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# The Relationship of Nursing Career Perception Congruence and Perceived Social Support on Hispanic Middle School Female Nursing Career Choice

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THE RELATIONSHIP OF NURSING CAREER PERCEPTION CONGRUENCE AND  
PERCEIVED SOCIAL SUPPORT ON HISPANIC MIDDLE SCHOOL FEMALE  
NURSING CAREER CHOICE

by

KAREN VICINO BOURGEOIS

A dissertation submitted to the Graduate Faculty in Nursing in partial fulfillment of the requirements for the degree Doctor of Philosophy, The City University of New York

2014

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This manuscript has been read and accepted for the  
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**Abstract**

The Relationship of Nursing Career Perception Congruence and Perceived Social Support on  
Hispanic Middle School Female Nursing Career Choice

by

Karen Vicino Bourgeois

Advisor, Professor Keville Frederickson

The purpose of this study was to examine the relationship of nursing career perception congruence and perceived social support on Hispanic middle school females' nursing career choice. A non-experimental descriptive, cross sectional design examined the relationship in a convenience sample of 200 Hispanic middle school females from the New York tri-state area. Instruments used to measure nursing career choice, nursing career perception congruence, and perceived social support, were: (1) the *Nursing Career Choice Questionnaire (NCC)*; (2) *Attitudes, Values, and Beliefs Scale (AVBS)*; and (3) the *Child and Adolescent Social Support Scale (CASSS)*. Multinomial logistic regression analyses indicated support for the relationship between all variables. There was a positive significant relationship between nursing career choice and nursing career perception congruence and a positive significant relationship between perceived social support and nursing career choice. The conceptual framework of Lent, Brown and Hackett's Social Cognitive Career Theory revealed that nursing career perception congruence and social support is needed to promote nursing career choice. Nursing career choice, nursing career perception congruence and perceived social support are environmental factors that influence the nursing career choice of Hispanic middle school females.

**Keywords:** nursing career choice nursing career perception congruence, perceived social support, Hispanic females

**Dedication**

This dissertation is dedicated to my mentor, my best friend, and the most amazing woman I know, my mother Carol Vicino.

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## TABLE OF CONTENTS

ABSTRACT .....	iv
ACKNOWLEDGMENTS .....	vi
LIST OF TABLES .....	xi
CHAPTER 1: INTRODUCTION .....	1
Background .....	1
Statement of Research Problem .....	3
Definitions .....	4
Delimitations .....	5
Conceptual Framework .....	7
Research Questions .....	9
Hypothesis .....	10
Need for Study .....	10
Summary .....	12
CHAPTER 2: LITERATURE REVIEW .....	13
Introduction .....	10
Nursing Career Choice .....	13
Factors Influencing Nursing Career .....	15
Summary of Nursing Career Choice.....	21
Nursing Career Perception Congruence .....	21
Ideal Career vs. Nursing Career .....	21
Summary of Nursing Career Perception Congruence .....	28
Perceived Social Support .....	28
Conceptual Framework .....	30
Summary .....	33

NURSING CAREER CHOICE	ix
CHAPTER 3: METHODOLOGY.....	35
Introduction.....	35
Research Design and Rationale .....	35
Population and Sample.....	35
Instrumentation.....	37
Participant Eligibility Screen.....	37
Demographics Sheet.....	37
Nursing Career Choice (NCC).....	38
Attitudes Values and Beliefs Scale (AVBS).....	38
Child and Adolescent Social Support Scale (CASSS).....	40
Data Collection Procedure .....	42
Protection of Human Subjects.....	45
Data Analysis.....	45
Research Question.....	46
Hypothesis.....	46
Summary .....	48
CHAPTER 4: RESULTS .....	48
Data Collection Results and Response Rates .....	49
Demographics.....	51
Assessment of the Reliability of the Study Instruments .....	52
Descriptive Statistics .....	54
Primary Data Analysis.....	57
Hypothesis Testing .....	58
Additional Analysis.....	64
Summary of Results .....	65

NURSING CAREER CHOICE	x
CHAPTER 5: DISCUSSION .....	66
Overview .....	66
Background.....	66
Summary of Study Findings .....	68
Nursing Career Choice.....	68
Nursing Career Perception Congruence and Nursing Career Choice.....	68
Perceived Social Support for Nursing as a Career and Choice of Nursing as a Career....	69
Perceived Social Support for Nursing as a Career as a Moderator.....	72
Additional Analysis.....	73
Theoretical Implications .....	74
Relationship between Nursing Career Perception Congruence, Perceived Social Support for Nursing as a Career and Nursing Career Choice.....	76
Summary .....	77
CHAPTER VI IMPLICATIONS AND RECOMMENDATIONS .....	78
Critique of the Study .....	80
Implications for Practice .....	81
Implications for Recruitment.....	81
Recommendations for Further Research .....	84
Conclusions .....	84
APPENDIX A: .....	86
REFERENCES .....	103

## LIST OF TABLES

Table 4.1 Frequency Distribution of Hispanic Females' Demographic Data.....	52
Table 4.2 Reliability Statistics .....	54
Table 4.3 Descriptive Statistics for Nursing Career Choice Scale .....	55
Table 4.4 Means, SD, Range & Scale .....	56
Table 4.5 Descriptive Statistics for CASSS by Source .....	56
Table 4.5 Descriptive Statistics for CASSS by Source .....	57
Table 4.7 Logistic Regression Analysis Summary for Predictors of Nursing Career Choice ....	60
Table 4.8 Logistic Regression Analysis Summary for Sources of Social Support .....	.61
Table 4.9 Correlation of Nursing Career Congruence and Importance of Social Support by Source .....	62
Table 4.10 Regression Statistics for Predictors and Interaction on Nursing Career Choice.....	63
Table 4.11 Logistic Regression Statistics for Friends Support and Interaction with Career Congruence .....	64
Table 4.12 Relationship of Nursing Friend/Relative and Nursing Career Choice .....	65

## **Chapter I**

### **Introduction**

People of all cultures are more likely to seek services and follow health care advice from providers that look and speak as they do (Institute of Medicine [IOM], 2002, 739). The demographic characteristics of the nursing workforce should mirror the population at large to foster better interaction and communication (The American Association of Colleges of Nursing [AACN], 2010b). However, of the 3,063,163 licensed registered professional nurses (RNs) living and working in the United States (US), the 2008 National Sample Survey of Registered Nurses (NSSRN) clearly documents the lack of diversity in the nursing workforce, with 83.2 percent of nurses describing themselves as White, 5.4 percent Black/African American, 3.6 percent as Hispanic/Latino, 5.8 percent as Asian or Native Hawaiian/Pacific Islander, 0.3 percent as American Indian/Alaska Native, and 1.7 percent as multiracial (two or more races, non-Hispanic) (Health Resources and Services Administration [HRSA], 2010). Thus, there is a great disparity between the number of minority residents in the US and the number of minority nurses available to care for them (Institute of Medicine, [IOM] 2002; Buerhaus, Auerbach, and Staiger 2009). Moreover, although the US nursing workforce is slowly becoming more diverse, the number of minority RN's remains remarkably small compared to the number of minorities that would benefit from their care (National Research Council, 2011).

### **Background**

#### **Need to Recruit Minorities & Under-represented Groups into Nursing**

Amongst the Hispanic population, this disparity is especially marked. Hispanics make up 16.7 % of the total U.S. population, and are the fastest growing minority group in the US. Hispanic is used throughout this paper because it is the term used by the US Census. In fact, the

Hispanic population is projected to increase to more than 25 % of the US population by the year 2050 (U.S. Census Bureau, 2012). However, as noted, only 3.6 % of the US RN workforce is Hispanic, and despite the rapid population growth, there has been no dramatic increase in the percentage of Hispanic RN's in the last decade (NSSRN, 2008). Thus, without immediate attention to the recruitment of Hispanics to the nursing profession, the RN workforce of the future will resemble the Hispanic population even less than it does today.

Furthermore, though increased recruitment of Hispanics to nursing is important across all age groups, it is especially important to attract young Hispanics (Knight, Abdallah, Findeisen, Melillo, Dowling, 2011; Gilchrist & Rector, 2007; Hoke, 2006; NSSRN, 2008). This is because the age of the RN workforce has been rising over the past two decades (NSSRN, 2008).

Between 2004 and 2008, the average age of all licensed nurses rose from 46.8 to 47.0 years and that of employed nurses rose from 45.4 to 45.5 years. This aging trend has raised concerns that near-future RN retirements could substantially reduce the size of the US RN workforce at the same time that both the general and the elderly populations are increasing, and the demand for both health care and nursing services will be increasing across the nation (NSSRN, 2008).

### **Nursing Career Choice**

To recruit more young-Hispanics to a career in nursing we must pay attention to how and when young people make career choices. Career choice is a process which begins in elementary school; it is then that young people develop career interests (Matutina, 2008). That is, they develop perceptions of their ideal career in terms of their own abilities as well as what a career will afford them such as power, money, and type of work environment. During this time, they also develop perceptions of the characteristics of various careers and are likely to choose a career with characteristics that they perceive to be congruent with their perceptions of the ideal career

(Hoke, 2006). Thus, if a young Hispanic perceives that the ideal career will bring certain rewards (financial gains, power, social value, etc.) and they perceive that a nursing career affords these same rewards plus they will be able to do what nurses do, they have high career perception congruence related to nursing (May, Austin & Champion, 1988).

However, even if the young Hispanic has high nursing career perception congruence, unless they are supported in their decision, it is not likely that they will actually choose a nursing career. This is because social support for one's early career interests plays a substantial role in determining career choices (Buerhaus, Staiger, Auerbach, 2004; Flores and O'Brien, 2002; Grossman and Northrop, 1993). Thus, social support acts like a bridge from career perception congruence to career choice (Lent, Brown & Hackett, (2002). If both nursing career perception congruence and social support for nursing as a career are high, then one is more likely to choose a nursing career. This study will investigate the relations amongst nursing career perception congruence, perceived social support for nursing as a career, and nursing career choice in Hispanic middle school students.

### **Problem Statement**

What are the relations amongst perceptions of nursing as a career, perceived social support for nursing as a career, and nursing career choice amongst Hispanic middle school students?

### **Subproblems**

1. Is nursing career perception congruence, related to nursing career choice in Hispanic middle school students?
2. Is perceived support for nursing as a career related to nursing career choice in Hispanic middle school students?

## **Definition of Terms**

### **Registered Nurse (RN)**

A registered nurse (RN) is a nurse who has graduated from a nursing program at a college or university and has passed a national licensing exam to obtain a nursing license. A registered nurse's scope of practice is determined by the school and by the government responsible for health care in the region (NSSRN, 2008)

### **Nursing Career Choice (NCC)**

Nursing career choice is conceptually defined as an intention to engage in an activity (e.g., enroll as a nursing major) to effect a future outcome (e.g., have a nursing career) (Lent, Brown & Hackett, 1996). NCC will be operationally defined on a researcher developed Likert-type scale (1: highly unlikely to 5: highly likely) to choosing nursing as a college major.

### **Nursing Career Perception Congruence (NCPC)**

Nursing career perception congruence conceptually defined as the congruence of one's perceptions of the ideal career with their perceptions of a nursing career (May, Austin & Champion, 1988). NCPC will be operationally defined as the absolute difference score between perceptions of the ideal career and perceptions of a nursing career as calculated from the Ideal Career Scale (ICS) and Nursing Career Scale (NCS) (May, Austin & Champion, 1988).

### **Perceived Social Support for Nursing as a Career (PSSNC)**

Perceived Social Support for Nursing as a Career is defined as an individual's perceptions of general or specific supportive behaviors for a career in nursing from people in their social network which enhances their functioning. PSSNC will be operationally defined as the scores from the Child and Adolescent Social Support Scale (CASSS) (Malecki, Demaray & Elliott, 2004)

### **Delimitations**

To limit extraneous variance in nursing career perception congruence, this study's sample will be limited to Hispanic middle school students because this is when career perception begins in earnest (Cohen, Palumbo, Rambur, & Mongeon, 2004; Knight et al., 2011, Matutina, 2008, McQueen & Zimmerman, 2013). Middle school is an ideal time to introduce the idea of nursing as a career (Knight et al., 2011) and delaying the introduction of nursing as a career could potentially eliminate it as a possible career option (Hoke, 2006). Career theorists suggest that curiosity, fantasy, identification with workers, gender stereotyping, race, class, and social value, influence career perceptions during the middle school years (Ginzberg, 1952; Gottfredson, 1981; Super, 1990; Trice, Hughes, Odom & Woods, 1995). At this time, students become interested in career exploration activities (Magnuson & Starr, 2000; Super, 1990) which enhance self awareness and career knowledge and encourage development of perceptions and age-appropriate narrowing of choices. By the time youngsters reach high school they have ruled out certain careers and developed sex-stereotyped views of occupations (Hoke, 2006; (Knight et al., 2011).

To further limit extraneous nursing career perception congruence variance, the study sample will be limited to Hispanic middle school females because overall, female students were found to have more interest in a nursing career than males (Grossman, Arnold, Sullivan, Cameron, and Munro, 1989; Kikwilu, Mugonzibwa, Rugarabamu , Ntabaye, 2000;Law & Arthur, 2003, May et al., 1988). Furthermore, limiting the study sample to Hispanic middle school females will reduce extraneous variance in perceived social support for nursing. That is, although the numbers are growing, males are still a minority in nursing and may be discouraged from choosing nursing by the perception that it is "women's work" (Hemsley-Brown & Foskett, 1999; Romem & Anson, 2005; Zysbery & Berry, 2005).

This difference in female's and male's perceptions in nursing and perceived social support for nursing as a career is further influenced by the Hispanic culture (Flores & O'Brien, 2002). Hispanics have traditionally viewed females as submissive, chaste, and dependent and males as dominant, virile, and independent (Comas-Diaz, 1987). In fact, though more Hispanic females than Hispanic males go to college (National Center for Educational Statistics [NCES], 2007) only 56% of Hispanic females versus 76% of Hispanic males (Powell & Graves, 2003) are in the US workforce. The notion of women's work is very influential in the Hispanic culture and this will influence career perceptions and perceived social support for nursing.

Finally, to further reduce extraneous variance in career perceptions and perceived social support for all careers which require a college education, the study sample will be limited to Hispanic female middle school students attending Parochial school. This is because students in Parochial schools have an academic advantage over public school students and achieve at higher levels than their public school peers, even when controlling for socioeconomic status (Domanico, 2001; Scanlon, 2009). Moreover, Parochial schools effectively reduce and even eliminate the negative effect of social class on academic achievement (Greeley, 2002; Youniss, Convey, & McLellan, 2000). Parochial schools' environments make a difference by providing a stable learning place for children who often come from unstable families, homes, and neighborhoods (Greeley, 2002). A person or benefactor is paying tuition for the student which implies some social support (i.e. that someone wants the student to be at school learning; the student is not just in school because it is the law). These gains are particularly apparent in urban minority students, and students attending Parochial secondary schools are more likely to graduate from high school than similar students in public schools (Litton, Martin, Higareda, & Mendoza, 2010; National Parochial Educational Association, 2010; Neal, 2000).

### **Conceptual Framework**

The theoretical rationale for linking Nursing Career Choice (NCC), Nursing Career Perception Congruence (NCPC) and Perceived Social Support for Nursing as a Career (PSSNC) in Hispanic middle school females is derived from Lent, Brown, and Hackett's (1994) Social Cognitive Career Theory (SCCT). SCCT is derived primarily from Bandura's (1986) social cognitive theory and Krumboltz's (1979) social learning theory of career decision making and has been used to explain the career choice experiences of diverse populations including college students (Lent, Brown, Schmidt, Brenner, Lyons, & Triestman, 2003), minority students (Flores & O'Brien, 2002), international students (Lent, Brown, Nota, & Soresi, 2003), and battered women (Chronister & McWhirter, 2006). The SCCT was developed to explain the:

“processes through which (a) academic and career interests develop, (b) interests, in concert with other variables, promote career-relevant choices, and (c) people attain varying levels of performance and persistence in their educational and career pursuits” (Lent, Brown & Hackett 1996, p. 11).

