These results were consistent with both the theoretical and empirical literature highlighting the strong tendency for respondents to provide socially desirable answers to explicit measures. In other words, they claimed to have neutral or equal feelings toward all people.

The IAT scores and the IAT/explicit correlations were not statistically different from data gathered on the Project Implicit public website from over 122,000 participants over a five year period of time (see Chapter IV). As will be discussed more completely below, this was significant information. Nursing education spends a great deal of time and intention educating students to treat others in an egalitarian, non-biased manner. The data showed that nurse educators, those who teach and interact with students, had the same level of bias as an undifferentiated sample of the general public. Albeit, the Project Implicit sample displayed some particular characteristics that were previously described (see Chapter IV).

The Challenge for Nursing Education

The results of this study have significant implications for nursing education. The results are discussed from two points of view:

1. How the results supported the tenets of critical race theory and qualitative research describing acts of bias in education.

2. How these results challenged the belief that nurse educators treat students in unbiased ways, and that nursing as a profession is unbiased in its approach to practice, education, and research.

Critical race theory views racism as a systemic issue, not an individual process. As such, racism permeates all aspects of society: both interpersonal relationships and

social, political, and economic institutions (Vaught & Castagno, 2008). Nursing education and higher education in general cannot divorce themselves nor think they are not influenced by these greater societal influences of racism. The level of bias documented in faculty IAT scores demonstrated, at least in this sample of participants, that societal pressures and influences acted upon nurses to the same degree they did on the general population.

Critical race theory also highlights the power differential between Whites and people of color as the mechanism whereby societal institutions remain in the hands of the dominant population. In the case of nursing education, this means that nursing continues to be controlled by mostly White women. Qualitative studies have consistently documented the belief of students of color that they have little power to change their circumstances, either at the personal or institutional level. While there is literature suggesting how students of color can more successfully cope with these situations (Beagan, 2003; Coleman, 2008; Stewart, 2005), there is little discussion about how White faculty can become more aware of their biased statements and actions. The results of this study in essence validated the statements of students of color (and faculty of color) with regard to their differential treatment within nursing education.

The documented existence of racial bias in nursing faculty clearly challenges the central belief in nursing that everyone is treated in an equitable manner. This statement is based on the assumption that bias influences behavior toward the object of that bias. Studies using the IAT as a predictive measure have documented this to be true (Green et al., 2007; von Hippel et al., 2008), so that assumption was made here as well. Discussion of this aspect of bias as a subject for further study is discussed below.

This critical challenge to nursing's basic beliefs requires a willingness to honestly look at the deeper issue supporting racism and bias in nursing education--the inherent Whiteness of nursing. This will challenge White nurse educators as, similar to White society as a whole, they are taught and educated to ignore color. The dismissal of color as an issue in education becomes an unconscious habit that, over time, reinforces unequal power structures within education (Sullivan, 2006). An example of an unconscious habit is the language used within nursing education that has evolved from White, middle-class, female roots. This use of language influences descriptions of disease processes, defines nursing skills, creates academic and clinical priorities, and ultimately formalizes what is considered to be nursing knowledge. The use of language perpetuates the power differential in an unconscious way because it is considered *nursing* language. As a result, the responsibility of those students who find themselves outside of the nursing norm (White, middle class, and female) must either adapt to that environment by skillfully negotiating and imitating the White way of being or fail.

As explained above, racism is maintained within the fabric of society through the use of language that has become unconscious to the White person using it (although it is almost always visible to people of color). In order to create a more power-balanced environment in nursing education, these unconscious habits need to be made visible. Although study and argument may play a part in dismantling racism, the dismantling process will not be successful without White nurse educators understanding the unconscious workings of White privilege (Sullivan, 2006). If nursing education does not engage in this analysis and acknowledge the existence and role of racism and White privilege in student success, there is a risk of concluding that race is the cause of

academic disparities (Carlson & Chamberlain, 2004). Avoidance and lack of discussion is what supports the on-going manifestations of White privilege in education. Open and honest discussion is a first step toward changing the structures that reinforce White privilege. Listening needs to take place across racial lines (Bosher & Pharris, 2009). Educators need to be knowledgeable about academic disparities and be willing to analyze those disparities in the context of the experience of students of color. This process requires an open and non-defensive stance, a particular challenge for a White institution because of the general aversion to the concept of racism existing in nursing education.

In the process of open and honest conversation, White educators will also need to appreciate their position in the teaching and learning process. In other words, educators need to see that they have a position of power and dominance in the educational setting. This may be a difficult concept for educators to accept because, at the same time, their positions as White educators are seen as the status quo or the "neutral baseline" (Harris, 1993, p. 1715). Adding to this difficulty in accurately perceiving issues of power and dominance is the deep discourse of victimhood in the nursing profession.

Strategies to bring these issues of position and neutral baseline to light would include having educators engage in experiential exercises that place themselves in the role of "the other." This would require the creation of a trusting environment that allowed for self-expression and questioning with the clear goal of eliminating racism within the school of nursing and institution. In addition to didactic discussions of position and power, creative use of film and novels has also been shown to provide insight and the ability to appreciate the other's point of view and experience (Abrums & Leppa, 2001).

Other issues regarding White educators' self-view as non-racialized people would also need to be addressed in confronting racism in nursing education. Harris (1993) and Vaught and Castagno (2008) discuss the fact that Whites see themselves as individuals and not members of a cultural group. Racialized students, on the other hand, are seen as being part of a larger, culturally different population. In this context, any discussion of racism or bias is seen as a personal affront to the White person. White teachers are viewed as individuals and racialized students are seen as a unified whole; thus, student failure is identified as the responsibility of the overly individualized teacher. This also creates defensiveness on the part of White teachers as they are blamed for academic disparities. Powell (1997) adds to this discussion by asserting that the anxiety White teachers experience around their ability to effectively teach students of color is projected onto these students within a "discourse of deficit" (p. 4). At the same time, White teachers see White students existing within a "discourse of potential" (p. 4).