Specifically, the present study focuses on process b: individuals' career perceptions and how these career perceptions are enhanced or constrained by other variables and thus result in career choice (Lent et al., 1994).

Career choice is one's intention, plan, or aspiration to engage in a particular career (Lent et al., 1994). The process through which one chooses a career involves exploring, planning, and decision-making activities from which career perceptions develop. These career perceptions are formed after practice, feedback, skill refinement, personal efficacy development, and expectation of satisfactory outcomes (Lent et al. 1994, 1996). That is, career perceptions develop through direct or indirect exposure to a variety of careers and the defining features of those careers. People tend to develop interest in careers that are compatible with their perceived abilities and their desired outcomes (Lent et al., 2002). For example, a person may develop an interest in a

nursing career based on their perception that they could do what it is they think a nurse does and would like to accrue the benefits they perceive come with being a nurse. However, Lent et al. (1994) asserted that career perceptions are not enough to totally influence career choices. Lent et al. (2002) linked perceptions to career choices only in the presence of contextual variables acting as moderators. Contextual variables are believed to indirectly influence career perception formation and the translation of career perceptions into career choice.

Using the propositions of SCCT, it is possible to view the phenomena of Hispanic middle-school females' decision to either choose or not choose nursing as a career. That is, career choice is a process resulting from career interests and contextual (moderating) variables. Lent, Brown and Hackett (1994) posit that career interests result from perceptions of one's own abilities (self efficacy) as well as the perceived rewards of particular careers (outcome expectations). Youngsters mentally "try on" different careers to judge the "fit" between their abilities and their expectations of what the ideal career will afford and what they see as the necessary abilities and rewards of a particular career. Lent et al.'s (1994) concept of career interest can be seen as a congruency between perceptions of the ideal career and a particular career or career perception congruence. May and colleagues (1988) propose that if one's perceptions of the characteristics of the ideal career are congruent with one's perceptions of nursing as a career then the individual is more likely to choose nursing as a career than if the characteristics of their ideal career were not congruent with perceived characteristics of a nursing career. In the present research context, career perception congruence is operationalized as nursing career perception congruence.

However, even if a youngster's perception of their ideal career is highly congruent with their perception of nursing as a career this is not enough to solely determine choice of nursing as

a career. Lent and colleagues (2002) asserted that contextual variables such as support for one's career interests moderate the relation between career interests and career choice. In Hispanic culture, allocentrism is the tendency to include others in their decision-making process and not place value on individual decision-making, and familismo is the strong attachment to the family (Marin and Marin, 1991). Hispanics place a high value on family for support (Keefe, Padilla, & Carlos, 1979; Marin & Marin, 1991). Flores and O'Brien (2002) asserted that parental support directly predicted career aspirations in Mexican American women. Thus, in the present research context, social support for one's interest in nursing as a career can be seen as the contextual variable moderating the relation between nursing career perception congruence and choice of nursing as a career. Social support will be operationalized as perceived social support for nursing as a career.

The theoretical underpinnings of the present study lead to the following propositions. High nursing career perception congruence in the presence of high perceived social support for nursing as a career will predict the likelihood of the Hispanic middle school female's choosing nursing as a career. However, if nursing career perception congruence is low or there is little perceived social support for a nursing career then the Hispanic middle school female will be less likely to choose a nursing career.

### **Research Questions**

1. Does nursing career perception congruence predict nursing career choice?
2. Does perceived social support for nursing as a career contribute to nursing career choice over and above what is contributed by nursing career perception congruence?
3. Does nursing career perception congruence in the presence of perceived social support for nursing as a career predict nursing career choice?

### **Hypotheses**

**Hypothesis 1:** Hispanic middle school females with increased nursing career perception congruence will be more likely to choose nursing as a career.

**Hypothesis 2:** Hispanic middle school females with increased perceived support for nursing as a career will contribute to nursing career choice over and above what is contributed by nursing career perception congruence.

**Hypothesis 3:** Nursing career perception congruence in the presence of perceived social support for nursing as a career will predict career choice in Hispanic middle school females.

Specifically, higher perceived social support increases the effect of nursing career perception congruence on nursing career choice.

### **Need for Study**

An investigation into career perception congruence, social support for this perception, and nursing career perception, in Hispanic middle school females is important for several reasons. First, data from this study will provide information concerning the perception of nursing as a career in Hispanic middle school females.

Much of the research that has been conducted regarding nursing students who are Hispanic focuses on their high school and college experiences (Bond, Gray, Baxley, Cason, Denke, & Moon, 2008; Gilliss, Powell, & Carter, 2010; Zalaya, Alpert, Xu, & McDonough, 2011). As noted, however, career perception begins long before high school (Hoke, 2006, McQueen & Zimmermsn, 2006, 2013; Knight et al., 2011), and information regarding Hispanic females attending middle school could help refocus recruitment efforts.

Second, data from this study will provide information concerning the congruence between the ideal career and nursing as a career in Hispanic middle school females. This data

could be used to improve strategic planning for culturally sensitive recruitment and retention efforts by counselors, higher education institutions, health care organizations, and other major corporations in their efforts to attract more Hispanic females to the nursing profession, health care arena, and workforce. The Institute of Medicine (IOM) identified that there would be many benefits if greater racial/ethnic diversity could be achieved in the health profession workforce (2002). These gains include better access to care for minority populations, greater reported satisfaction in the health care they receive, improvements in cultural competence among healthcare workers, and improvements in nursing education of all students when diversity is present).

Finally, in a recently published integrative literature review of the years from 1989 to 2009, Matutina, Newman and Jenkins (2010), presented a summary of research conducted on middle school students' perceptions of nursing as a future career choice and the instruments used to measure perceptions of nursing as a career choice. Only 30% of the 10 studies reviewed were conducted with middle school students, the prime age group to begin nursing recruitment. Also, 80% of the participants in these studies were white females, making generalization impossible, and only one study included a theoretical framework. This study addresses all of these concerns, using an age appropriate, culturally representative sample, and a strong theoretical framework which utilizes propositions from the prominent career development theory (Lent et al. 2002), in a nursing career specific context.

Hispanic middle school females are essential to the future of nursing. The nursing profession needs more diversity in its ranks. No other studies have explored the role nursing career perception congruence (NCPC) and perceived social support for nursing as career (PSSNC) has played on nursing career choice in Hispanic middle school females' (HMSF).

### **Summary**

Chapter 1 discusses the relationship of nursing career choice, and nursing career perception congruence of Hispanic middle school females and the Hispanic middle school females' perceived social support for nursing as a career from parents, teachers, classmates, friends and people in their school. Definitions of variables and delimitations for this study are defined and discussed. The conceptual framework is explained. Chapter 2 addresses a review of the literature of relevant theory and study variables. This study could provide additional scholarly knowledge about the relationships among these variables as well as provide new insight into nursing career choice in HMSF and their instrumental role in the future of nursing.

## Chapter 2

### Literature Review

Nursing career choice, nursing career perception congruence, and perceived social support for nursing as a career are the three key concepts within this dissertation. This chapter reviews and summarizes the literature and relevant research related to these concepts. An extensive literature review was conducted to identify studies on nursing career choice, nursing career perception congruence and perceived social support for nursing as a career. The review suggests that nursing career perception congruence and perceived social support for nursing as a career may influence Hispanic middle school females (HMSF's) nursing career choice.

The literature review process involved a search of computerized databases from January 1990 to December 2013. Databases utilized in the search included the following: ABI/Inform, EBSCO, ProQuest, PsycInfo, JSTOR, Google Scholar, Social Sciences Citation Index, ERIC and CINAHL. The search included the terms *nursing, career, Hispanic, perceived social support, barriers, and perceptions* with the keyword *choice*. A search of major journals as well as the reference lists of pertinent articles and dissertations on career choice was completed. Career choice for nursing as a career has been investigated in various groups; however, research focused specifically on the career choice in Hispanics and on the HMSF in particular, has been minimal.

### Nursing Career Choice

According to the tenets of Social Cognitive Career Theory (Lent, Brown & Hackett, 1994, 1996, 2002) youngsters go through a period of career exploration during which time they are actively engaged in determining the social value (money, prestige, an opportunity to help others, etc.) and demands (education, time commitment, working conditions, etc.) of various careers. At the same time, they weigh the perceived social value and demands of particular

careers against their perception of their own abilities and resources. If they perceive that career X will give them what they want and they are willing and able to do what it takes to become an X, then it is likely that they will choose that career. This portion of the literature review will focus on why nursing students chose nursing as a career and why many Hispanics do not choose nursing including factors which influence abilities and resources necessary to become a nurse.

As noted, career choice is heavily influenced by the perceived social value of a career. Social value can be material (money) or nonmaterial (opportunity to care/make a difference, power, prestige). According to Gottfredson (2005), children become aware that individual careers carry a social value around the ages of 9 - 13 years. They also become attuned to careers that are highly valued in their society. The social value of a career is determined in the home, in school, by peers, and by the community at large (Gottfredson, 1991). Helwig (2008) found that students aspired to career choices that were in the high social value range, as measured by classification in the US Department of Labor (DOT) (1991a). High social value careers were those categorized in the professional, technical, and managerial areas, and required high educational preparation.

In general, nursing in the US has high social value in the nonmaterial sense. In the annual national Gallup Poll that ranks professions for their honesty and ethical standards, nursing has been voted the most trusted profession in America for the past 11 years (Gallup, 1999-2013). Likewise, the National Harris poll (2009), listed nursing as one of the five most prestigious careers in the US. This may be because the social value of caring for others is the most frequent response given for selecting nursing as a career. In addition, the nonmaterial social values of intellectual application and scholastic and academic achievement, as well as the material social value of career security/opportunity, were cited as reasons for choosing a nursing career (Beck,

2000; Rheaume Woodside Gautreau, & Ditommaso, 2003; May, Austin, & Champion, 1988).

Utilizing grounded theory, Boughn and Lentini (1999) asked 16 female BS nursing students' ages 18-40 years at a US state college, why women choose a nursing career. The predominant theme that emerged was the desire to care for others. Similarly, Beck (2000) using Colaizzi's (1978) phenomenological method asked 22 beginning BS nursing students attending a large US state university to describe why they chose nursing. Again, the emergent theme was the desire to help and care for others.

The social value of caring also emerged in a quantitative study looking at the characteristics that attracted first semester nursing students ( $N = 495$ ) to choose nursing as a career in a convenience sample made up of 81.1% whites, 14.1 % blacks and 4.8 % others (Larsen, McGill, and Palmer, 2003). Participants were asked to complete a survey developed from literature on career decision making. The positive social values of care and concern for others were cited by 90.5% of respondents. In addition, social values of job security (81.6%), and variety of work settings (70.6%) influenced the choice of a nursing career.

Sand-Jecklin and Schaffer (2006) found similar results in a convenience sample ( $N = 85$ ) of BS nursing students at a US university. Students most frequently reported choosing nursing because of "wanting to help others/make a difference" (46 %). Other reasons included variety in nursing careers, job security/salary, and the perception that nursing was a challenging and rewarding career. The students who choose nursing do so overwhelmingly due to its perceived high nonmaterial social value (caring). Why then do so few Hispanics choose nursing?

### **Factors influencing Nursing Career Choice**

Because career choice is largely dependent on one's perceptions, social class plays an enormous role in the process. That is, one's social class will influence perceived availability of

financial and academic resources necessary for certain careers and will determine one's exposure to certain careers in terms of role models. In a study conducted by the Tomás Rivera Policy Institute (TRPI), Buchbinder (2007) investigated numerous barriers, to pursuing a nursing career, faced by Hispanic females. He discovered that family-related barriers, financial barriers, educational attainment barriers, socio-cultural barriers, and lack of role models, contributed heavily to Hispanic females' lack of presence in nursing. However, financial barriers (an indication of social class) were considered the main barrier to Hispanic females choosing nursing as a career. They are often led away from nursing due to the cost and length of training. In many Hispanic families, the potential nursing student was required or expected to work to help support the family. The additional restraint of nursing school places a burden on the family. Also, Buchbinder (2007) noted that very few Hispanic students/families apply for financial aid, or are aware of the attractive starting salary for RNs in the US and the high demand (plenty of jobs available) to the Hispanic nurse.

Social class also influences education and educational attainment was also a barrier to Hispanic females pursuing a nursing career (Buchbinder, 2007). In fact, Hispanic females are less likely to graduate from high school and complete college than are their non-Hispanic peers (American Association of University Women (AAUW), 2008). The high school graduation rate for Hispanic females (ages 25 to 29), was 67 % compared with whites (95%) and Blacks (88%). Of those Hispanic females who attend college, only 12% graduate with an Associate's degree, compared with black (14%) and white females (66%), and 8% graduate with a Bachelor's degree, and compared with black (11%) and white females (70%) (National Education Statistics [NES] 2010).

This lack of educational attainment by Hispanic females was the focus of Ojeda and

Flores' (2008) study which investigated the influence of perceived barriers on educational aspirations in a study of 186 Mexican American high school students (grades 10-12) in a Texas-Mexico border town. Overall, gender, generational level, parent's education level, and perceived educational barriers accounted for 18% of the variance in educational aspirations [ $F(5, 124) = 5.33, p < .0001$ ]. These factors are partly responsible for the low numbers of Hispanic females graduating from high school and even lower numbers continuing on to college, and limit the number of Hispanic females even eligible to choose a nursing career.

Furthermore, the barriers to becoming a nurse do not diminish once attending college. Hispanic females in California reported low emotional support during nursing school, which included family disdain for doing homework outside of school, not having time for outside employment, and not being able to perform other expected family obligations (Buchbinder 2007). Nearly 52% of Hispanics college students are the first generation in their family to attend college (NES, 2010). This creates difficulties due to a lack of understanding about the rigors of academic life (homework, studying, finals, papers), and how they effect and constrain the Hispanic females from participating in things like work, family life, and other responsibilities

In addition, to these family related, financial and educational attainment barriers Buchbinder (2007), cites socio cultural barriers. That is, despite years of reports, recruitment drives, and public image campaigns, nursing is often viewed by Hispanics as a low-skilled profession. Hispanic females, especially those with Mexican, Central, or South American ancestry, report they are often discouraged from choosing a career in nursing due to a negative perception of nursing that originates from their or their parents' home country. They and their parents are also aware of the US stereotype of nurses being overworked, burned out and unhappy. Their overall opinion of the nursing role is that of a handmaiden who takes orders

from doctors, changes sheets, and gives baths. This negative perception of nursing may prevent Hispanic females from even considering nursing as a career.

This is interesting in light of Huppertz's (2010) findings concerning the significance of social class on career choice. In this qualitative study with 39 participants, differences were observed between women who self-identified themselves as "working class" (lower social class) versus "middle class" (higher social class). While all participants identified the social value of caring as one of the reasons to choose a career identified as paid caring work (i.e., nursing, social work), only 33 % of the working class participants cited caring as their primary reason versus more than 50 % of the middle class participants. Working class participants were more likely to identify financial gains as their primary reason to choose paid caring work. For working class participants these careers appeared to provide upward mobility and stability.

In fact, nursing has been seen as a middle class career since 1854, when Florence Nightingale began recruiting middle-class women to work in the wards during the Crimean War. Prior to her reforms, nursing was a function of the religious or lower class domestic workers (MacDonald, 2010). Thus, middle class women who are content to stay within the middle class may choose nursing as a career based solely on its nonmaterial social value. However, working class women choose nursing for its material social value. With regards to Hispanic females then, if the middle class perceives that nursing is a lower class career and the lower class lacks the financial and educational resources, then it is no wonder that so few Hispanic females choose nursing. This then further complicates the final barrier cited by Buchbinder (2007), the lack of Hispanic role models in nursing.