Persons discussing the results of this study would need to understand this mechanism and find ways to move beyond a debate regarding individual practices. There is value in confronting the individual vs. group phenomenon directly by describing and discussing it, but it cannot stop there. In the process of viewing racism as a larger systemic issue, a thorough evaluation of curriculum and pedagogy needs to occur with the intention of assuring that both are culturally inclusive. Two tools are currently available for that purpose: the Fair Representation of Diversity Content tool (Scisney-Matlock, McCloud, & Barnard, 2001) and the Byrne Guide (Byrne, Weddle, Davis, & McGinnis, 2003). Culturally inclusive textbooks, curricula, and teaching strategies help bring racialized people, who are most often left at the margins of academic discourse, to

the center. As a result, the center of nursing education that is predominantly White begins to transform into a more power-balanced and inclusive place.

Along with a critical analysis of racial inclusion in curriculum and teaching strategies, faculty need to question and discuss how they talk about race and racism, both in the classroom and amongst themselves. Are they uncomfortable with the topic? "What are they modeling for students" (Bosher & Pharris, 2009, p. 22)? Are they setting clear limits on making discriminatory comments? When faculty create a culture of open and honest discussion about racism, students of color can feel more open to sharing their experiences of racism and discrimination in the classroom, the clinical setting, and the wider community. As these experiences are shared, heard, discussed, and, when necessary, acted upon by White faculty, the center of power can shift from being one in which faculty decide what constitutes meaningful events to one in which students of color have control over their own lives.

White people in general find discussions of race uncomfortable. Nursing has an additional challenge in this regard as nurses are generally averse to conflict (Barbee, 1993). This was another challenge presented by the results of this study. If nurse educators open themselves up to serious, honest discussions of race, power, and privilege within the institution, disagreements will arise. Educators will need to come to peace with those disagreements as they seek to work within a social justice framework and not with an individual focus on opinions and beliefs (Vaught & Castagno, 2008).

Theoretical literature (Allen, 2006, Campesino, 2008, Wise, 2005) and qualitative research around the phenomena of racism and bias for nursing students (Beagan, 2003; Coleman, 2008; Eliason, 1999; Giddings, 2005) provide essential frameworks for future

studies of White privilege and its manifestation within the institution of nursing education. But what can be done right now to begin transforming nursing education to make it a more welcoming, power-balanced environment for students of color? What changes need to occur within the academy and the classroom to make it easier for students of color to successfully graduate and pass the NCLEX-RN?

Stetz (2009) outlines the following interventions that will assist faculty and administrators in reflecting on the attitudes and practices of their program and institutions:

1. Provide programs that assist faculty in assessing their attitudes toward students of color.

2. Encourage and/or provide incentives for faculty to participate in anti-racism workshops.

3. Teach students how to "recognize and dismantle white or dominant group privilege" (p. 35).

4. Assure that the mission of clinical sites is to promote social justice.

5. Evaluate how racialized and cultural groups are represented in textbooks. "Are discussions of historical and current injustices (social, economic, and educational) included?" (p. 35).

6. Pedagogically transform the teaching of multiculturalism to dismantle racism.

7. Evaluate the requirements for program entry. Do they privilege one group over another (i.e., heavily weighting GPA or SAT scores)?

8. Provide pre-admission support to students of color, especially when they are entering a White institution.

9. Provide mentoring processes that are created by students of color.

10. Provide a mechanism whereby students of color can share their experiences and "influence institutional decision making" (p. 35).

While implementing these anti-racism interventions at the classroom, nursing program, and institutional levels can begin the process of transforming the Whiteness of nursing education, it is important to remember that nursing exists within a larger community. Changing the way nursing education interacts with racialized institutions in the community can have a powerful effect on the experiences of all nursing students. Stetz (2009) suggests that nursing programs evaluate the following attitudes and actions regarding community involvement:

1. Are there relationships between the nursing program and racially diverse churches and other community-based organizations?

2. What is being offered to youth of color in the community to better prepare them for college entrance and the health profession?

3. How can the nursing program "bring nursing care to marginalized communities" (p. 35)?

Limitations of the Study

As an exploratory study, the data collected provide a starting point for further research into bias and racism in nursing education. In further studies of implicit bias, however, significant methodological and sampling changes could enable the collection of better predictive and comparative data.

A larger, more diverse sample would allow for comparisons of implicit bias between gender, racialized, and non-racialized ethnic groups. A random sampling of participants would increase generalizability. A larger sample size would also have provided more significant data on the relationship between IAT scores and demographic variables. Regression analysis results would have had more power with a larger sample. While none of the relationships between IAT and demographic variables in this study was significant, there are data in the literature suggesting that personal and environmental differences had an impact on bias (Greenwald et al., 2003; Nosek, 2007). Some of the demographic questions may have been irrelevant to the study (zip code of longest residence, professional certification, specialty area of practice) and, on reflection, were not needed. Fewer, more critical questions (e.g., age, gender, racial self-classification, residence) could have provided more focused results and would have saved participants' time.

There was a fairly significant attrition rate as participants completed each section. One suggestion would be to alter the instructions to include a phrase requesting that respondents complete all three sections of the study (demographic questionnaire, IAT, and explicit measures). Some respondents communicated with this researcher saying they had difficulty viewing the IAT on their computers. This was an individual software issue that would be difficult to control unless participants were in a controlled environment.

While the IAT is a promising tool in the measurement of implicit bias, the ability to gather qualitative data (reactions and thoughts) from participants after they had completed the test would allow for a more complete picture of the existence of bias. This

strategy was not included in this study but leads one to creative ideas for further research outlined below.

Areas for Further Research

As stated above, this study of the existence of implicit racial bias in nursing faculty is an exploratory study. Because levels of implicit bias, and the racism that it supports, have individual and institutional implications, future research in both of these areas would be valuable to nursing education.

With regard to how implicit bias influences individual behavior, it would be important to conduct experimental research on whether implicit bias is a causal factor in educational outcomes for students. Is there a difference in outcomes for students of color who work with professors with higher or lower levels of implicit bias? Is there a difference in student perceptions of professors who exhibit higher or lower levels of implicit bias? Are there specific actions, behaviors, or statements made in the classroom or clinical setting by professors with higher or lower levels of implicit bias?

There is a plethora of scholarly discourse about the validity of the IAT as a measurement tool (Greenwald, et al. 2003; Greenwald, Nosek, & Sriram, 2006). As a result, it would be interesting to know whether a high (or low) implicit bias score coincides with how the educator discusses issues of race. Analyzing discourse (Bonilla-Silva, 2006; Gee, 1999) and making comparisons to IAT scores (both implicit and explicit) would yield interesting information about how our attitudes are manifested in language.

While these questions of bias and student success are very important, the power of bias and racism, as discussed above, exists in the unconscious habits and power

differentials that imbue both the institution of nursing education and the nurses who work within it. The significant difference between educators' reported level of racial bias and their actual implicit level of bias needs to be addressed and studied further if significant structural changes to nursing education are to be made. The strategy for accomplishing this task is simple and complex at the same time: It needs to be talked about openly (Sullivan, 2006; Tatum, 1999). Nosek (2007) discovered that reflection on issues of race and personal bias tended to reduce the IAT/explicit bias discrepancy over time. A study where participants complete the IAT and explicit questionnaire, then participate in a discussion of the results, could yield valuable information about how nurses describe, integrate, and move through these discrepancies. The format of this study could also provide valuable information on effective group facilitation around issues of bias and racism.

This discussion of the discrepancy between what nurses think they believe versus their unconscious bias needs to extend beyond a conversation of individual practices to include an examination of the core beliefs of nursing education. Research into the structure of nursing education needs to be conducted from a critical race theory perspective**.** Although changes in one's personal awareness are always important, translating personal awareness of racism and bias to significant changes for all nursing students is extremely difficult, if not impossible, in the face of an institution that remains unaware of the racism that permeates it.

Conclusion

While students and faculty of color have shared their experiences of racism and bias in essays and qualitative research, this was the first time bias in nursing education was quantified through the use of the Implicit Association Test. Further studies need to be conducted to establish the reliability of the IAT as an accurate tool in predicting educator behavior and student success. However, this study created an opportunity for discussion about and examination of the existence of bias in nursing education.

This exploration of the existence of implicit racial bias in nursing faculty established that a moderate level of implicit bias existed in this sample of nurse educators. While this information could be viewed as an individual phenomenon, something to be "dealt with" on an individual basis, the power of this study lay in viewing racism as a social construction that must be examined within the context of the greater societal institutions that hold it in place. In the case of nursing education, the greater institution is by and large White and female. Harris (1993) discusses the challenges of transforming this system by pointing out that "what persists is the expectation of White-controlled institutions of the continued right to determine meaning" (p. 1762). In other words, an examination of the persistence of bias, racism, and White privilege within nursing education would require crucial and difficult conversations about who maintains power over process and knowledge.

Critical race theory provides a framework for these discussions. Within this theory, the existence of racism and bias is seen as systemic. In the case of nursing education, educators are the sum of all experienced social interactions and natural processes. These experienced interactions and processes go on to create and influence future social interactions and natural processes, thereby creating a seamless integration of

individual and environment. Until these phenomena are purposefully and consciously examined by educators, they will remain unconscious. Functioning as unconscious habits of nursing education, racism, bias, and White privilege will continue to control pedagogy, curriculum, and research in ways that will continue to frustrate any attempts at creating a more welcoming and power-balanced environment for racialized students.

Questions remain as to how willing or able nursing education is to address these substantial structural issues. Can racism, bias, and White privilege in nursing be viewed accurately given the particular White female lens and filters inherent in the profession? Vaught and Castagno (2008) have posed some important questions in their study that also apply to the challenges facing nursing education. What are the structural changes that need to take place in order to create "true accountability" to students of color (p. 111)? Will nursing need to focus on White privilege in order to create a more equitable learning environment? Could nursing's commitment to evidence-based practice be a catalyst in determining whether our views on racism, bias, and White privilege are based in evidence or "merely a reflection of prevalent stereotypes" (Tashiro, 2005, p. 209)? Ultimately, nursing education will need to search its collective soul to determine if there is a willingness to re-examine its core philosophies and beliefs in order to create the true egalitarian profession it envisions.

APPENDIX A

INSTITUTIONAL REVIEW BOARD COVER PAGE

UNC INSTITUTIONAL REVIEW BOARD

Application Cover Page for IRB Review or Exemption

Select One: _____Expedited Review _____Full Board Review __X Exempt from Review
Allow 2-3 weeks Allow 1 month Allow 1-2 weeks

Project Title:

Lead Investigator Name: Kathleen Fitzsimmons, RN, MEd, PhD(c)
Department: Nursing
Telephone: 425-486-1732
Email: fitzsk@spu.edu

Research Advisor Name: Faye Hummel, RN, PhD
(if applicable) Department: Nursing
Telephone: 970-351-1697
Email: Faye.Hummel@unco.edu

Complete the following checklist, indicating that information required for IRB review is included with this application.

Included	Not Applicable	
___X___	_____	Copies of questionnaires, surveys, interview scripts, recruitment flyers, debriefing forms.
___X___	_____	Copies of informed consent and minor assent documents or cover letter. ***Must be on letterhead and written at an appropriate level for intended readers.***
___X___	_____	Letters of permission from cooperating institutions, signed by proper authorities.

CERTIFICATION OF LEAD INVESTIGATOR

I certify that this application accurately reflects the proposed research and that I and all others who will have contact with the participants or access to the data have reviewed this application and the Procedures and Guidelines of the UNC IRB and will comply with the letter and spirit of these policies. I understand that any changes in procedure which affect participants must be submitted to SPARC (using the Request for Change in Protocol Form) for written approval prior to their implementation. I further understand that any adverse events must be immediately reported in writing to SPARC.