According to SCCT (Brown & Lent, 1996; Lent et al., 1996; 2002) individuals learn, through observation of role models, the characteristics of different careers and the barriers

experienced by others in those careers, thus impacting career choice. Indeed, Quimby and DeSantis (2006) found that in a sample of predominately white female students ( $N = 368$ ) at a Mid Atlantic university those who had observed a successful role model in a specific career were more likely to report a preference for that career and believe they would be successful. The hierarchical multiple regression analyses ( $p < .0001$ ) indicated that role model influence was a small but unique predictor in most careers accounting for an additional 2% ( $p < .001$ ) to 4% ( $p < .0001$ ) of the variance in career choice.

In Hispanic populations it has been found that role models, especially mothers and other family members are significant in career choice (Cardoza, 1991; Flores & Obasi, 2005). Flores and Obasi (2005) studied role models and their importance in the career decision making process in Mexican American adolescents. They reported that 78% of students identified role models who were family members (mother most common). Students indicated their role models were a source of support and encouragement in their educational and career pursuits. Thus, role models are vital to career perception formation/career choice, and people seek role models who are similar to them in some easily quantifiable way, such as gender or ethnicity (Bandura, 1986; Hackett & Byars, 1996; Karunanayake & Nauta, 2004). Ensher and Murphy (1997) reported that the quality of the role model relationship was rated higher when people perceived themselves to be more similar to their role models ( $r = .77, p < .001$ ). Having a role model of the same ethnicity was related to higher ratings of career support.

Lack of a role model of the same ethnicity presents an obstacle for young Hispanic females. There are so few Hispanic nurses to serve as role models. Thus they do not have much opportunity to explore a career in nursing and several studies have investigated the influence of role models in choosing nursing as a career. Larsen et al.,(2003), found that having a nurse role

model (53.3 %) or having a family member or friend who was a nurse (65.3 %), influenced first year US nursing students' ( $N = 495$ ) decision to become a nurse. Likewise, Kersten, Bakewell, and Meyer (1991), found that contact with and support from nurses was the most influential factor in choosing a nursing career (39 %) in their sample of 752 nursing students. Interestingly, nursing is a female dominated career and Rivera, Chen, Flores, Blumberg, and Ponterotto (2007), in a sample of 131 Hispanic women (Dominican 29.8%, Puerto Rican 24.4, Ecuadorian 17.6%, Colombian 9.9%, Salvadorian 3.1%, Cuban 0.8%, and other Hispanic 14.5) found a small but statistically significant positive correlation between female-dominated career consideration and role model influence ( $r = .16, p < .05$ ).

In the last 30 years, the overall number of women choosing nursing as a career has decreased by 50 % (Buerhaus, Staiger, & Auerbach, 2009). Reasons for this decrease include the expansion of opportunities for young women in formerly male-dominated professions (e.g. medicine, law, and business), and the image of the nursing profession which is perceived to include heavy workloads that are physically demanding (Buerhaus, Donelan, Ulrich, Kirby, Norman, Dittus, 2005). Hispanic females face additional barriers to choosing nursing as a career including a lack of perceived social value for nursing, social class issues (e.g. lack of finances, educational attainment) and finally the lack of role models. Despite these barriers, some young Hispanic females still choose a nursing career (NSSRN, 2008). According to SCCT (Lent, Brown & Hackett, 1994) these Hispanic females likely perceived that there was a good match between what they wanted from a career (ideal career) and what a nursing career will afford them. In this study, this match is called Nursing Career Perception Congruence (NCPC).

### **Summary of Nursing Career Choice**

Few studies have measured the antecedents and consequences of career choice Hispanics let alone Hispanic middle school females. More studies have looked at the reasons for nursing career choice in a primarily Caucasian population of beginning nursing students and the lack of educational attainment of Hispanics overall. The lack of study of nursing career choice and Hispanics suggests that other variables may play a role in Hispanics nursing career choice.

### **Nursing Career Perception Congruence (NCPC)**

Notably, studies to date have focused on mean perceptions (i.e., in the full sample) rather than individual perceptions of the characteristics of an ideal career vs. a nursing career. Also these studies have been descriptive and not predictive in nature. That is, past investigators have looked at differences in students, parents, and teachers perceptions of the ideal career and a nursing career. The present study is unique in that it focuses on individual's congruence scores (i.e. difference scores between ideal career scores and nursing as a career scores, such that low numbers mean high congruence between participants' perception of the ideal career and a nursing career). This study also moves beyond description to use these congruence score as a variable to predict choice of nursing as a career. This portion of the literature review focuses on what is currently known about perceptions of the ideal career and perceptions of a nursing career in middle school and high school students as well as young adults.

### **Ideal career vs. nursing career**

In their seminal study, May and colleagues (1988) investigated 1,155 participants' perceptions of the ideal career and their perceptions of a nursing career using the Attitudes Values and Beliefs Scale, which is also used in the present study. The sample included students (grades 6-12), parents, school nurses, teachers/ counselors, and college students of both genders

and was 86.69% white, 7.5% black, 3.5% Hispanic, and 1.3% other. The Attitudes, Values and Beliefs Scale consists of two separate subscales: Ideal Career Perceptions and Nursing Career Perceptions. First, participants are asked to rate (1-5) their agreement (strongly disagree to strongly agree) with 17 items describing characteristics of their ideal career by responding to the statement “it will be important to my career that I...” (e.g., always have a job, care for people, work very hard). On the next page, participants are asked to rate their perceptions of a nursing career on a parallel scale. Specifically, they are asked to circle the answer (strongly disagree to strongly agree) “that best describes how you feel about nurses...” (e.g., nurses will always have jobs, nurses are caring people, and nurses work very hard). Content validity by a panel of experts and construct validity via factor analysis has been established. Internal consistency reliability for both the ideal ( $\alpha = .84$ ) and the nursing career scales ( $\alpha = .81$ ) are adequate.

A paired-samples t-test compared the mean perceptions of the ideal career to a nursing career in the school age student subsample ( $n = 330$ ) of coed students in grades 6-12. Results revealed that 6 of the 17 characteristics: use my brain a lot, am a leader; work very hard, made good grades; go to college, and care for people exhibited Nursing Career Perception Congruence (NCPC) or characteristics that were considered intrinsic to both the ideal career and a nursing career. That is, there were no statistically significant differences in the overall perceptions of the ideal career and a nursing career. Also, the high means showed that students wanted to use their brains, be leaders, work very hard, get good grades, go to college and care for people and they felt that nursing would afford them these opportunities.

However, the results also revealed that 8 of the 17 characteristics: make decisions for themselves, make a lot of money, work in a safe place, always have a job, have respect, am

appreciated, be very powerful, and made good grades did not exhibit NCPC (i.e. essential characteristics to both the ideal career and a nursing career. That is, there were statistically significant differences (all at  $p = .0001$ ) in the overall perceptions of the ideal career and a nursing career. This indicated that students perceived the ideal career would afford them more of the aforementioned characteristics than a nursing career could. Finally, students perceived that a nursing career would afford them more ( $p = .0001$ ), than they would ideally like of the following 3 characteristics work very hard, work with my hands a lot, and work with high technology a lot.

Cohen, Palumbo, Rambur, and Mongeon (2004) partially replicated the May and colleagues' (1988) study with a convenience sample of 301 coed middle school students' ages 9 to 15 years. They eliminated the question regarding ethnic background to assure confidentiality due to the small number of ethnic minorities in this sample. Notably, there was even less NCPC found in this study, with only 5 rather than 6 of the 17 perceptions being congruent (NCPC): know a lot, use my brain a lot, am appreciated, am powerful, and am a leader. Only 7 of the 17 perceptions were statistically significant (at  $p = .01$  except needing college degree  $p = .03$ ) that the ideal career would contain more of the following characteristics than a nursing career could (no NCPC): make decisions for themselves); make a lot of money always have a job, get respect, work in a safe place, make good grades, and go to college. Finally, students perceived that a nursing career would afford them more ( $p = .0001$ ), than they would ideally like of the following 5 characteristics be very busy, work with my hands a lot, work with high technology a lot, care for people, work very hard.

Similar to the May and colleagues study, students perceived that both the ideal career and a nursing career would allow them to use my brain a lot, and be a leader (NCPC). Five of the

perceptions of the ideal career (make decisions for themselves, make a lot of money, work in a safe place, always have a job, and have respect) reported in the May and colleagues (1998) study were replicated in this study. Finally, three of the perceptions of a nursing career, be very busy, works with hands a lot and work with high technology, found in the May and colleagues (1998) study were also identified in this study. So, in the sixteen year span between these studies, the perception of nursing as a hands-on profession involving hard or busy work and utilizes a great deal of technology, has not changed.

Interestingly, power and leadership ranked as the least desired of the chosen characteristics of both the ideal and nursing careers in this study as well as the May et al. study (1998). This study was important as it was one of the first to explore the important perceptions of middle school students, the key group for recruitment, about the ideal career and a nursing career. However, this study lacks an ethnically and geographically diverse population that is also lacking in the current population of nurses today.

Degazon and Shaw (2007) investigated perceptions of an ideal career and a nursing career using the May et.al (1988) tool in an ethnically diverse sample ( $N = 114$ ) of urban co-ed public high school students. The largely Hispanic (49.1%), sample included: Asians (21.1%), African-Americans (21.1%), Whites (6.1%), and Others (2.6%). A Wilcoxon sign test was conducted to evaluate whether the participants perceptions of an ideal career and their perceptions of a nursing career differed ( $Z = -5.91, p = .001$ ). The results ( $p = .001$ ) indicated that mean of the ranks for the ideal career was significantly higher (79.5), while the mean of the ranks for a nursing career (74). Thus, a nursing career did not meet their perceptions of an ideal career. This would be considered low NCPC.

Even though the overall mean results indicated that a nursing career did not meet

participants' perceptions of the ideal career, there were individual career characteristics that were perceived to be equally available in both their ideal career and a nursing career (NCPC). The mean scores for: care for people and work very hard were perceived equally desirable characteristics in both the ideal career and a nursing career (NCPC). Participants perceived the ideal career could offer them more of the following job characteristics than a nursing career could ( $p < .01$ ) in 13 of the 17 characteristics (make decisions for themselves, always have a job, have respect, work in a safe place, make a lot of money, am appreciated, have respect, go to college, am a leader, make good grades, use my brain, know a lot, am very powerful, and work with high technology. Finally, students perceived that a nursing career would afford them more ( $p = .0001$ ), than they would ideally like of the following 2 characteristics, work with my hands a lot and be very busy.

Interestingly in past studies, May and colleagues (1989) identified NCPC with 6 of the 17 characteristics, and Cohen and colleagues (2004) identified 5 characteristics that were significant for NCPC. Reiskin & Hausser (1991), the only other study done with a similar population to Degazon and Shaw (2007), identified no characteristics that exhibited NCPC. The Degazon and Shaw (2007) study revealed NCPC in 2 characteristics, care for people and work very hard. So, even though this study revealed less NCPC than the May and colleagues (1989) and Cohen and colleagues (2004) studies, it was a significant finding in a population that when previously studied, exhibited no NCPC.

Although overall, a nursing career was perceived to have less than what these students wanted in their ideal career, it was interesting to see that these participants wanted to care for people and work very hard. These results are consistent with findings that caring is important to members of Generation Y, the next generation of nurses. That is, Generation Y (born late 70s to

early 2000s) is looking for meaning in jobs that benefit the community at large (Pew Commission, 2006, Tulgen & Martin, 2001). In earlier studies utilizing the same instrument (May et al., 1998; Cohen et al., 2004) students perceived that caring and working hard were undesirable attributes of a nursing career and overall, they ideally wanted less of this in their perceived ideal career.

In another study getting some similar results to the May & colleagues (1998) study, Palumbo, Rambur, McIntosh, and Naud (2008) looked at mean differences between the ideal career and a nursing career in 117 young adults aged 18 to 24 in the northeast US. The results indicated care for people, use their brain a lot, have a lot of power, and work in a safe place were equally desirable components of both the ideal career and a nursing career (NCPC). However, an ideal career was perceived to provide ( $p < .001$ ) more respect, make decisions for myself, am appreciated, and make a lot of money than a nursing career, and a nursing career was perceived to entail more work with hands a lot, and be very busy (statistics not reported) than the participants desired in the ideal career.

In comparison to the May and colleagues (1998) study in which 6 characteristics exhibited NCPC, only 2 of those characteristics, care for people and use my brain a lot were replicated in this study. For the ideal career, 4 characteristics found in the May and colleagues (1998) study were replicated in this study (have respect, make decisions for myself, am appreciated, and make a lot of money). Palumbo and colleagues, identified work with hands a lot, and be very busy to be characteristics of a nursing career whereas May and colleagues (1998) study also found work with high technology to be a significant characteristic of a nursing career. So, in the ten year span between the May and colleagues (1998) study and the Palumbo and colleagues (2008) study, the perception of nursing as a hands-on profession involving busy work

had not changed, but the perception that nurses are powerful and work in a safe place was taking hold.

Finally, in another study using the May et al., (1988) instrument, Tomey, Schwier, Marticke, and Austin (1996) looked at 347 co-ed sophomore high school students. Notably the students perceived felt that the ideal career and a nursing career were congruent (NCPC) in acquiring and using knowledge, leadership opportunities, and needing good grades. Both groups felt that the ideal career would provide them more am appreciated, make a lot of money, work in a safe place, and am very powerful than a nursing career could. They also perceived that a nursing career entailed too much care for people, work very hard, work with my hands a lot, be very busy, and work with high technology.

Many studies have attempted to answer the question why individuals choose nursing as a career. However, very few studies have looked at that question from a minority perspective, let alone a Hispanic perspective. The tenets of SCCT (Lent, Brown & Hackett, 1994, 1996, 2002) propose that a nursing career choice is more likely if there is greater congruence between the ideal career and a nursing career (NCPC). But these tenets also hold that, NCPC is not enough to totally influence choice. Another crucial factor in the choice process is the presence or absence of social support. That is, social support is the contextual influence that moderates career interests and career choices. Thus, the link between NCPC and Choice of Nursing as a Career (NCC) will be stronger among individuals who perceive strong support for nursing as a career choice and weaker among individuals who perceive less support for nursing as a career choice. The following section is a review of the literature concerning perceived social support for a nursing career.

### **Summary of Nursing Career Perception Congruence**

No other studies have utilized the Attitudes, Values & Beliefs Scale to measure the concept of nursing career perception congruence in Hispanic middle school females. Other studies have used this tool to look at line by line differences and/or similarities between the ideal career and a nursing career differences (i.e “I want to make a lot of money vs. I believe nurses make a lot of money”). Utilizing the AVBS in this manner will help distinguish how Hispanics middle school students view nursing overall in comparison with their ideal career.

### **Perceived Social Support**

Utilizing the Social Cognitive Career Model (SCCT), perceived social support for nursing as a career (PSSNC) is a contextual factor that moderates the relation between career interest and career choice. Specifically, SCCT proposes that interest to choice relations will be stronger among people who perceive ample PSSNC and weaker among those who perceive less social support (Lent et al., 1994). Particularly, support from parent, family, peer, and teacher groups have been found to be significant in predicting career choice (Bluestein, Juntunen, Worthington, 2000; Phillips Christopher, Lisi, 2001; Schultheiss, Kress, Manzi, Glasscock, 2001). SCCT also emphasizes that an individual has a degree of personal agency with regard to social support. This premise of SCCT draws on the concepts of Vondracek, Lerner, and Schullenberg’s (1986) developmental-contextual theory which posits that perceived social support affects career choice only if the individual recognizes, welcomes, and responds to it. So not only does support for a nursing career exist, does a Hispanic female identify, embrace, and react to that support by choosing nursing as a career?

In a study conducted by Ali, McWhirter, and Chronister (2005) using SCCT as a framework, 114 ninth graders (47 boys, 66 girls) from lower socioeconomic (SES) backgrounds

were surveyed to assess the contributions of social support to career expectations (choice). The sample was comprised of Whites (77.1%), Blacks (.8%), Hispanics (6.9%), and Asians, Native Americans, and other (15.2%). SES was determined using the Four Factor Index of Social Status (Hollingshead, 1975) which uses multiple factors to calculate SES. Perception of parental support was tested using the Parent Support Scale (PSSNC), a 26-item tool (Cronbach's alpha this sample .92, overall .86). Sibling support was measured by the Sibling Support Scale (SSS) an investigator developed 17-item scale (correlation coefficient  $r = .56$ ) used to calculate support from their most influential sibling. Finally, support from friends was determined by the Friend Support Scale (FSS), a sixteen-item investigator developed tool (correlation coefficient  $r = .56$ ). Results revealed a moderate positive correlation between mother support and father support ( $r = .65, p = .01$ ), and mother and father support was moderately positively correlated with peer support ( $r = .38, p < .01$ ), but not with sibling support ( $r = -.05, p = n.s.$ ). The results of the hierarchical multiple regression revealed that sibling and peer support predicted career expectations (choice)  $R^2 = .13, F(4, 54) = 2.57, p = .05$ . Unlike in the previous research study where mothers and fathers' support was significant, in this study of lower SES Hispanic adolescents, the support from siblings and peers was more influential to career expectations (choice).

When Arbona (1990) conducted a literature review (1970 to 1990) of career counseling research in US Hispanics, there was very little published pertaining to their career-choice process and social support. The research specifically pertaining to Hispanic woman was essentially nonexistent. When Gomez, Fassinger, Prosser, Cooke, Mejia, and Luna (2001) conducted a qualitative study to explore the career development of 20 noteworthy female Hispanics, the emergent theory (Career Life-Path) that developed proposed that Hispanic

females' career development was influenced by "sociopolitical, cultural, contextual, and personal variables" (p. 286). Interestingly, all of the women in this study recognized and paid homage to all of the social support they received throughout their lives. The social support often came from other women of all races and persuasions, family members (both nuclear and extended), coworkers, professional organizations, teachers, mentors, role models, and spouses. Special notation was often given to one central person who was critical to their career development, most often, a teacher, mentor, role model, mother or spouse who fostered their career development.

### **Conceptual Framework**

Using Lent, Brown, and Hackett's (1994) SCCT model, Flores and O'Brien (2002) found that social support was pivotal to Mexican American girls' selection of careers. In a sample ( $N = 364$ ) of Mexican American adolescent females (16 to 21 years old), the Career Support Scale (CSS) (Binen, Franta, & Thye, 1995) was used to measure perceived parental support for career choices. The CSS was adapted by evaluating support from both parents at the same time rather than individually. Participants responded to the 10 items using a 5-point Likert scale. Scale scores were obtained by averaging the items (range from 1-5), and high scores reflected strong levels of perceived support from parents ( $M = 4.16$ ,  $SD = 0.72$ ). Career aspiration (choice) was measured using the Career Aspiration Scale (CAS) (O'Brien, 1992) that contained 10 items that evaluated participants' goals and plans for their future career. Scale scores were obtained by averaging the items (range from 1-4). High scores reflected strong desire to pursue ones' choice career ( $M = 2.48$ ,  $SD = 0.53$ ).

After the hypothesized model was rejected due to poor fit ( $\chi^2 = 34.65$   $df = 12$ ,  $p = 0.01$ ), the revised model predicting career aspiration demonstrated a good fit ( $\chi^2 = 18.47$ ,  $df = 11$ ,  $p = 0.07$ ). Path analyses were run to determine the influence of social support on career aspiration

(choice) was significant ( $r = .13$ ,  $p = .05$ ) The squared multiple correlation coefficient for the model of career aspiration indicated that 13% of the variance in career aspiration was accounted for by feminist attitudes, nontraditional career self-efficacy, nontraditional career interests, parental support, and perception of future barriers. Findings of this study provided empirical support for Lent et al.'s (1994, 2002) proposition that the presence of support has a positive effect on career choice.

Grossman and Northrop (1993) surveyed 493 US high school students' opinions of a nursing career and what supported those opinions. Using a field tested questionnaire, the highest possible opinion score was 56, indicating the most positive opinion for a nursing career, while the lowest possible score was 14, signifying the least supportive opinion for a nursing career. The student's mean opinion score was 40.92 ( $SD = 7.8$ ). One-way analyses of variance revealed that the opinions of nursing held by parents, friends, and guidance counselors (forms of social support) had a statistically significant positive influence ( $p = .0001$ ,  $.0001$ , and  $.0002$ , respectively) on the students' opinion scores. Post hoc analyses using the Fisher's LSD test revealed statistically significant differences in opinion scores of students who thought that their parents would perceive a nursing career as excellent (high social support) ( $M = 43$ ), good ( $M = 41$ ), not good ( $M = 40$ ), fair ( $M = 39$ ), or not at all good (low social support) ( $M = 36$ ). Though no statistics were reported, comparable differences in the mean opinion scores (degrees of social support) were also found according to friends' and guidance counselors' opinions. Additional analyses using the chi-square statistic examined the relationship between consideration of a nursing career and parents' occupation. Consideration of a nursing career was statistically significantly influenced by mother's occupation ( $\chi^2 = 6.53$   $df = 2$ ,  $p = < 0.03$ ). Father's occupation, however, had no statistically significant effect.

Kersten, Bakewell, and Meyer (1991) found that similar sources of support influenced choice of nursing as a career. In triangulated study with coed nursing students across the US with an investigator-designed survey to explore supportive factors when choosing a nursing career ( $n = 752$ ). The outcomes of this study revealed that contact and social support from nurses was the most influential factor in choosing a nursing career (39%) followed by support from family (31%), self support (16%), support from friends (16%), and physician support (7%). It is clear that those individuals close to the student and those working in health care provided positive social support for nursing as a career to students.

Buerhaus, Donelan, Norman, and Dittus, (2005) conducted a study with 510 randomly selected coed nursing students across the US looking at social support for nursing as a career. Akin to the findings in the two previous studies, 65 % of respondents identified support from practicing nurses as a factor that positively influenced their decision to become a nurse. Nearly 50 % agreed that PNSSC from friends, parents, and other family members had a positive influence on their decision. And although no percentages were reported, younger nursing students were much more likely than older students to agree that PSSNC from their parents and from other family members had a positive influence on their decision to become a nurse.

Villarruel, Canales, and Torres (2001) conducted focus groups with 37 Hispanic nurses in six cities across the US to study the bridges (support) that helped them choose nursing, get through nursing school, and advance in a nursing career. Again, results revealed different types of support that was influential to the choice, development, and future advancement of a nursing career. Institutional support (i.e. financial aid, flexible scheduling of classes [nights and weekends]), support from faculty, peers, and colleagues, family members' (encouragement and motivation), role models and mentors, personal support (ambitions, goal setting, determination),

and finally, the desire to have professional status and more influence in the Hispanic community were themes identified by the participants.

In another study using focus groups, Cason , Bond, Gleason-Wynn, Coggin, Lopez, and Trevino (2008) used the adapted Model of Institutional Support as a framework to study Hispanic healthcare providers' ( $n = 29$ ) social support to influence Hispanic students' choice of nursing career. Similar to the previous study, financial support (money to cover tuition, fees, living expenses and access to potential scholarships, and financial aid), emotional and moral support (from faculty, family and others students), self-determination (personal support), and mentoring were all identified as a powerful sources of PSSNC. This study identified that social support from families and peers was the most powerful source of support for Hispanic students. In Hispanic culture, this support is often referred to as the value of familismo (Marin & Marin, 1991). Other forms of support identified were academic advisement, technical support (access and assistance to computers, equipment, libraries and professional role socialization (participation in activities that enhance skills and abilities necessary to be a nurse).

### **Summary**

The recruitment of Hispanic middle school students into nursing careers is essential to eliminate health disparities and provide patients with the best possible care. Ways in which populations perceive nursing as a career has a strong influence on choosing nursing as a career. Nursing career perception congruence and perceived social support for nursing as a career can lead the HMSF to choose nursing as a career.

This literature review has provided an overview of career choice theory and its relationship to nursing career choice, nursing career perception congruence utilizing the Attitudes, Values & Beliefs Scale and perceived social support research. The relationship of

nursing career perception congruence and perceived social support for nursing as a career on HMSF nursing career choice was examined in this study.

The current nursing workforce does not reflect the population of the United States; the Hispanic population is severely underrepresented in the RN workforce (NSSRN, 2008). Informed nursing recruitment during the prime middle school years is key to increasing the number of nurses, especially Hispanic nurses in the workforce (Matutina, 2008; Knight, et al, 2011). Through a better understanding of nursing career choice of HMSF and of the factors contributing to nursing career choice HMSF, nurse leaders, nurse recruiters, nurse educators and all nurses will be able to better create a more diverse nursing workforce. Prior to this research, no studies have related these concepts within the HMSF population. This descriptive correlational study aims to address these research gaps in the literature.

## **CHAPTER III**

### **Methodology**

The purpose of this study was to investigate the relationship among nursing career perception congruence, perceived social support for nursing as a career, and nursing career choice in Hispanic middle school females (HMSF), and to test whether perceived social support moderates the relationship between nursing career perception congruence and nursing career choice. This chapter provides a discussion of the methodology employed in the study. It includes the rationale for the research design, the sample and the instruments used. It continues with the discussion of the data analysis procedures and ethical considerations.

#### **Research Design and Rationale**

This study used a cross-sectional, descriptive correlational design and employed a survey method of investigation. Non-experimental design is an investigation of current status or relationships, which includes defining characteristics that are descriptive in nature (Polit & Beck, 2008). While the correlational design might not allow prediction of an outcome, it provides data that identifies whether two sets of data vary consistently (Creswell, 2008). For this study, data were collected from participants to measure and predict the relationship between nursing career perception congruence, perceived social support, and the nursing career choice of HMSF.

#### **Population and Sample**

A convenience sample was used to gather the sample for this study. Hispanic females attending middle school were included in this study. The sample ( $N = 200$ ) came from a population of students attending 22 schools in the Archdiocese of New York.

The sample for this study was defined as Hispanic middle school females in the 7<sup>th</sup> or 8<sup>th</sup> grade attending a school in the Archdiocese of New York. There are approximately 51,114

elementary school aged children are enrolled in the Archdiocese of New York Parochial schools, with each 7<sup>th</sup> and 8th grade classrooms having on average 40 students. The overall ethnic makeup of these Parochial schools is: White (12%), Black (29%), Hispanic (51%), and Asian/Pacific Islander (3%)(Archdiocese of New York, 2010). Overall, the schools have an equal number of females and males.

The research utilized survey instruments to gather data. Archdiocesan elementary school principals were mailed the introductory recruitment letter via postal service, asking them to participate in the study. The introductory recruitment letter included inclusion criteria, questionnaire explanation of the study, contact information, parental consent procedures, directions on where the study would take place and the rights of study participants.

An Excel spreadsheet was generated listing 43 elementary schools in the Archdiocese of New York; schools were chosen based on the concentration of Hispanics residing in that area (US Census, 2012). This spreadsheet was retained by the researcher so that reminder phone calls and emails could be sent to the principals. A phone call to the principal was made approximately two weeks after the postal letter was sent. Two follow-up emails were sent to encourage school participation in the study. These reminders were sent on the fourth and sixth week after the introductory/recruitment letter was sent for follow-up.

A structured, self-report method allowed the respondents to respond directly in writing. It enables a researcher to gather retrospective data about activities that have occurred in the past, or gather projections about behaviors which people plan to engage in the future (Polit & Beck 2008) Questionnaires allow for quick results from completed surveys, and allow the researcher to include a larger number of participants at a reasonable cost (Dillman, 2009; Burton, 2011).

A priori power analysis was conducted using software G\*Power 3.0.10 (Faul, Erdfelder, Lang & Buchner, 2007) to determine the required sample size to answer the research question. The minimum sample size for this research is 150 participants based on a logistic regression model assuming a significance level of .05, power of .80, estimated effect size of  $R^2 = 0.15$ , for the two independent variables. Alpha and beta significance levels were set at .05 and .20, respectively (Polit & Beck, 2008). An effect size measures the strength of a relationship between two variables in a population; it is “the magnitude of the effect of an independent variable on the dependent variable” (Munro, 2005, p. 100). Sampling accounted for possible incomplete surveys and excluded participants who answered the survey but did not fit the sampling criteria. Therefore a total of (n=200) participants completed the questionnaire with very few missing values.

## **Instrumentation**

### **Participant Eligibility Screening**

Although data was collected from all 7<sup>th</sup> and 8<sup>th</sup> grade students who returned the parental consent, only data from self-identified Hispanic female students was analyzed for this study. The participants who self report as male or of non-Hispanic ethnicity were destroyed.

### **Demographic Sheet**

A demographic data sheet (Appendix A) was included. Investigators often choose to collect demographic data so as to follow-up this data in relation to other study variables (Creswell & Plano-Clark, 2007). In this study, because students’ gender and ethnicity in relation to other study variables was of primary interest (i.e., relation to nursing career choice), the demographic sheet assessed gender, as well as ethnicity, grade, grade average, whether they

thought they would attend college, any close friend/family in nursing, family member in hospital in past year, parents highest educational background, and language(s) spoken at home.

### **Nursing Career Choice Scale (NCC)**

The Nursing Career Choice Scale (NCCS) (Appendix B) was created as a single item to determine respondents' career decisions regarding nursing as a career choice. The three choices are "I will not pursue a career in nursing", "I may pursue a career in nursing", and "I will pursue a career in nursing".

### **Attitudes Values and Beliefs Scale (AVBS)**

Developed in 1988, the Attitudes, Values and Beliefs Scale (AVBS) consist of 34 items in a 5 point Likert format (see Appendix B). The AVBS is a self-report questionnaire divided into 2 scales. The Ideal Career Scale (ICS) measures the attitudes toward ideal career (17 items) and the Nursing Career Scale (NCS) measures attitudes towards nursing as a career (17 items). Cronbach's  $\alpha$  for the ideal and nursing was equal to .84 and .81 respectively (May, Austin & Champion, 1988, p. 11) in a population of school age students ( $n = 330$ ), parents ( $n = 327$ ), school nurses ( $n = 76$ ), teachers and counselors ( $n = 81$ ), and college students ( $n = 302$ ). In another study utilizing the AVBS, Reiskin and Haussler (1994), found Cronbach's  $\alpha$  on the ideal career scale scored 0.85 and the nursing career scale scored 0.89 indicating a high degree of reliability Responses measure perceptions of an ideal career and a nursing career from strongly agree, agree, uncertain, disagree, and strongly disagree (May, Austin & Champion, 1988). The Ideal Career Scale asks the participant, "When I'm an adult, it will be important to my career that I...". Participants were asked to indicate the extent to which each attribute characterizes their perception of an ideal career on five-point scales ranging from -2 (does not characterize perception of an ideal career) to +2 (characterizes my perception of an ideal career very much).

The Nursing Career Scale asks the participant to indicate the extent to which each attribute characterizes their perception of a nursing career. In order to obtain a measure of nursing career perception congruence, absolute difference scores were calculated between ideal career scores and nursing as a career scores, such that low numbers mean high congruence between participants' perception of the ideal career and a nursing career. Possible total score for the survey range is from 0 to 68 with lower scores indicating higher nursing career perception congruence.

The structural validity of the AVBS was evaluated by means of a confirmatory factor analysis (May, Austin, Champion, 1988) utilizing a principal components factor technique with iteration and orthogonal rotation. A cutoff of 0.35 was established to include items. The factor analysis identified four dimensions for the ideal career: *knowledge* related to intellectual activity, *power* related to prestige and authority within society, *evaluation* related to an affective dimension of valuing an ideal career, and *activity* related to physical activity. Three dimensions emerged for a nursing career: *activity*, *evaluation*, and *potency*. Similar to the ideal career, activity involved physical work. However, in the nursing dimension, *activity* also included intellectual activity and caring. The *Evaluation* and *Power* meanings remained consistent from the ideal career to a nursing career. Finally, *Knowledge*, though rated high in the ideal career did not emerge as a dimension in nursing as a career (May, Austin, & Champion, 1988, 1991; Reiskin & Haussler, 1994).