Kathleen Fitzsimmons 3/4/09
Signature of Lead Investigator Date of Signature

CERTIFICATION OF RESEARCH ADVISOR (If Lead Investigator is a Student)

I certify that I have thoroughly reviewed this application, confirm its accuracy, and accept responsibility for the conduct of this research, the maintenance of any consent documents as required by the IRB, and the continuation review of this project in approximately one year.

Signature of Research Advisor Date of Signature

Date Application Received by SPARC:

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPLICATION

University of Northern Colorado
INSTITUTIONAL REVIEW BOARD

Application for Exemption from IRB Review Guidelines

Section I – Statement of Problem / Research Question

The quest for a more diverse nursing profession that provides better care for an increasingly diverse population in the United States has fueled countless conversations about how nursing education can attract and support greater numbers of under-represented students. This need for more diversity in nursing occurs in the context of a generalized nursing shortage that is projected to worsen in the years ahead. The literature provides several examples of programs that focus attention on the recruitment and retention of minority students (Stewart, 2005; Guhde, 2003; Evans, 2007; Johnston, 2001; Coleman, 2008). Some of these programs show evidence of successful outcomes for students of color (Klisch, 2000; Gardner, 2005). Still, nursing remains a mostly white profession with disparate academic and NCLEX-RN success rates for white students and students of color. In this study, success is defined as graduation from a baccalaureate nursing program along with passage of the NCLEX-RN. With these issues as background, this study examines what may be contributing to lower success rates for nursing students of color, namely unrecognized faculty racial bias toward the student of color.

This study is grounded on the premise that nursing education and nurse educators cannot remove themselves from the greater cultural influences present in the United States, specifically racism. It is important to clarify the distinction between racism and bias in this discussion. Racism is an institutional and systemic process whereby a group of people is restricted in achieving full access to the benefits of that institution. Bias is a personal attitude toward others that manifests itself in a variety of ways. It follows that establishing the existence of racism in nursing education, and the bias that proceeds from it and helps maintain it, could provide valuable information about the faculty/student of color relationship and ultimately, insight into experiences

that may influence recruitment, retention, and success of students of color. Research has shown (Green et al, 2007), however, a substantial difference in how health care providers respond to questions of explicit bias (bias that can be measured in written surveys) and bias that is essentially unconscious to that provider (implicit bias). This study will explore the existence of implicit racial bias among nurse educators in BSN programs in the United States.

This study uses the Implicit Association Test (IAT), an internet-based program that measures unconscious bias toward people with different skin tones. The IAT measures the speed with which participants pair attribute words such as good/bad, wonderful/awful, with pictures of faces with skin tones ranging from very light to very dark. The IAT shows high validity and internal consistency. Millions of people have completed various versions of the IAT both on the Harvard demonstration website and in research studies (Greenwald, Nosek, & Banaji, 2003). The Skin Tone IAT was chosen for this study because the faces in the test resemble the varied student phenotypes present in a typical classroom. While the IAT has been used as a research method in disciplines ranging from law to psychology, this will be the first time it is used in nursing research.

Information regarding the existence of implicit bias is important for nurse educators to have because recruitment and retention programs aimed at students of color may be undermined if the encounter between the student of color and the faculty member is strained because of unconscious expressions of racial bias. In bringing implicit bias to consciousness, educators have the opportunity to address, through training and dialogue, ways in which the classroom can become a more open, welcoming, and power-balanced environment.

Research Question

This study will attempt to answer the following question: To what degree does implicit racial bias against people of color exist in nursing faculty teaching in BSN programs in the United States? Research assumptions supporting this question include:

1. Unconscious, implicit bias exists in nursing faculty.
2. Implicit racial bias is associated with certain demographic criteria (e.g. age, years teaching nursing, geographic location, race, gender, size of university, etc.).

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Klisch, M. L. (2000). Retention Strategies for ESL Nursing Students. *The Journal of Multicultural Nursing and Health. 6*(1), 21-28.

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Section II – Procedure

1. Method

This study will be conducted within a descriptive correlational research design. Two tools will be used in this study: a demographic survey and the Implicit Association Test. The demographic survey (see attached) contains questions related to faculty gender, age, geographical location, and size and category (public/private) of the university. Other questions will include faculty position; years teaching, education level, and teaching specialty. The Implicit Association Test (IAT) is a computer-based tool managed and supported by Project Implicit located at Harvard University. Their support staff works with researchers to design and carry out research using the IAT. Project Implicit will send a link to the demographic survey and the IAT to this researcher. That link will be forwarded to potential participants in the invitation e-mail. The link for this study will remain active for approximately 6 weeks.

2. Participants

Participants will be recruited from a stratified convenience sample of nurse educators from specifically chosen colleges and universities around the country. Universities will be chosen on the basis of geographical location, student body size, and type of university. Educators will be selected from the chosen university's website. All participants will be over

18 years of age and not members of a vulnerable population. Participants will be informed that they may forward the study to other interested educators.

3. Procedure

All potential participants will be contacted by e-mail; hence they can participate in the study at a self-determined time and place. The entire group of potential participants will receive a reminder e-mail regarding the study two weeks after the initial invitation. A cover page explaining the purpose of the study will appear as the first page of the e-mail. Questions concerning participants' right to volunteer, procedures for safeguarding confidentiality, and descriptions of the nature of the activities for which they are being asked to volunteer will be detailed in the informed consent document (see attached) following the cover letter. The participant can save a copy of the informed consent by either downloading from the e-mail invitation or saving the e-mail. Agreement to the conditions of the study and desire to participate will be implied by the participant's clicking to the Implicit Association Test and demographic survey.

Participants have the right to full self-determination. They have the right to voluntarily decide to participate in the study. They can also decide at anytime to discontinue the study, without fear of penalty or repercussion, simply by exiting the IAT or survey. Data for that participant will be discarding from data analysis.

Completion time for the demographic survey and IAT will vary for each participant, but should take approximately 20 minutes. The risks of participating in this research study are minimal. Risks include the time needed to complete the test and survey. Any discomfort or anxiety experienced by the participant should be no more than the discomfort experienced in a classroom or community setting where sensitive subjects are being discussed. The fact that this study deals with issues of racial bias can be clearly outlined in the informed consent

because the nature of implicit attitude is such that it does not change as a result of the individual's awareness of it (Greenwald, et al., 1998).

The benefit of this study is that it will establish a baseline existence of racial bias in nursing faculty. Given that this is the first time the IAT will have been used in nursing research, future studies will be able to build on this data.

Section III – Disposition of Data

Anonymity for all participants will be assured to the greatest degree possible. There will be no identifying data attached to the demographic survey or the Implicit Association Test, nor will it be possible to electronically identify or trace participants. Neither the researcher nor Project Implicit employees will be able to identify the participants. Project Implicit also assures anonymity of participants. At the end of the study, Project Implicit will aggregate data from this cohort of participants with all respondents who have completed the Skin Tone IAT. An SPSS file with raw and analyzed data will be sent to this researcher and original data will be destroyed by Project Implicit. The SPSS file will be stored on the researcher's private work computer which is password protected and not accessible to others. The computer is also located in a locked office not available to others.

Section IV – Justification for Exemption

This study qualifies for exemption because the participants are adults over age 18 and are not known to be members of a vulnerable population. Data will be collected at a time and place determined by the participant (their own home or work environment, on their own computer). The data are not sensitive in nature and accidental disclosure would not place the participants at risk. Participants cannot be identified either directly or via identifiers linked to their survey responses.

Section V – Documentation

1. Informed Consent: See attached
2. Demographic Survey: See attached

3. Project Implicit Contract: See attached
4. Currently there is no funding source for this study.

APPENDIX C

IRB APPROVAL

UNIVERSITY of NORTHERN COLORADO
Institutional Review Board (IRB)

March 24, 2009

ADVISOR'S COPY

TO: Teresa McDevitt
School of Psychological Sciences

FROM: SPARC

RE: Exempt Review of *The Existence of Implicit Bias in Nursing Faculty*, submitted by Kathleen Fitzsimmons (Research Advisor: Faye Hummel)

The above proposal is being submitted to you for exemption review. When approved, return the proposal to Sherry May in SPARC.

I recommend approval.

Signature of Co-Chair 3-26-09 Date

The above referenced prospectus has been reviewed for compliance with HHS guidelines for ethical principles in human subjects research. The decision of the Institutional Review Board is that the project is exempt from further review.

IT IS THE ADVISOR'S RESPONSIBILITY TO NOTIFY THE STUDENT OF THIS STATUS.

Comments: See clarifications

25 Kepner Hall ~ Campus Box #143
Greeley, Colorado 80639
Ph: 970.351.1907 ~ Fax: 970.351.1934

APPENDIX D

IRB CHANGE

UNC INSTITUTIONAL REVIEW BOARD

Request for Change in Protocol

Date of Original IRB Approval: 3/26/09

Project Title: The Existence of Implicit Bias in Nursing Faculty

Lead Investigator	Name:	Kathleen Fitzsimmons
	Department:	Nursing
	Telephone:	425-486-1732
	Email:	fitzsk@spu.edu
Research Advisor (if applicable)	Name:	Faye Hummel
	Department:	Nursing
	Telephone:	970-351-1697
	Email:	faye.hummel@unco.edu

On a separate page, describe and provide justification for the changes being proposed. Be concise and specific in describing methodological changes that affect the experience of participants and/or relate to the risks/benefits of participation. Explain why these changes are necessary.

__x__ Yes __ __ No The proposed changes in protocol will necessitate changes in documents such as recruitment flyers, consent forms, debriefing forms, or other project-related documents.

__x__ Yes __ __ No If yes, copies of the revised documents with changes highlighted are attached to this request.

CERTIFICATION OF LEAD INVESTIGATOR
I certify that information contained in this request is complete and accurate.

Kathleen Fitzsimmons — 5/7/09

Signature of Lead Investigator — Date of Signature

CERTIFICATION OF RESEARCH ADVISOR (If Lead Investigator is a Student)
I certify that information contained in this request is complete and accurate.

Signature of Research Advisor — Date of Signature

Approved by:

Chairperson, Institutional Review Board — Date

Date Request Received by SPARC:

The study invitation e-mail has been edited to include language that clearly states that UNCO IRB approval has been obtained for this study. It also informs faculty participants that additional IRB approval from their institutions is not required per UNCO IRB policy. This change assures participants that their safety and confidentiality are protected through the IRB process.

E-mail Invitation: Additions/changes highlighted

Dear Nursing Colleague,

My name is Kathleen Fitzsimmons and I am a doctoral student at the University of Northern Colorado School of Nursing conducting research for my dissertation. As a fellow nurse educator, you have been selected to participate in this study because you teach in a baccalaureate nursing program in the United States. Your contact information was obtained from publically accessible sources. ~~Your contact information was obtained from the website or course catalog of the institution where you teach~~.

Institutional Review Board approval for this study has been obtained from the University of Northern Colorado. According to University of Northern Colorado IRB policy, additional approval from your college or university is not required in order for you to participate in this study.

This is not your typical Survey Monkey questionnaire. Using the Implicit Association Test (a web-based tool), words and pictures are used to study reactions toward various groups of people. Although millions of people have completed the IAT online and in the context of research in a variety of disciplines, this is the first time this tool has been used in nursing research. I think you will find the process interesting and enlightening.
This study contains two elements, the Implicit Association Test and a demographic survey, and should take about 10-15 minutes to complete. By clicking the link below, you will find statements that inform you of your rights as a participant. Once you review this information, you can proceed to the study.

Link to be pasted here.