Construct validity was established by May and colleagues (1988) by performing a factor analysis on the questionnaire used in this study. The authors found 68% of the items on each scale had factor loading of 0.5 and higher indicating an acceptable degree of construct validity

(May, Austin, and Champion, 1988). A second factor analysis conducted by Reiskin and Haussler (1994) found that 78% of the items had factor loading of more than 0.6.

### **The Child and Adolescent Social Support Scale (CASSS)**

The Child and Adolescent Social Support Scale (CASSS)(Appendix D) is a multidimensional measure of perceived social support. Perceived social support refers to an individual's perceptions of general support or specific supportive behaviors (available or enacted upon) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes. The CASSS has gone through several revisions. The original version was called the Student Social Support Scale, (SSSS; Nolten, 1994) was influenced by Tardy's (1985) multidimensional view of social support, and was designed to address the lack of comprehensiveness of instruments measuring social support. It was a 60 item questionnaire that assessed social support, from the students' perspective, and was considered appropriate for students from grade 3 to 12.

In 1999, the scale was adjusted, and the name was changed to the CASSS (Malecki, Demaray, Elliott, & Nolton, 1999). Questions were made age appropriate, by the creation of two levels; level 1 addressed students from grades 3-8 and level two addressed students in grades 9-12. In addition, the instrument was scaled down to 40 questions. In 2000, the CASSS (Malecki, Demaray, & Elliott, 2000) was revised again. The final revision included three changes; the 43 instrument changed from two forms to one form, appropriate for grades 3 -12; new items were added, and others were deleted to create an equal number of items for the four subscales; lastly, an additional subscale for school support was added, resulting in a 60 item scale.

The original CASSS (Malecki et al., 1999) had evidence for reliability and validity from data on over 1,000 students (Malecki & Demaray, 2002). The revised CASSS (Malecki,

Demaray, Elliot, 2004) has also been vigorously analyzed through numerous unpublished studies (Karam, 2006; Lang, 2005; Poll, 2003) as well as published studies (Demaray & Malecki, 2002; Demaray & Malecki, 2003; Malecki & Demaray 2003; Demaray, Malecki, Davidson, Hodgson; Rebus, 2005). The four published studies, included 905 students from grades 3-8, provided strong evidence for psychometric properties for the CASSS (2000); alpha = .97 reliability for the total score, and  $r = .78$  for test retest reliability . In addition, the CASSS manual (Malecki, Demaray & Elliott, 2004) provided strong evidence for internal consistency for the subscale scores with alphas ranging from .93 to .96 ( $n = 586$  for parent, teacher, close friend, classmate, and school) and .97 ( $n= 657$ ) for the total frequency score. Test-retest correlations, established 8 to 10 weeks after the initial administration, ranged from .75 to .78 for the frequency total score and from .58 to .74 on the frequency subscale scores (Malecki et al., 2004).

The CASSS manual contained evidence for factor structure. Factor analysis from data on 586 fifth to twelfth graders indicated a clear five-factor structure, corresponding to the five subscales (parent, teacher, classmate, close friend and school), ranging from .60 to .84 within each factor. No items were dual loaded. The factors contained eigenvalues that ranged from 22.147 to 2.65 (Malecki et al., 2004).

The CASSS (2000) version used in this study is a single 60-item self-report measure for students in grades 3-12 that consists of five 12-item source subscales. Each of the five subscales corresponds to one of the sources of support (Parent, Teacher, Classmate, Close Friend, and School). Each item refers to one of four types of support (emotional, informational, appraisal, and instrumental). Students rate the frequency of support on a 6-point Likert scale ranging from 1 (*never occurring*) to 6 (*always occurring*). Students also rate the importance of support from each of the five sources on a 3-point Likert scale ranging from 1 (*not important*) to 3 (*very*

*important*) (Malecki, Demaray, Elliott, 2004). In addition, the CASSS (2000) taps four types of supportive behaviors from each source including emotional, instrumental, informational, and appraisal social support types (Malecki et al., 2004).

The CASSS includes two composite scores: a composite score of perceived social support (Total Support Score) and a composite score of importance (Total Importance Score). The Total Support Score reflects the four types of support from the five different sources of social support. Frequency items on the CASSS are scored by summing the 12 items from the five source subscales to obtain the Total Support. Total Support scores range from 60 to 360, which represents a global measure of perceived social support; higher scores indicate higher perceived support. The Total Importance Score, which is an indication of how important the social support is to the student, is obtained by summing the five importance subscale scores. Total Importance scores range from 60 to 180. In this study, I used both the Total Support and the Total Importance scores to identify how much and the importance of the types of support students perceive from the different sources. This information allowed for the assessment of students' perception of social support for nursing as a career.

### **Data Collection Procedures**

Prior to implementation of this study's research, Institutional Review Board (IRB) approval (Appendix H) and approval from Dr Timothy McNiff, the Superintendent of Schools of the Archdiocese of New York (Appendix I), and approval of each school principal (Appendix E) was obtained. The informed consent identified the focus of the research as well as a promise of confidentiality for the participants. Schools were informed that they will be able to terminate participation at any time. Of the 43 schools solicited to participate, six principals declined to participate. Twenty two principals agreed to participate.

After all approvals were granted, an introductory letter describing the purpose of the study with an invitation to have their child participate voluntarily in the study, and parental consent form was sent home to approximately 1300 7<sup>th</sup> and 8th grade students in 22 schools. The introductory recruitment letter/parental consent form included inclusion criteria, questionnaire explanation of the study, contact information, when the data collection was to take place and their rights as study participants and parents/guardians. Students were given the informed consent forms to take home to share with their parents or guardians, and instructed that their parent/guardian must sign and return the consent form to participate in this research. The informed consent form indicated the timeframe within which parents had to respond (i.e., two days from the date the forms were handed out).

Survey administration took place during the instructional time that would be utilized to fulfill NYS Educational Curriculum Objectives dedicated to career exploration and development. The investigator explained the purpose of the study, answered any questions the students have, and assured them anonymity, and that this would not affect their academic standing. Participants were told to raise their hand if they do not understand something related to the research measures or needed further clarification. The investigator personally answered each student's questions as needed; however, the investigator did not assist participants in responding to the research items in order to avoid biasing the results of the study.

At the conclusion of the introduction, the assent forms were handed out to the students who had returned the parental consent forms. The investigator then proceeded to hand a questionnaire pack to each student that assented to participate in the study. All other students in the room were offered an alternate activity to complete.

Nursing Career Choice was measured by the Nursing Career Choice Scale. The Attitudes, Values, and Beliefs Scale (May, Champion & Austin, 1988) measured nursing career perception congruence. Perceived social support for nursing as a career was measured with the Child and Adolescent Social Support Scale (CASSS; Malecki, Demaray, & Elliott, 2004). The three instruments, with titles removed, and the personal data sheet were arranged in a packet in six permutations and coded to check for possible order effect. A demographic data sheet was used to collect participant's demographic information such as age, as well as gender, grade, grade average, ethnicity, whether they thought they would attend college, close friend/family in nursing, family member in hospital in past year, parents highest educational background, and language(s) spoke at home (see Appendix A). The personal data sheet was always administered last.

Once the students completed the questionnaires, they were placed them in a collection box in the front of the room. Only after the instructor had indicated that all of the questionnaires have been handed in, did the investigator return to the classroom to conduct a presentation for all of the students about the exciting opportunities a career in nursing has to offer. Completion of the surveys took approximately 15-20 minutes. Surveys were coded by school name only. Data was collected only from students who returned the parental consent form and signed the student assent form. However, only data from females who self-identified as Hispanic was analyzed for this study. All questionnaires from students not meeting these criteria were destroyed. Paper questionnaires were stored in a separate locked file cabinet in the PI home office. The data will be kept securely until they are destroyed.

The nursing presentation utilized material and instruction from the National Student Nurses Association (NSNA) "Breakthrough to Nursing Program" (BTN) a national recruitment

project to recruit minorities into nursing. The NSNA video, *Nursing-The Ultimate Adventure*, designed to interest students in a nursing career will be shown.

### **Protection of Human Subjects**

To protect human subjects in research, IRB approval from Lehman College, City University of New York was obtained prior to commencement of the study. The introductory recruitment letter provided participants/parents and guardians the information necessary for informed consent (see Appendix F). Participants received an explanation of the study and risks and benefits associated with the study. The use of the student assent form acknowledges the participant's rights (see Appendix G). Before the participants engaged in the research, they were informed that the data will be maintained in a confidential secure manner. Study participants were able to choose not to participate and/or withdraw study participation at any time (Creswell, 2008). Participants were told that their identity was not linked to individual responses. Confidentiality of the data collected from the participants was maintained as declassified data, and only group data was reported. Voluntary consent recognizes the fact that each person has an inherent capacity for self-determination (Creswell, 2008; Polit & Beck, 2008). Ethically, in this study, each participant's autonomy in decision-making was respected.

### **Data Analysis**

Data analysis was conducted using Statistical Package for Social Sciences IBM (SPSS) 17.0. Descriptive statistics were provided for nursing career perception congruence, perceived social support for nursing as a career, and nursing career choice. Correlations were calculated for nursing career perception congruence, perceived social support for nursing as a career, and nursing career choice. Parametric statistical procedures were used. The following research question and hypotheses were proposed in this study.

### Research Question

Research Question 1: What is the relationship between nursing career perception congruence and perceived social support for nursing as a career and nursing career choice in the Hispanic middle school female?

### Hypotheses

**Hypothesis 1:** Hispanic middle school females with increased nursing career perception congruence will be more likely to choose nursing as a career.

**Hypothesis 2:** Hispanic middle school females with increased perceived support for nursing as a career will contribute to nursing career choice over and above what is contributed by nursing career perception congruence.

**Hypothesis 3:** Nursing career perception congruence in the presence of perceived social support for nursing as a career will predict career choice in Hispanic middle school females. Specifically, higher perceived support increases the effect of nursing career perception congruence on nursing career choice.

The Nursing Career Choice Scale, The Attitudes, Values and Beliefs Scale, and the Children and Adolescent Social Support Scale are Likert scales. Data collected from these scales are ordinal in nature. The values of each item of a Likert scale are ordinal level data: summed scores represent interval data. Use of summed scores allows for more sophisticated analyses (Burns & Grove, 2009). The significance level was set at 0.05.

The sample was described by age, as well as gender, grade, grade average, ethnicity, whether they thought they would attend college, close friend/family in nursing, family member in hospital in past year, parents highest educational background, and language(s) spoke at home.

Each survey was scored according to instructions provided by the authors of those instruments. Cronbach's alpha was determined for each instrument. Cronbach's alpha showed good reliability with item-total correlation similar to previous research. A total score was tabulated for each instrument. Scores were reported descriptively using means, frequencies and standard deviations. Crosstabs and chi squares were calculated to assess the relationship between nursing career choice and several of the demographic variables. A correlation matrix on all data was generated using Pearson ( $r$ ) for each independent variable (nursing career perception congruence and perceived social support for nursing as a career) against the predicted variable (nursing career choice). A multinomial logistic regression analysis was used to evaluate the relationship of nursing career perception congruence and perceived social support for nursing as a career to nursing career choice. Additional predictors were evaluated to see if they significantly increase the likelihood of the observed results.

The logistic regression model was evaluated in three steps. First the extent to which the model fit the observed data was evaluated using two statistics. The comparison of observed to predicted values was based on the log likelihood function and a good model is one in which there is a high likelihood of the observed results. This was indicated by a small -2 Log Likelihood statistic. The Goodness-of-Fit statistic compared the predicted values to the observed values so an insignificant statistic indicates a good fit, (i.e. no statistically significant difference between predicted and observed values). Second, a chi-square statistic compared the predicted values for a block of predictors to the predicted values for the previous block of predictors. The benefit of using a regression analysis for the purposes of assessing these relationships is that it allows the researcher to explicitly control for many other factors that simultaneously affect the dependent variable (Munro, 2005).

### **Summary**

This chapter provided a discussion of the methodology employed in the current study. The rationale for the survey design, the sample size, data collection procedures, and demographics, the measures instruments used in this study were discussed. Each instrument was selected because of its simplicity of use and has been widely utilized in scholarly studies. A discussion of the data analysis procedures and ethical considerations relevant for this study were included. Protection of human subjects including the process of obtaining informed consent, student assent, and data were identified. Measures to maintain security and confidentiality were also included. Chapter IV discusses the data analysis procedures and results of the study.

## **Chapter IV**

### **Results**

The purpose of this study was to examine the relationship between the dependent variable nursing career choice (NCC) and the independent variables nursing career perception congruence (NCPC) and perceived social support for nursing as a career (PSSNC). It was hypothesized that high nursing career perception congruence and high perceived social support for nursing as a career will be associated with an increased likelihood of Hispanic middle school females' choosing nursing as a career. For Hispanic middle school females the relationships among these variables were tested utilizing Pearson's' correlation and NCC was predicted using logistic linear regression. The chapter is organized into the following five sections: (a) data collection results, (b) sample characteristics, (c) descriptive statistics, (d) psychometric evaluation of the instruments to measure accuracy, (e) primary data analyses for each hypothesis, and additional analysis. A summary of data analyses concludes this chapter.

#### **Data Collection Results and Response Rates**

The sample for this study, 7<sup>th</sup> and 8<sup>th</sup> grade Hispanic females, was recruited from various Parochial schools in the Archdiocese of New York. Two hundred participants completed the questionnaires. Informed consent and student assent were obtained. Participants were asked to complete ten demographic questions, a single question on nursing career choice and two Likert-item study instruments: the Attitudes, Values, and Beliefs Scale (AVBS, 34 items) and (2) The Child and Adolescent Social Support Scale (CASSS, 60 items).

If participants did not meet the inclusion criteria they were appropriately excluded from the analysis. Six hundred and ten participants filled out the survey; 200 were Hispanics middle school females (the target population) who were included in the analysis. Original calculations

to detect a small difference in effect size (.15) estimated a need for a sample of 150. The current sample size of 200 is adequate for a power of .80, significance of .05 and effect size of .20. The a priori G\*Power 3.0.10 (Faul, Erdfelder, Lang & Buchner, 2007) established that there was adequate power to detect significant relationships if they were present.

Prior to analysis, all variables were examined through descriptive and case summary reports for accuracy of data and missing values. For the individual survey questions there was never more than 7 (3.5%) participants who left that item blank. Three out of the 200 participants left more than 50 questions blank. Four participants were not included in the logistic regression analysis because they were missing values for more than one of the scales used in the analysis. Consequently the analysis always used at least 193 out of the 200 participants and we can conclude that missing values were not a source of bias. The instruments were scored by calculating the average of the responses that were made for each scale. Notably, there were no differences in analyses run with and without these cases.

### **Demographics**

Descriptive statistics, frequencies and percentages for the demographic characteristics of age, gender, grade, GPA, college plans, close friend/relative who is a nurse, family member in hospital, highest education level in household, and language (s) spoken at home are represented in Table 4.1. The Hispanic females were evenly divided among the 7<sup>th</sup> and 8<sup>th</sup> grade and averaged 12 years of age ( $SD = 0.8$ ). Over 90% of the sample reported a high grade point average either A or B. Ninety nine per cent of the participants reported that they planned to attend college. Sixty percent of the participants had a close friend or relative who was a nurse, and 84% had either themselves or a family member in the hospital in the last year. More than half (60%) of the sample reported that the highest level of education obtained by a

parent/guardian in the household was a baccalaureate degree and higher. The majority of the respondents (62.5%) spoke a language other than English in the home.