I recognize and appreciate the value of your time. **If you know of other baccalaureate nurse educators who would be interested in completing this study, please feel free to forward this email to them.**
If you have any questions about the study or problems accessing or completing it, please send an email to fitzsk@spu.edu.

Thank you for your participation. I hope you have fun!
Kathleen Fitzsimmons, RN, MEd., PhDc
Doctoral Candidate University of Northern Colorado School of Nursing

APPENDIX E

PROJECT IMPLICIT CONTRACT

Project Implicit, Inc.
Custom Test Agreement

This agreement (the "Agreement") is entered into as of April 1, 2009 by and among Project Implicit, Inc., a Massachusetts nonprofit corporation ("Project Implicit"), and Dr. Kathy Fitzsimmons Department of Nursing, Seattle-Pacific University (the "Researcher").

Background

Project Implicit has been founded by the creators of a web-based interface for developing, administering and managing web-based study protocols. The Researcher has requested that Project Implicit continue to host custom Implicit Association Tests originally built for the Researcher by the University of Virginia for use in behavioral research.

1. The Tests

A. Confirmation

Based on information provided by the Researcher, and subject to the terms of this Agreement, Project Implicit will create a web study following specifications provided by the Researcher. On or before April 1, 2009 Project Implicit will permit mutually agreed upon personnel selected by the Researcher to access the Tests via a web site hosted by Project Implicit (the "Testing Site") solely for the purpose of confirming that the Tests are consistent with the Researcher's research goals.

B. Participant Access

Subject to the terms of this Agreement, after the Researcher has confirmed to its reasonable satisfaction that web study are consistent with their research goals, Project Implicit will create a link on the production server "implicit.harvard.edu" for study participants (recruited by the Researcher). This web link will be active from April 1, 2009 to July 31, 2009. Renewal of contract terms to extend this period can occur with a renegotiated agreement that is approved by Project Implicit and the Researchers.

2. The Data

Project Implicit will provide the Researcher access to the data using a password protected web account. Data will be in a a tab-delimited text format. Data may contain information that will enable the Researcher to identify the participants, and as such, it is the responsibility of the Researcher to protect this information in a manner prescribed by Federal law and Institutional Review Board regulations. The Researcher may use this Data for whatever purposes it desires.

3. Consulting Services

Upon request by the Researcher from time to time and subject to Project Implicit's other commitments and priorities, Project Implicit may agree to provide the Researcher with consulting services in connection with the Project Implicit Technology or data analysis.

4. Compensation

A. Test and Site Maintenance Fee
In consideration for Project Implicit's services described in Sections 1 and 2 above, the Researcher will pay Project Implicit a "Test and Site Maintenance Fee" of $3000. This amount will be payable upon execution of this Agreement.

B. Consulting Fees
In consideration for any consulting services provided by Project Implicit that goes beyond the work required for test and site development and delivery of the Data, the Researcher shall pay Project Implicit's standard hourly rates of $350 per hour for time from a Principal Investigator, $150/hour for a post-doctoral associate or developer/technician, $125/hour for a graduate student, or $75/hour for a research assistant or administrative personnel. In the event that a mutually agreed upon Statement of Work provides for the provision of specific services for a lower rate than is otherwise provided for in this paragraph, then the terms of the Statement of Work shall govern with respect to such services.

C. Payment Terms
All payments due to Project Implicit hereunder will be paid in United States dollars. The Researcher may not withhold any amounts due hereunder. Project Implicit reserves the right to (i) deny the Researcher and/or the Participants access to the Testing Site, (ii) discontinue the provision of any support or services hereunder and/or (iii) assert appropriate liens, until all amounts due are paid in full. Project Implicit further reserves the right to charge the Researcher interest on any unpaid balance at the rate of one and one-half percent (1.5%) per month, or at the maximum rate permitted by law if such maximum rate is less than one and one-half percent (1.5%) per month. The Researcher agrees to pay any costs of collection (including reasonable legal fees) incurred in collecting any amounts due hereunder.

D. Taxes
In addition to any other amounts due hereunder, the Researcher shall pay all foreign, federal, state, municipal and other governmental excise, sales, use, property, customs, value added, gross receipts and other taxes, fees and duties of any nature now in force or enacted in the future that are assessed upon or with respect to any sums paid or owing or any rights, materials or services provided hereunder, or otherwise arising in connection with this Agreement, but excluding United States taxes based on Project Implicit's net income. If the Researcher is required by the law of any country to make any deduction, or withhold from any

sum payable to Project Implicit by the Researcher hereunder, then the sum payable by the Researcher upon which the deduction or withholding is based shall be increased to the extent necessary to ensure that, after such deduction or withholding, Project Implicit receives and retains, free from liability for such deduction or withholding, a net amount equal to the amount Project Implicit would have received and retained in the absence of such required deduction or withholding.

5. Confidentiality

A. Confidential Information and Materials.
In connection with the matters described in the Agreement, each party (the "Disclosing Party") may share certain confidential information and materials (the "Confidential Information") with the other party (the "Recipient"). For purposes of the Agreement, the Confidential Information of Project Implicit shall include, but not be limited to, any technical information regarding the Tests or Testing Site, and any pricing information provided by Project Implicit or contained herein.

B. Restrictions on Use and Reproduction.
Recipient agrees to keep confidential any Confidential Information, and further agrees that it will not, without the Disclosing Party's prior written permission, (a) use any Confidential Information for any purpose other than performance under the Agreement, or (b) reproduce any Confidential Information. These obligations shall apply regardless of whether any of the information shall have been furnished orally or in writing or gathered by inspection and regardless of whether the information has been specifically identified as "confidential."