Table 4.1

*Frequency Distribution of Hispanic Females' Demographic Data*

Variable	Frequency	Percentage
Grade		
7 <sup>th</sup>	100	50.5
8 <sup>th</sup>	99	49.5
Age		
11	28	14.0
12	77	38.5
13	85	42.5
14	9	4.5
15	1	0.5
Grade Average		
A	87	43.5
B	93	46.5
C	14	7.0
D	2	1.0
Will Attend College		
No	2	1.0
Yes	198	99.0
Close Friend/Relative RN		
No	78	39.0
Yes	120	60.0
Self/Family Hospital		
No	31	15.5
Yes	168	84.0
Highest Ed Level		
Less than High School	7	3.5
High School Graduate	25	12.5
Some College Work	33	16.5
Baccalaureate Degree	32	16.0
Some Graduate Work	13	6.5
Graduate Degree	86	43.0
Language at Home		
Only English	75	37.5
English/other language	125	62.5

**Assessment of the Reliability of the Study Instruments**

Nursing career perception congruence was measured using the 34-item Attitudes, Values and Beliefs Scale (AVBS) developed by May, Austin & Champion (1998). The AVBS is a self-

report questionnaire is divided into 2 subscales. The Ideal Career Scale measures the attitudes toward ideal career (17 items) and the Nursing Career Scale measures attitudes towards nursing as a career (17 items). The questionnaire uses a 5 point Likert format ranging from 1 indicating strongly agree to -1 indicating strongly disagree. The possible total score for each scale ranged from -34 to 34 with lower scores indicating that the ideal career and/or a nursing career included the characteristics listed. In the original study, the Attitudes, Values, and Beliefs scale demonstrated an overall internal consistency Cronbach's alpha of .84 for the ideal career scale and .81 for the nursing career scale (May, Champion & Austin, 1991). For this study, Cronbach's alpha was .71 (ideal career) and .88 (nursing career) respectively.

The Child and Adolescent Social Support Scale is a multidimensional measure of perceived social support. The 60-item Child and Adolescent Social Support Scale (CASSS) developed by Malecki, Demaray, & Elliot (2004) measures four types of perceived social support (emotional, informational, appraisal, and instrumental) from five different sources (parents, teachers, classmates, close friends, and school). Each of the five subscales corresponds to one source of support and consists of 12 items, with 60 items total. Participants read each statement and describing a specific supportive behavior and respond by rating how often they receive that support from the source (frequency ratings) and how important that support is to them (importance ratings). The frequency ratings use a 6-point Likert format ranging from -2 indicating *Never* to 4 indicating *Always*. Importance ratings consist of a 3-point Likert scale ranging from 1 (Not Important) to 3 (Very Important). Each subscale frequency and importance scores were summed. In addition, a total scale frequency and importance score was calculated by summing all five frequency and importance subscale scores. Cronbach's alpha (Nunnally & Bernstein, 1994), a measure of internal consistency, was 0.963 for this study.

The Cronbach's coefficient alpha was used to measure the reliability of the Attitudes, Values & Beliefs Scale and the Child & Adolescent Social Support Scale (CASSS). Cronbach's alpha is an estimate of internal consistency, or how closely the items on the scale are measuring the same underlying dimension (Polit & Beck, 2008). An acceptable coefficient for an established instrument is .70. The Cronbach's alphas of the instruments in this sample can be found in Table 4.2. Study instruments demonstrated adequate reliability with Cronbach's alpha 0.77 and greater for use in this study.

Table 4.2

*Reliability Statistics*

Instrument	Cronbach's Alpha
Attitudes Values & Beliefs Scale (34 Items)	.877
Ideal Career Scale (17 items)	.771
Nursing Career Scale (17 items)	.867
Child & Adolescent Social Support Scale (60 items)	.963

**Descriptive Statistics**

Frequency distributions for the Nursing Career Choice Scale are presented in Table 4.3. Overall, 12.5% ( $n=25$ ) reported that they will pursue nursing as a career. Forty percent ( $n=80$ ) did not see themselves pursuing a nursing as a career, and finally, 46% ( $n=92$ ) reported they may pursue nursing as a career.

Table 4.3

*Descriptive Statistics for Nursing Career Choice Scale*

Measure	Frequency	Percentage
Will not pursue nursing	80	40.0
May pursue nursing	92	46.0%
Will pursue nursing	25	12.5
Total	197	98.5

For the three instruments utilized, mean scores and standard deviations and ranges for the measures are reported in Tables 4.4 and 4.5. Participants rated their ideal career higher than a nursing career. Thus, the characteristics that comprised their ideal career were not fully present in a nursing career. The NCPC score quantifies the magnitude of that difference. The NCPC score indicates the level of congruence between the ideal career and nursing as a career. The lower this score is, the more congruence between the ideal career and nursing as a career. The mean score for nursing career perception congruence was 14.20 ( $SD = 5.5$ ) out of a possible 34. Scale mean scores and standard deviations for the Child & Adolescent Social Support Scale (CASSS) were divided among the two scales: the frequency of social support and the importance of social support. The frequency of support was how often the participant felt the support and the importance indicated how high a value was placed on that support. A P-P plot was used to check for violations of normality; there were none.

Table 4.4

*Means, SD, Range & Scale*

Measure	<i>N</i>	Mean	Standard Deviation	Range
Attitudes Values & Beliefs Scale				
Ideal Career	200	1.18	.36	.18 to 1.88
Nursing Career	200	.94	.47	-1.00 to 1.88
Nursing Career Perception Congruence	200	14.20	5.46	4 to 37
Child & Adolescent Social Support Scale				
Frequency	197	2.05	.95	-.938 to 3.75
Missing	3			
Importance	196	2.22	.37	1.39 to 3.14
Missing	4			

The CASSS is further divided into sources of support.

Table 4.5

*Descriptive Statistics for CASSS by Source*

Measure	<i>N</i>	Mean	Standard Deviation
Parent Frequency	200	2.16	1.29
Parent Importance	197	2.22	.38
Teacher Frequency	197	2.23	1.17
Teacher Importance	196	2.50	.56
Classmate Frequency	200	1.68	1.17
Classmate Importance	197	2.06	.45
Close Friend Frequency	200	2.67	1.14
Close Friend Importance	197	2.30	.45
People in School Frequency	200	1.54	1.40
People in School Importance	197	2.04	.50

Pearson’s correlation coefficients for frequency and importance of social support are presented in Table 4.6. Significant, positive correlations were found between all sources of support for both frequency and importance.

Table 4.6

*Intercorrelations for Sources of Support*

Measure	Parent	Teacher	Classmate	Friends	People
<b>Frequency</b>					
Parent	1				
Teacher	.629***	1			
Classmate	.407***	.630***	1		
Friends	.255***	.445***	.411***	1	.
People School	.361***	.616***	.771***	.478***	1
<b>Importance</b>					
Parent	1				
Teacher	.705***	1			
Classmate	.385***	.411***	1		
Friends	.446***	.516***	.547***	1	.
People School	.445***	.486***	.785***	.626***	1

*Note.* \*\*\* $p < .001$

**Analysis of Research Question**

What is the relationship between nursing career perception congruence, perceived social support for nursing as a career and nursing career choice in Hispanic middle school girls?

## Hypothesis Testing

The measures for nursing career perception congruence, perceived social support for nursing as a career and nursing career choice were computed. Linear regression is the technique typically used to identify predictors. When the dependent variable is dichotomous logistic regression is better suited to the data than linear regression because the assumptions of linearity and equal variance required for linear regression are violated (Mertler and Vannatta, 2002). Like linear regression, logistic regression evaluates the relationship of several predictors to the dependent variable, but the interpretation of the regression coefficients is different. In logistic regression a good model is one in which the values for the predictors would generate a high likelihood of getting the observed results. Additional predictors improve the model if they significantly increase the likelihood of the observed results. Multinomial logistic regression was conducted to determine the extent to which the independent variables (nursing career perception congruence, frequency of perceived social support for nursing as a career from all sources, importance of perceived social support for a nursing career from all sources) were predictors of nursing career choice. Data screening identified outliers; however, the elimination of outliers did not substantively change the results.

## Hypotheses

**H1:** Hispanic middle school females with increased nursing career perception congruence will be more likely to choose nursing as a career.

A multinomial logistic regression was run to predict nursing career choice (NCC) based on nursing career perception congruence (NCPC). Model fit statistics reveal the model fits the data since the Hosmer-Lemeshow Goodness-of-Fit test is not significant (-2 Log Likelihood = 350.121 and Hosmer-Lemeshow Goodness-of-Fit,  $\chi^2(324) = 364.788, p = 0.059$ ). The Hosmer-

Lemeshow Goodness-of-Fit tests the null hypothesis there is a relationship between the predicted probabilities and the observed outcomes for nursing career choice. The proportion correctly predicted went from 46.6% with the constant only model to 47.7%. The odds ratio for nursing career perception congruence standardized was,  $OR = 3.402$ , 95%  $CI [1.616, 7.932]$  for reporting “will not pursue nursing” as opposed to “will pursue nursing”, indicating a medium effect size (Cohen, 1988). The odds ratio for nursing career perception congruence was,  $OR = 3.718$ , 95%  $CI [1.743, 7.932]$  for reporting “may pursue nursing” as opposed to “will pursue nursing”, also indicating a medium effect size (Cohen, 1988). In other words, the greater the career incongruence the greater the odds the student will not report that she will pursue nursing and the first hypothesis is supported.

**H2:** For Hispanic middle school females perceived support for nursing as a career will contribute to predicting nursing career choice over and above what is contributed by nursing career perception congruence.

A multinomial logistic regression was run to predict nursing career choice based on the importance and frequency of perceived support and nursing career congruence. Wald statistics indicated that nursing career perception congruence and importance of perceived social support significantly predict nursing career choice while the frequency of perceived social support did not significantly predict nursing career choice. The odds ratio for importance of perceived social support was,  $OR = 0.399$ , 95%  $CI [.211, .753]$  for reporting “will not pursue nursing” as opposed to “will pursue nursing”, indicating a medium effect size (Cohen, 1988). The odds ratio for nursing career perception congruence was,  $OR = .558$ , 95%  $CI [.306, 1.017]$  for reporting “may pursue nursing” as opposed to “will pursue nursing,” indicating a small effect size (Cohen, 1988). In other words the more important social support for nursing is the greater the odds the

student will report she will pursue nursing. Regression coefficients are presented in Table 4.7.

The null hypothesis that the predictors were not significantly related to nursing career choice was rejected and the second hypothesis was accepted.

Table 4.7

*Logistic Regression Analysis Summary for Predictors of Nursing Career Choice*

Variables	<i>B</i>	<i>SEB</i>	Wald	Significance (one-tail)	Odds Ratio
Will not pursue nursing					
Intercept	1.703	.340	25.095		
NCPC	1.313	.387	11.541	.001***	3.718
Frequency	.447	.347	1.665	.099	1.564
Importance	-.919	.324	8.050	.003**	.399
May pursue nursing					
Intercept	1.873	.336	31.016		
NCPC	1.224	.380	10.386	.001***	3.402
Frequency	.344	.330	1.089	.149	1.411
Importance	-.584	.306	3.633	.029*	.558

Note.  $df = 8$ ,  $-2 \text{ Log Likelihood} = 350.121$ ,  $X^2(6) = 28.39$ ,  $p < .001$ . ( $N = 193$ ).

\*\*  $p < .01$  \*\*\*  $p < .001$

Having established the importance of social support as a significant predictor of career choice, a multinomial logistic regression was conducted to determine which sources of social support significantly predict career choice. Wald statistics indicated only important social support from friends significantly predicted career choice (see Table 4.8).

Table 4.8

*Logistic Regression Analysis Summary for Sources of Social Support*

Variables	<i>B</i>	<i>SEB</i>	Wald	Significance (one-tail)	Odds Ratio
Will not pursue nursing					
Intercept	2.082	.434	23.039	.000	
NCPC	1.395	.437	10.179	.001	4.034
Parent Importance	.665	.431	2.380	.123	1.944
Teacher Importance	.147	.375	.154	.695	1.159
Classmate Importance	-.198	.506	.153	.696	.821
Friend Importance	-1.409	.446	9.969	.002	.244
People Importance	-.096	.529	.033	.856	.908
May pursue nursing					
Intercept	2.273	.431	27.826	.000	
NCPC	1.341	.430	9.721	.002	3.822
Parent Importance	.190	.417	.209	.648	1.210
Teacher Importance	.485	.362	1.794	.180	1.625
Classmate Importance	-.212	.493	.185	.667	.809
Friend Importance	-1.117	.435	6.595	.010	.327
People Importance	.074	.516	.021	.866	1.077

Note.  $df = 12$ ,  $-2 \text{ Log Likelihood} = 333.628$ ,  $\chi^2(6) = 44.885$ ,  $p < .001$ . ( $N = 193$ ).

A significant negative correlation,  $r = -.26$ ,  $p < .001$  between nursing career perception congruence and the importance of support from all sources suggests the greater the disparity between nursing and an ideal career the less important is social support from all sources. A significant negative correlation,  $r = -.19$ ,  $p = .004$ , between career congruence and the importance of support from friends also indicates the greater the disparity the less important is social support from friends (Table 4.9). These negative correlations suggest that the importance of perceived social support for nursing as a career was based on an objective assessment of a nursing career's suitability for the participant.

Table 4.9

*Correlation of Nursing Career Congruence and Importance of Social Support by Source*

Measure	Disparity	All Sources	Friends
NCPC	1		
Importance all sources	-.264***	1	
Friends' Importance	-.190**	.790***	1

Note. \*\*  $p < .01$  \*\*\* $p < .001$

**H3:** In predicting career choice for Hispanic middle school females, there is a positive interaction between nursing career perception congruence and perceived social support for nursing as a career. Specifically, better nursing career perception congruence increases the effect of perceived social support for nursing as a career.

A multinomial logistic regression analysis was conducted in order to determine the extent to which nursing career perception congruence and perceived social support for nursing as a career predict nursing career choice in Hispanic middle school females. The analysis also explored a possible interaction between nursing career perception congruence and perceived social support for nursing as a career, to determine whether nursing career perception congruence moderates the relationship between social support and nursing career choice. Model fit statistics reveal the model fits the data since the Hosmer-Lemeshow Goodness-of-Fit test is not significant (-2 Log Likelihood = 347.281 and Hosmer-Lemeshow Goodness-of-Fit,  $\chi^2(324) = 385.888$ ,  $p = 0.10$ ). The Hosmer-Lemeshow Goodness-of-Fit tests the null hypothesis there is a relationship between the predicted probabilities and the observed outcomes for nursing career choice. The proportion correctly predicted went from 46.6% with the constant only model to 50.8%. Wald statistics indicated the interaction was only significant for “will not pursue nursing” as opposed

to “will pursue nursing”. The odds ratio for the interaction was,  $OR = 1.978$ , 95%  $CI [1.079, .3.624]$ , indicating a small effect size (Cohen, 1988) (Table 4.10).

Table 4.10

*Regression Statistics for Predictors and Interaction on Nursing Career Choice*

Variables	<i>B</i>	<i>SEB</i>	Wald	Significance (one-tail)	Odds Ratio
Will not pursue nursing					
Intercept	1.764	.330	28.551	.000	
NCPC	1.230	.368	11.136	.001	3.240
All Importance	.356	.304	1.450	.228	.694
Interaction	.682	.309	4.867	.027	1.978
May pursue nursing					
Intercept	1.905	.327	33.965	.000	
NCPC	1.084	.358	9.165	.002	2.958
All Importance	.091	.295	.095	.757	.913
Interaction	.487	.297	2.697	.101	1.628

Note.  $df = 6$ ,  $-2 \text{ Log Likelihood} = 347.281$ ,  $\chi^2 (6) = 31.233$ ,  $p < .001$ . ( $N = 193$ ).

Having established the importance of social support from all sources significantly interacts with nursing career perception congruence, a multinomial logistic regression was conducted to determine if the importance of support from friends in particular significantly interacts with nursing career perception congruence to predict career choice. Wald statistics indicated the importance of social support from friends did not significantly interact with nursing career perception congruence, see Table 4.11. Apparently the importance of social support from any one source was too weak to yield statistical significance. In other words, when looking at the interaction effect of NCPC and PSSNC, the effect of any individual group (i.e. friends) was too weak, but when combined as a whole, PSSNC significantly interacted with career congruence.

Table 4.11

*Logistic Regression Statistics for Friends Support and Interaction with Career Congruence*

Variables	<i>B</i>	<i>SEB</i>	Wald	Significance (one-tail)	Odds Ratio
Will not pursue nursing					
Intercept	1.843	.386	22.805	.000	
NCPC	1.226	.421	8.494	.004	3.407
FriendImportance	-1.039	.363	8.173	.004	.354
NCPCxfriendImportance	.115	.409	.079	.779	1.122
May pursue nursing					
Intercept	2.038	.382	28.441	.000	
NCPC	1.124	.414	7.368	.007	3.076
FriendImportance	.690	.355	3.784	.052	.502
NCPCyxfriendImportance	.079	.400	.039	.843	1.082

Note.  $df = 6$ ,  $-2 \text{ Log Likelihood} = 303.806$ ,  $\chi^2 (6) = 35.576$ ,  $p < .001$ . ( $N = 194$ ).

**Additional Analysis**

Chi-square analysis was conducted to examine the relationship between nursing career choice and having a close friend/relative that is a nurse (Table 4.12). Females who had no close friends or relatives in nursing were more likely to report they will not pursue nursing,  $\chi^2 = 11.63$ ,  $p = .003$ . For this sample, having a friend or family member who was a nurse increased the likelihood that a Hispanic middle school female may choose nursing as a career.

Table 4.12

*Relationship of Nursing Friend/Relative and Nursing Career Choice*

Friend/Relative	Will Not Pursue Nursing	May Pursue Nursing	Will Pursue Nursing	Total
No Nurse	41 ( 53.2%)	25 ( 32.5%)	11 (14.3%)	77 (100%)
Nurse	37 (31.4%)	67 (56.8%)	14 (11.9%)	118 (100%)
Total	78 (40.0%)	92 (47.2%)	25 (12.8%)	195 (100%)

**Summary of Results**

In response to this study's research question and hypotheses, this chapter presented quantitative findings from a convenience sample of Hispanic middle school females. Nursing career perception congruence and the importance of perceived social support for nursing as a career significantly predicted nursing career choice while the frequency of social support was not a significant predictor. This was true for social support from all sources and for social support from friends in particular. The effect of perceived social support from all sources for nursing as a career decreased when nursing career perception congruence decreased. In other words nursing career congruence moderated the relationship between nursing career choice and the importance of social support from all sources. There was no moderating effect for social support from friends. Additional analysis indicated that having a nurse as close friend or relative decrease the proportion of girls who reported they would not choose a nursing career. Chapter V consists of a discussion of these quantitative results.

## **Chapter V**

### **Discussion**

The purpose of this research study was to examine the relationship between the dependent variable nursing career choice and the independent variables nursing career perception congruence and perceived social support for nursing as a career. It was hypothesized that perceived support for nursing as a career would moderate the relationship between nursing career perception congruence and nursing career choice. These relationships were tested utilizing multinomial logistic regression with self-reported data collected via survey from a convenience sample of Hispanic Middle School females ( $N = 200$ ). There is currently little empirical evidence that links nursing career choice with nursing career perception congruence and perceived social support for nursing as a career in the Hispanic population.

Descriptive correlational design using surveys of nursing career choice (NCC) nursing career perception congruence (Attitudes, Values and Beliefs Scale, 1991) and perceived social support for nursing as a career (CASSS, 2000) were utilized. This chapter focuses on study findings and interpretations. Three areas of discussion are presented including: (1) background, (2) summary of study research findings for each hypothesis and (3) conclusions. The study provides inferences about the relationships among these variables and implications for nursing career choice.

### **Background**

The purpose of this study was to examine the relationship of nursing career perception congruence and perceived social support for nursing as a career on Hispanic Middle school females. A non-experimental descriptive, cross sectional design examined the relationship in a convenience sample of 200 Hispanic middle school females from the New York tri-state area.

Instruments used to measure nursing career choice, nursing career perception congruence and perceived social support for nursing as a career, were: (1) *the Nursing Career Choice Scale (NCC)*; (2) *the Attitudes, Values and Beliefs Scale (AVBS)*, and (3) *the Child and Adolescent Social Support Scale (CASSS)*. Logistic regression analysis indicated support for the relationship between all variables. There was a positive direct relationship between nursing career choice and nursing career perception congruence and a positive significant relationship between perceived social support for nursing as a career and nursing career choice. In addition, perceived social support for nursing as a career did moderate the relationship between nursing career perception congruence and nursing career choice. The conceptual framework of Social Cognitive Career Theory revealed that nursing career perception congruence and social support for nursing as a career is needed to promote Hispanic middle school females nursing career choice. Nursing career choice, nursing career perception congruence and, perceived social support for nursing as a career are contextual factors that impact the recruitment of culturally diverse nurses. These factors, properly promoted and implemented, lead to a more culturally responsive nursing workforce.

The aim of this study was to explore the relationship between Hispanic middle school females nursing career choice, nursing career perception congruence, and perceived social support for nursing as a career. This study found a significant positive correlation between nursing career perception congruence and nursing career choice. There was also a significant positive correlation between perceived social support for nursing as a career and nursing career choice.

### **Summary of Study Findings**

This section of chapter five presents a discussion of the study findings. Each of the hypotheses will be presented followed by an interpretation of the results related to the literature review.

#### **Nursing Career Choice**

Among the Hispanic middle school females in this study 46% ( $n = 92$ ) reported they may choose nursing as career. These results were similar to a recent study by McQueen & Zimmerman (2013) where 33% of Hispanic middle school females considered choosing nursing as a career. Having a friend or family member who was a nurse increased the likelihood that the participants may choose nursing as a career. However, there was no relationship between hospitalization of themselves and and/or a family member, their parents' highest education level, or their self-reported GPA to choosing nursing as a career.

#### **Nursing Career Perception Congruence and Nursing Career Choice**

The first hypothesis examined was: Hispanic middle school females with higher nursing career perception congruence will be more likely to choose nursing as a career.

The HMSFs in this sample ( $N = 200$ ) overall did not have a high nursing career perception congruence. In other words, many of them did not view characteristics of nursing as a career to be compatible with the characteristics they desired in their ideal career. The total NCPC (Attitudes, Values & Beliefs Scale) mean score for this sample was 14.20 out of 37 with a standard deviation of 0.5.455. In this study, a lower score demonstrated higher NCPC. Previous studies have compared individual item responses on the two scales of the Attitudes, Values & Beliefs Scale (Ideal Career Scale and Nursing Career Scale). For example, a comparison in ranking was made between the ideal career scale's ranking of "in my ideal career I want to make

a lot of money” was compared to the nursing career scale’s statement “nurse make a lot of money”. In this study, the individual perceived differences between the ideal career and a nursing career (i.e “I want to make a lot of money” versus “Nurses make a lot of money”) were not studied. Nursing career perception congruence was calculated as an overall absolute perceived difference between the ideal career and nursing as a career. This is the first time this tool by May et al., (1998) has been operationalized in this way. However, the HMSFs in the present study had similar results as reported in other samples of middle school students (Cohen et al., 2004; Heller & Nichols, 2001; Spear, 2003) in that they viewed a nursing career as different from their ideal career.

Analysis revealed the greater the incongruence between the ideal career and a nursing career, the greater the odds that the participant would not choose “will choose nursing” or “may choose nursing” as a career. The data analysis showed a relationship between nursing career perception congruence and nursing career choice. As NCPC increased (as evidenced by a lower NCPC score) HMSFs were more likely to report that they “may” choose nursing as a career. Nursing career perception congruence was a predictor of increased nursing career choice in this research “may choose nursing”, ( $OR = 3.718, 95\% CI [1.743, 7.932]$ ). As theorized, in this population of HMSFs, nursing career perception congruence positively influences their nursing career choice.

### **Perceived Social Support for Nursing as a Career and Choice of Nursing as a Career**

The second hypothesis examined was: Hispanic middle school females with increased perceived support for nursing as a career will contribute to nursing career choice over and above what is contributed by nursing career perception congruence.

Perceived social support for nursing as a career contributed to Hispanic middle school females' nursing career choice. Perceived social support for nursing as a career emerges from multiple sources (parents, teachers, close friends, classmates, and school) and consists of multiple types (emotional, informational, appraisal, and instrumental) (Malecki et al., 2004). Support is also quantified into frequency (how often) and the importance placed on that source of support. All these aspects of support contribute to a student's ability to choose a suitable career.

The total Child and Adolescent Social Support Scale (CASSS) mean score for this sample was 2.05279 out of 3.746 with a standard deviation of .950869 (frequency) and 1.393 out of 3.139 with a standard deviation of .372940 (importance). The frequency of perceived social support for nursing as a career did not prove to be significant. In other words, a source of social support may be telling a HMSF to choose nursing as a career but if the HMSF does not value the source, then this will not influence nursing career choice. However, the importance of perceived social support for nursing as a career (PSSNC) has a positive significant relationship with nursing career choice and was a predictor of choosing nursing as a career in this research. HMSFs with increased perceived social support for nursing as a career were more likely to choose nursing as a career in this study. Overall social support (importance) was related to HMSFs nursing career choice, when the components of social support were broken down into groups (parents, teachers, classmates, friends, and people in my school) only support from friends was significant.

Given that perceived social support for nursing as a career from friends was important, it is important to look at the types of support that were significant. Malecki et al.,(2004) separated the types of support into four categories: emotional, informational, appraisal, instrumental. The type of support that was significant from friends was appraisal support and instrumental support.

Appraisal support is offering evaluative feedback, and instrumental support refers to helpful behaviors (Malecki et al, 2004). A negative correlation between nursing career perception congruence and both importance of support from all sources ( $r(196) = -.264, p < .001$ ) and importance of support from friends ( $r(197) = -.190, p < .004$ ), showed that social support for nursing as a career was important, but the greater the nursing career perception congruence score (indicating less NCPC), the less importance the participant attached to the social support. In other words, if the participant did not feel that a nursing career was anywhere near her definition of an ideal career, no amount of social support would make a difference. Social Cognitive Career Theory also emphasizes that an individual has a degree of personal agency with regard to social support. This premise of SCCT draws on the concepts of Vondracek, Lerner, and Schullenberg's (1986) developmental-contextual theory which posits that perceived social support affects career choice only if the individual recognizes, welcomes, and responds to it. So there needs to be support for a nursing career for a Hispanic female but she must also identify, embrace, and react to the support offered in a positive way in order to choose nursing as a career.

Results from this study were clear that perceived social support for nursing as a career PSSNC was significant to nursing career choice in Hispanic middle school females. Studies have also determined that the opinions of nursing held by family, guidance counselors, role models and, especially peer, are a significant influence on the teens' opinions (Buerhaus et al., 2005; Shattell, Moody, Hawkins, and Creasia, 2001).

Investigating the effect of social support on choice of nursing as a career is particularly important in middle school Hispanic females because of the many barriers they face. The National Advisory Council on Nurse Education and Practice (2000) reports these barriers can be

identified as both personal (i.e. language issues, financial constraints, inadequate professional career guidance, inadequate educational preparation), and institutional (poor image of nursing, lack of mentoring programs, lack of minority faculty, restrictive admission policies). Social support networks can act as a buffer against these barriers (Gillock & Reyes, 1999; Malecki, Demaray, & Elliot, 2004). Adolescents who have higher levels of connection to peers are more likely to engage in environmental exploration and make career choices, suggesting that supportive, close friendships aid the career development tasks of adolescence (Felsman & Blustein, 1999; Kracke, 2002).

### **Perceived Social Support for Nursing as a Career as a Moderator**

The third hypothesis examined was: Nursing career perception congruence in the presence of perceived social support for nursing as a career will predict career choice in Hispanic middle school females. Specifically, higher perceived social support increases the effect of nursing career perception congruence on nursing career choice.

Nursing career perception congruence was a moderator in the relationship between nursing career choice and perceived social support for nursing as a career. However, this interaction was only significant for “will not pursue nursing” as opposed to “will pursue nursing”. In this population of HMSF, perceived social support for nursing as a career influences nursing career choice when there is higher congruence with nursing career perception. If nursing career perception congruence was too low, perceived social support for nursing as a career did not influence nursing career choice. So, if a Hispanic middle school female does not feel that a nursing career is suited for her, the amount of social support for nursing as a career she perceives will not influence her choice of nursing as a career.

The importance of social support from all sources significantly interacts with nursing career perception congruence to influence nursing career choice. However in this interaction, the importance of social support from friends did not significantly interact with nursing career perception congruence. The importance of social support from any one source was too weak to yield statistical significance. The literature reports that multiple sources of social support are influential when choosing nursing as a career. Particularly, support from parent, family, peer, and teacher groups have been found to be significant in predicting career choice (Bluestein, Juntunen, Worthington, 2000; Phillips Christopher, Lisi, 2001; Schultheiss, Kress, Manzi, Glasscock, 2001). In Hispanic youth, Ali, McWhirter, and Chronister (2005) reported that friends and siblings were more influential than parents in nursing career choice. Flores and O'Brien (2002) asserted that parental support directly predicted career aspirations in Mexican American women. Finally, in a study conducted by Buerhaus, Donelan, Norman, and Dittus, (2005) 65 % of respondents identified support from practicing nurses as a factor that positively influenced their decision to become a nurse, and nearly 50 % agreed that support from friends, parents, and other family members had a positive influence on their decision to pursue nursing a career. Nursing career perception congruence and perceived social support for nursing as a career contributed to nursing career choice.

### **Additional Analysis**

In this study, participants were asked if they had a close friend or relative that was a nurse. It is possible that having a close friend or relative could exert a difference in HMSF nursing career perception congruence, perceived social support for nursing as a career and nursing career choice. For this sample, having a friend or family member who was a nurse increased the likelihood that a Hispanic middle school female may choose nursing as a career.

This similar effect was also observed by Beck, 2000; Gregg & Magilvy, 2001; Larsen, et al., 2003; Kohler & Edwards, 1990; Porter, Edwards, & Granger, 2009; Sattell, Moody, Hawkins, & Creasia, (2001) when looking at the factors influencing career choice of nursing.

### **Theoretical Implications**

In this study, two significant logistic correlations were demonstrated. Nursing career choice and nursing career perception congruence were positively related. Perceived social support for nursing as a career and nursing career choice were also positively related. Both of these findings were consistent with the proposed theoretical model and previous literature. Social Cognitive Career Theory (1994) was developed to explain how career interests develop; how career choices progress; and finally, how career choices are attained. The main assumption of SCCT is based on the connection between personal, cognitive, and environmental parameters (Lent, Brown & Hackett, 1994, 2002). Specifically, the present study focuses on individuals' career perceptions (i.e. nursing career perception congruence) and how these career perceptions are enhanced or constrained by other variables (perceived social support for nursing as a career) and thus result in career choice (i.e. nursing career choice) (Lent et al., 1994). In other words, this study supported choice of career which is consistent with the SCCT model that links perceptions of careers to career choice only in the presence of contextual variables acting as moderators.

According to Lent et al., (2002) career choice is one's intention, plan, or aspiration to engage in a particular career (Lent et. al., 1994). People tend to develop interest in careers that are compatible with their perceived abilities and their desired outcomes (Lent et al., 2002). A person may develop an interest in a nursing career based on their perception that they could do what it is they think a nurse does and would like to accrue the benefits they perceive come with

being a nurse. This would correlate with high nursing career perception congruence. However, Lent et al. (1994) also asserted that career perceptions are not enough to totally influence career choices. Lent et al. (2002) linked perceptions to career choices only in the presence of contextual variables acting as moderators. In this study, perceived social support for nursing as career acted as moderator between nursing career perception congruence and nursing career choice.