C. Disclosure to Representatives.
Recipient may disclose any Confidential Information to any Representatives who need to know such information for the purpose of evaluating or implementing the Agreement. ("Representatives" means any of Recipient's directors, officers, partners, employees, agents, representatives, including, without limitation, financial advisors, counsel, persons contemplating providing financing for any transaction, accountants, experts, and consultants.) Prior to disclosing any of the Confidential Information to any Representative, however, Recipient shall inform the Representative of the confidential nature of such information and undertake reasonable efforts to cause the Representative to treat such information on a confidential basis. Recipient shall be responsible for the breach of the Agreement by its Representatives, and shall take all reasonable measures, including but not limited to court proceedings, to restrain its Representatives from unauthorized disclosure of any of the Confidential Information.

D. Exceptions.
Notwithstanding the foregoing, Recipient shall have no obligation with respect to any portion of such Confidential Information which:

(a) is or shall have been known to Recipient before planning of this project commenced, as evidenced by dated writings;
(b) is disclosed to Recipient in good faith without restriction on further disclosure by a third party who has a right to make such disclosure; or
(c) is or shall have become generally known to the industry through no fault of Recipient.

E. Return of Confidential Information.
Upon the Disclosing Party's request, Recipient shall promptly deliver to the Disclosing Party all written Confidential Information and any other written materials to the extent they contain or reflect any Confidential Information, and Recipient will not retain any copies, extracts or other reproductions in whole or in part of such written materials. Upon the Disclosing Party's request, all documents, memoranda, notes, and other writings whatsoever prepared by Recipient or Recipient's Representatives including any of the Confidential Information shall be destroyed to the extent that they include any of the Confidential Information, and such destruction shall be certified in writing to the Disclosing Party by an authorized officer supervising such destruction.

6. Miscellaneous

A. Ownership of Intellectual Property
Project Implicit shall retain the entire right, title and interest in and to any technology utilized on the Testing Site or in the Tests, whether developed prior to, during or after the Testing Period, including without limitation the Tests and the Data themselves. The entire right and title in all inventions, discoveries, processes, methods, compositions, formulae, techniques, information and data, whether or not related to the Tests, the Testing Site, or any services performed hereunder, whether or not patentable, and any patent applications or patents based thereon, developed by Project Implicit in the performance of the activities contemplated by the Agreement, whether or not developed specifically for the Tests or the Testing Site or with input from the Researcher's employees or agents, shall be owned by Project Implicit. Project Implicit retains ownership of the Data only for the purpose of providing contracted service in association with this project. Project Implicit will handle the data confidentially and will not distribute the data to anyone other than the Researcher. The Researcher retains all rights of publication and dissemination of the collected Data for educational and research purposes including journal articles, dissertations, and related media. The Researcher has no reporting responsibilities to Project Implicit regarding educational and research use of the Data.

B. Disclaimer of Warranty; Limitation of Liability
THE SERVICES AND TECHNOLOGIES PROVIDED BY PROJECT IMPLICIT THEREUNDER (INCLUDING WITHOUT LIMITATION THE TESTING SITE, THE TESTS, AND ANY DATA PROVIDED HEREUNDER)

ARE PROVIDED "AS IS" AND PROJECT IMPLICIT DOES NOT PROVIDE ANY WARRANTY WHATSOEVER WITH RESPECT TO THEIR PERFORMANCE, INCLUDING THEIR SAFETY, QUALITY, EFFECTIVENESS, COMMERCIAL VIABILITY OR MERCHANTABILITY. THE RESEARCHER ASSUMES ALL RESPONSIBILITY AND LIABILITY IN THIS REGARD. Project Implicit's liability, whether in contract, tort, or otherwise, arising out of or in connection with the Tests, the Data, or otherwise in connection with this Agreement shall not exceed the amounts actually paid to Project Implicit by the Researcher hereunder.

C. Indemnification
Each party hereto (the "Indemnitor") hereby agrees to indemnify, defend and hold the other party (the "Indemnitee") and its officers, directors, employees and agents harmless from and against any and all losses, costs, expenses (including reasonable outside attorneys' fees), claims, suits and liabilities by third parties (collectively, "Claims") that Indemnitee may suffer or incur, that arise, result from, or relate in any way to (i) Indemnitor's infringement of any intellectual property or other rights of a third party; (ii) Indemnitor's violation of any laws or regulation of any governmental, regulatory or judicial authority arising from its performance of its obligations under this Agreement; or (iii) the actual or alleged gross negligence or willful misconduct of Indemnitor or its employees or other agents in connection with this Agreement. In addition, the
Researcher agrees to indemnify, defend and hold Project Implicit and its officers, directors, employees and agents harmless from and against any and all Claims arising out of the Researcher's interactions with Participants or any use of their personal information by the Researcher.

D. Assignment
This agreement is personal to the Researcher and may not be assigned or delegated by the Researcher, in whole or in part, without the prior written consent of Project Implicit. This agreement shall be binding upon and inure to the benefit of Project Implicit and its successors and assigns.

E. Enforcement
This Agreement shall be governed by Massachusetts law and controlling United States federal law, without regard to the choice or conflicts of law provisions of any jurisdiction. Any disputes, actions, claims or causes of action arising out of or in connection with this Agreement shall be subject to, and the Researcher consents to, the exclusive jurisdiction of the state and federal courts located in Boston, Massachusetts.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

Dr. Kathy Fitzsimmons Project Implicit, Inc.

By: _____
Name: Kathy Fitzsimmons
Title: Assistant Professor
Address: Seattle Pacific University
3307 Third Ave. West, Suite 106
Seattle, WA 98119
Tel: 206-281-2964
Email: fitzsk@spu.edu

By: _____
Name: Anthony Greenwald
Title: President
Address: Project Implicit, Inc.
624 34th Ave E
Seattle, WA 98112-4306
Tel: (206) 324-7211
Email: agg@u.washington.edu

APPENDIX F

INFORMED CONSENT

UNIVERSITY of
NORTHERN COLORADO

Informed Consent for Participation in Research

University of Northern Colorado

Project Title: The Existence of Implicit Bias in Nursing Faculty

Lead Investigator: Kathleen Fitzsimmons, RN, MEd., PhD(c), Department of Nursing

Phone number: 425-486-1732 E-mail: fitzsk@spu.edu

Research Advisor: Faye Hummel, RN, PhD, Department of Nursing

Phone number: 970-351-1697 E-mail: faye.hummel@unco.edu

Dear Professor,

My name is Kathleen Fitzsimmons and I am a doctoral candidate at the University of Northern Colorado. You are being invited to participate in a dissertation study assessing conscious and unconscious preferences for certain types of people. Participation will require only about 15 minutes. This study is built on, and hopefully will support, the continuing inquiry into the challenges faced by nursing students of color. The need for this kind of information is especially important as nursing strives to attract and support more under-represented students. You have been chosen as a participant in this study because you teach in a baccalaureate nursing program in the United States. Your contact information was obtained from the website or course catalog of the institution where you teach.

Description of the Study:

This study contains an on-line program that requires the ability to view the computer screen and discriminate between different pictures and words. A demographic survey is also included. For best results, close other distracting programs on your machine, minimize noise distraction in the area, and make sure that you have up to 15 minutes to spare. The study will open in a pop-up window. Further instructions will be provided when the first screen is visible. Feedback on your responses will be provided at the end of the study.

Privacy:

Study data will be managed and protected by Project Implicit. Project Implicit uses the same secure hypertext transfer protocol (HTTPS), used by banks and other commercial websites to transfer credit card information in an encrypted format. This provides strong security for data transfer to and from the website. Research data is associated with an anonymous user number and stored separately from email addresses and demographic information. Email addresses are never directly connected to any of the research data ensuring the privacy of individual data. Your participation in this project is completely voluntary. You may choose not to respond to any question. Even if you begin the survey, you can discontinue at any time. Your decision to participate (or refusal to participate) will have no impact on your status at your college or university. You may stop at anytime by closing the study window. Participating in this survey involves minimal risk (no more risk than one might experience in daily life). The cost of this study is limited to the time involved in completing the study.

Having read the above and having had an opportunity to ask any questions by virtue of the contact information provided, please click the link below indicating that you have read the informed consent and agree to participate in this research. You may make a copy of this form for future reference. The University

of Northern Colorado IRB Board has approved this project. If you have any concerns about your selection or treatment as a research participant, please contact the Sponsored Programs and Academic Research Center, Kepner Hall, University of Northern Colorado , Greeley, CO 80639; 970-351-1907.

Sincerely,

Kathleen Fitzsimmons, RN, MEd, PhD(c)
Doctoral Candidate
University of Northern Colorado

APPENDIX G

DEMOGRAPHIC SURVEY QUESTIONS

Demographic Survey Questions

Personal:

Gender

Age

Ethnicity: Latino/Hispanic, Not Latino or Hispanic, would rather not say

Race: African American, Asian/Pacific Islander, Native American/Native Alaskan, White, Latino/Hispanic other, would rather not say

Country of primary citizenship: Drop-down menu with all countries

Current zip code

Zip code where you have lived most of your life

Professional:

<u>The following questions apply to your current work environment.</u>

Student enrollment in the college or university where you work

<1,000

1,000-3,000

3,000-5,000

5,000-10,000

10,000-15,000

15,000-20,000

20,000+

Is your university public or private?

Additional questions:

What is your highest level of education?

BSN, Masters, Doctoral

How long have you been a nurse educator?

What is your specialty area?

Do you have any additional certifications? Drop-down menu with choices

APPENDIX H

EXPLICIT QUESTIONNAIRE

Explicit Questionnaire

1. Which statement best describes you? (Choices—Circle your choice)

7 = I strongly prefer Dark skinned people to Light skinned people

6 = I moderately prefer Dark skinned people to Light skinned people

5 = I slightly prefer Dark skinned people to Light skinned people

4 = I like Dark skinned people and Light skinned people equally

3 = I slightly prefer Light skinned people to Dark skinned people

2 = I moderately prefer Light skinned people to Dark skinned people

1 = I strongly prefer Light skinned people to Dark skinned people

2. Please rate how warm or cold you feel toward the following groups.

LIGHT SKINNED PEOPLE (Choices)

Very Warm					Neutral				Very Cold	
10	9	8	7	6	5	4	3	2	1	0

3. Please rate how warm or cold you feel toward the following groups.

DARK SKINNED PEOPLE (Choices)

Very Warm					Neutral				Very Cold	
10	9	8	7	6	5	4	3	2	1	0

APPENDIX I

E-MAIL RECRUITMENT LETTER

Dear Nursing Colleague,

My name is Kathleen Fitzsimmons and I am a doctoral student at the University of Northern Colorado School of Nursing conducting research for my dissertation. As a fellow nurse educator, you have been selected to participate in this study because you teach in a baccalaureate nursing program in the United States. Your contact information was obtained from publically accessible sources.

Institutional Review Board approval for this study has been obtained from the University of Northern Colorado. According to University of Northern Colorado IRB policy, additional approval from your college or university is not required in order for you to participate in this study.

This is not your typical Survey Monkey questionnaire. Using the Implicit Association Test (a web-based tool), words and pictures are used to study reactions toward various groups of people. Although millions of people have completed the IAT online and in the context of research in a variety of disciplines, this is the first time this tool has been used in nursing research. I think you will find the process interesting and enlightening.

This study contains two elements, the Implicit Association Test and a demographic survey, and should take about 10-15 minutes to complete. By clicking the link below, you will find statements that inform you of your rights as a participant. Once you review this information, you can proceed to the study.

Link to be pasted here.
I recognize and appreciate the value of your time. If you know of other baccalaureate nurse educators who would be interested in completing this study, please feel free to forward this email to them.

If you have any questions about the study or problems accessing or completing it, please send an email to fitzsk@spu.edu.

Thank you for your participation. I hope you have fun!

Kathleen Fitzsimmons, RN, MEd., PhDc
Doctoral Candidate
University of Northern Colorado School of Nursing

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