Social Cognitive Career Theory holds true for HMSFs' decision to either choose or not choose nursing as a career. Hispanic middle school females mentally try on different careers to judge the "fit" between their abilities and their expectations of what the ideal career will afford and what they see as the necessary abilities and rewards of a particular career. Lent et al.'s (1994) concept of career interest can be seen as a congruency between perceptions of the ideal career and a nursing career or NCPC. May and colleagues (1988) propose that if one's perceptions of the characteristics of the ideal career are congruent with one's perceptions of nursing as a career then the individual is more likely to choose nursing as a career than if the characteristics of their ideal career were not congruent with perceived characteristics of a nursing career. Thus, high nursing career perception will lead to increased nursing career choice.

However, even if a youngster's perception of their ideal career is highly congruent with their perception of nursing as a career this is not enough to solely determine choice of nursing as a career. Lent and colleagues (2002) asserted that contextual variables such as support for one's career interests moderate the relation between career interests and career choice. In this study, perceived social support for nursing acted as a contextual variable that moderated the relationship between nursing career perception congruence and increased nursing career choice. Hispanics place a high value on family and community for support (Keefe, Padilla, & Carlos,

1979; Marin & Marin, 1991). Flores and O'Brien (2002) asserted that parental support directly predicted career aspirations in Mexican American women. In the present research context, social support for one's interest in nursing as a career was the contextual variable moderating the relation between nursing career perception congruence and choice of nursing as a career.

### **Relationship between Nursing Career Perception Congruence, Perceived Social Support for Nursing as a Career and Nursing Career Choice**

The study research question of relating nursing career perception congruence, perceived social support for nursing as a career and nursing career choice on Hispanic middle school females was measured by correlations and regression models using the mean scores on the Attitudes, Values and Beliefs Scale and the Child and Adolescent Social Support Scale. This is the first study to examine the relationship between these variables in a sample of Hispanic middle school females. The findings from this present study support a positive relationship between nursing career perception congruence and nursing career choice and between perceived social support for nursing as a career. Hispanic middle school females, who had higher nursing career perception congruence, were more likely to consider choosing nursing as a career. Previous studies have supported a positive relationship between the Attitudes, Values, and Beliefs Scale and nursing career choice (Cohen, 2004; Degazon and Shaw, 2007; May et al., 1998; Tomey, Schwier, Marticke, and Austin, 1996)

### **Summary**

The need for a diverse nursing workforce is growing, and understanding the important components of choosing a career in minority populations is an essential component to recruiting more Hispanics to a nursing career. Hispanic middle school females and those who support them need to be made more aware about all of the rewards and benefits of a nursing career. This will

lead to more HMSFs choosing nursing career, and better care for a diverse world. Chapter V included a discussion of the study findings and interpretation, theoretical perspective related to study variable and a synopsis of the chapter. The following Chapter VI consists of a discussion of implications for education and practice, future research and conclusions.

## Chapter VI

### Implications and Recommendations

Middle school Hispanic females are part of the fastest growing population in the United States. Hispanics who currently make up 16.7% of the US population are projected to make up 30% of the population in 2030 (US Census, 2012). This study described the relationship between nursing career perception congruence, perceived social support for nursing as a career, and nursing career choice in a sample of Hispanic middle school females. Statistically significant study findings were revealed. The following conclusions were made regarding the HMSF sample studied.

1. A positive direct relationship exists between nursing career choice and nursing career perception congruence.
2. A positive direct relationship exists between nursing career choice and perceived social support for nursing as a career.
3. Perceived support for nursing as a career moderates the relationship between nursing career perception congruence and nursing career choice.
4. A close friend or relative that was a nurse increased the likelihood of choosing a nursing career.

The HMSFs in this study developmentally have begun to investigate career choices and contemplate their future career plans. Nursing career perception congruence and perceived social support for nursing as a career are essential to assist HMSF to choose a career in nursing. A HMSF who is educated about a nursing career can develop nursing career perception congruence which increases her likelihood of choosing nursing as a career. Additionally, perceived social support for nursing as a career further increases the likelihood of HMSFs

choosing nursing as a career. In turn, each HMSF who chooses nursing as a career is an excellent role model for other Hispanics to pursue nursing as a career and be a mentor for her friends and family about nursing as a career.

The findings of this study are relevant for nursing recruitment practices today. This was the first study to explore the relationship between nursing career choice, nursing career perception congruence and perceived social support for nursing as a career in Hispanic middle school females (HMSF). In addition, this was the first study to utilize The Attitudes, Values, and Beliefs Scale (May et al., 1988) to create an absolute difference score to measure overall feelings towards nursing as a career versus the ideal career. Hispanic middle school females are essential to the future of nursing; the nursing profession needs more diversity in its ranks. Nursing recruitment needs to target this important group earlier (middle school) and more effectively through multifaceted approaches. Increasing nursing career perception congruence involves early education about all the exciting options and opportunities that a nursing career has to offer. This education needs to be disseminated to not only HMSF but their community at large (i.e. parents, teachers, friends, guidance counselors, and community leaders) to foster the important social support component. The literature cites a variety of programs including shadowing a nurse, workshops, videos, lectures presentations, and summer camp experiences that have been used to introduce middle school students to nursing as a career (Balogun, Sloan & Hardney, 2005; Cohen et al., 2006; Hoke, 2006; Knight, et al., 2011; Matutina, 2008; Randall, 2002; Redding, Riech, & Prater, 2004). More of these programs need to be put in place to help HMSF become knowledgeable and excited about nursing as career, and facilitate the choice of nursing as a career.

The strong relationship between perceived social support and nursing career choice is also important for recruitment of HMSF. This type of support can be fostered by providing the similar education opportunities for the groups that lend support to HMSF such as parents, teachers, guidance counselors, community leaders etc. This chapter presents the investigator's critique of the study, implications for nursing education, practice, future research recommendations, as well as study conclusions.

### **Critique of the Study**

Several limitations should be considered when interpreting the findings of this study. A convenience sample ( $N = 200$ ) was used with data collected through a self-report and may not be representative of all Hispanic middle school females; therefore the generalizability of the finding may be limited. The participants were all female, which is reflective of the majority of females in the nursing profession (Auerbach, Staiger, Muench, & Buerhaus, 2012; NSSRN, 2008).

Second, the sample population of Hispanic middle school females came from parochial schools in a specific geographic area, and may not be completely representative of the population of HMSF. The parochial schools selected for this research were chosen based on their willingness to participate. To increase the generalizability of this study, the study would need to be replicated in other sites with a growing Hispanic population. Also having to obtain a parental consent form every HMSF that participated posed a challenge and decreased the number of participants.

Third, because the sample size was small, there was increased potential not to achieve significance in the correlations. Studies with smaller sample sizes may not be able to achieve the power required to detect a relationship or effect (Polit & Beck, 2008). Lastly, the Attitudes, Values and Beliefs Scale have not been used before as an overall representation of nursing career

perception congruence. The instrument demonstrated more than adequate reliability (0.88) in this new research group. In addition, the instrument correlated with all study variables.

### **Implications for Practice**

#### **Implications for Recruitment**

The important relationship between nursing career perception congruence, perceived social support for nursing as a career and nursing career choice should inform nursing leadership regarding the recruitment of future Hispanic nurses. The American Academy of Colleges of Nursing (AACN) recognizes that the population of the United States is rapidly becoming and will continue to become more diverse into the 21st century. As a result of this trend, diversity and inclusion have become central issues for higher education. Nursing needs to respond to these issues by finding ways to step up the recruitment of groups, cultures, and ideas that traditionally have been underrepresented in higher education. The nursing profession should reflect and value the diversity of the populations and communities they serve (AACN, 2013).

In the specific context of nursing workforce diversity, the first step to the successful recruitment of more Hispanics is active and early promotion of nursing as a career to increase their knowledge about all the wonderful aspects and opportunities that a nursing career has to offer. A consistent challenge noted on the literature is the lack of knowledge and interest in young people from racial and ethnic minority groups in nursing as a profession (Donelan, Buerhaus, Desroches, Dittus, & Dutwin, 2008). Increased knowledge about nursing as a career will increase nursing career perception congruence. In other words, more education about all the opportunities a career in nursing affords can make a nursing career more attractive to Hispanic females. Increasing nursing career perception congruence will increase the likelihood of nursing career choice.

Recruitment into nursing needs to start earlier, and provide information and support to students who are Hispanic to encourage and assist them in planning for a career in nursing. Recruitment activities need to educate middle school students and their support systems to the processes not only of preparing and applying to college, but also to successfully navigating the college environment/nursing program until successful graduation as a nurse.

The Attitudes, Values & Beliefs Scale (AVBS) that measured Nursing Career Perception Congruence (NCPC) can be used starting in middle school as a career screening and advising tool for students, particularly those who might be considering a healthcare or nursing career. The instrument is relatively short and easy to administer, and provides initial feedback for a student in the career decision-making process. This questionnaire could be provided to middle school students, high school students and even college freshmen to assist students in making career choice decisions. Students with high nursing career perception congruence could be counseled and encouraged to pursue nursing as a career by guidance counselors, teachers, parents, or nurses.

Another important strategy to increase nursing career choice is real-life exposure to nurses and nursing practice. Professional nursing organizations, schools of nursing and local hospitals, could provide an opportunity for students to ‘meet’ real nurses and nursing students either through social media or in-person to further explore nursing as a career option and access additional information. Having access to a variety of nurses and nursing roles could also assist career exploration and choice for students broadly interested in science and/or health professions. Career fairs/career days with practicing nurses from a variety of health arenas and practice specializations are another strategy to increase awareness. Mentoring programs could be established for prospective Hispanic nursing students. School nurses could also provide a source

of career information for students; providing both formal and informal learning about the nurses' role for students with an interest in nursing and health care.

The public is also not truly aware about what nurses really do, and the many different career options (nursing faculty, nurse practitioner, travel nurse) the compensation for their work, the potential for career advancement in nursing, and the existence of advanced clinical and leadership roles within the profession (Campbell-Heider et al., 2008; Donelan et al., 2008). More public education campaigns such as Johnson & Johnson's, The Campaign for Nursing's Future, need to highlight career advancement opportunities in the profession to minority populations to contribute to nursing workforce and workforce diversity goals and also increase social support for nursing as a career. Increased knowledge about nursing and increased support for nursing as a career will increase the numbers of HMSF that will choose nursing as a career.

The successful recruitment and retention of more Hispanics nurses will address the United States Department of Health & Human Services National Goal I regarding health disparities. National Goal 1 is to improve access to quality health care through appropriate preparation, composition, and distribution of health professionals (Department of Health & Human Services, 2010). By increasing recruitment and admission of diverse students by focusing on the needs of students in middle school to help them prepare early, more Hispanics will enter nursing school and graduate as nurses.

The Hispanic population will greatly benefit from more nurses that look and sound like they do; nurses who understand the intricacy of Hispanic culture because it is their own culture. Increasing the number of Hispanic nurses that are prepared to care for the complex needs of the a population that is often economically disadvantaged and underserved and flush with chronic debilitating disease such as diabetes, hypertension and heart disease will benefit the Hispanic

community. Hispanic nurses who are able to think critically and problem solve based on their cultural background will enhance the quality of care for all of their patients and make healthcare more understandable and more accessible for all Hispanics.

### **Recommendations for Further Research**

After reviewing the results of this study, some recommendations for further research can be made. Administration of the survey tool to larger samples of Hispanic females with purposive sampling from different geographic areas would improve generalizability of the findings.

Administration of the research survey tool to larger and more diverse populations including Hispanic middle school males would provide further evidence of reliability and validity. A comparison study with high school freshmen and college freshmen could be done. Such a study might demonstrate differences in perceptions that occur during adolescence and determine if Hispanic females would respond differently when they are closer to making a career decision.

Interventional studies could be undertaken to determine the effectiveness of current recruitment materials on perceptions of nursing as a career choice among Hispanic middle school females. In particular, recruitment materials such as those developed by the Johnson & Johnson Campaign for Nursing's Future could be shown to a group of Hispanic middle school females. Comparison of perceptions between the intervention group and a control group would demonstrate the effectiveness of these materials. Other recruitment strategies might also be employed in interventional studies, such as a presentation to Hispanic middle school females by young Hispanic nurses about the opportunities and rewards in the nursing profession.

### **Conclusions**

This study provided insight into nursing career choice of Hispanic middle school females. As the shortage of Hispanic Registered Nurses (RNs) escalates, threatening the health of our

diverse nation, it is imperative that strategies are developed to increase the supply of Hispanic professional nurses. Increasing the interest of Hispanic females in the nursing profession is especially necessary to combat the nursing shortage, as more young women are attracted to a variety of other career options.

This study provided further support for Lent, Brown & Hacketts (1994) Social Cognitive Career Theory. It contributes to previous knowledge about the relationships of career perceptions and how these career perceptions are enhanced or constrained by other variables (i.e. social support) and results in career choice. May and colleagues (1988) propose that if one's perceptions of the characteristics of the ideal career are congruent with one's perceptions of nursing as a career then the individual is more likely to choose nursing as a career than if the characteristics of their ideal career were not congruent with perceived characteristics of a nursing career. Finally, Lent and colleagues (2002) asserted that contextual variables such as support for one's career interests moderate the relation between career interests and career choice (Lent, Brown & Hackett, 2002)

Previous research on nursing as a career choice for has not focused sufficiently on minority groups, especially Hispanics. This study identified specific facilitators (high nursing career perception congruence, high social support for nursing as a career) and barriers (low nursing career perception congruence, lack of social support for nursing as a career) for Hispanic middle school females to consider nursing as a career choice. This information can be used to develop recruitment strategies aimed at this important demographic group as well as to further analyze the root causes of these perceptions. Solving the Hispanic nursing shortage will require a multifaceted approach addressing both the future nurse and her support systems

## APPENDICES

### Appendix A Demographics Sheet

#### GENERAL INFORMATION:

1. My age is \_\_\_\_\_
2. I am a GIRL \_\_\_\_\_ BOY \_\_\_\_\_
3. I am in the \_\_\_\_\_ grade at school
4. My grade average is A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_ D \_\_\_\_\_ F \_\_\_\_\_
5. I am (select all that apply)
  - \_\_\_\_\_ African American or Black
  - \_\_\_\_\_ American Indian or Alaskan Native
  - \_\_\_\_\_ Asian
  - \_\_\_\_\_ Native Hawaiian Pacific Islander
  - \_\_\_\_\_ Two or More Races
  - \_\_\_\_\_ Hispanic or Latino
  - \_\_\_\_\_ White not Hispanic
6. Do you think you will go to college \_\_\_\_\_ Yes \_\_\_\_\_ No
7. Do you have a close friend or relative that is a nurse \_\_\_\_\_ Yes \_\_\_\_\_ No
8. Have you or a family member been a patient in the hospital in the past year?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

#### FAMILY INFORMATION

1. Highest Level of education obtained by parent/guardian in the household
  - \_\_\_\_\_ Less Than High School Graduate
  - \_\_\_\_\_ High School Graduate
  - \_\_\_\_\_ Some College Work
  - \_\_\_\_\_ Bachelors Degree
  - \_\_\_\_\_ Some Graduate Work
  - \_\_\_\_\_ Graduate Degree
2. What language do you speak at home?
  - \_\_\_\_\_ Speak only English
  - \_\_\_\_\_ Speak a language other than English

**Appendix B-D**

**SURVEY INSTRUMENTS**

Attitudes, Values & Beliefs Scale

When I'm an adult, it will be important to my career that I....For each statement **circle the answer** that best describes how you feel.

1. always have a job	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
2. use my brain a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
3. care for people	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
4. am appreciated	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
5. know a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
6. work very hard	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
7. make a lot of money	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
8. go to college	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
9. work with my hands a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
10. work in safe places	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
11. am a leader	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
12. make decisions for myself	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
13. be very busy	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
14. be very powerful	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
15. make good grades	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
16. have respect	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
17. work with high technology a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE

Attitudes, Values & Beliefs Scale

Below are 17 statements **about nurses**. For each statement **circle the answer** that best describes how you feel about nurses.

1. Nurses will always have jobs	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
2. Nurses use their brains a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
3. Nurses are caring people	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
4. Nurses are appreciated	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
5. Nurses know a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
6. Nurses work very hard	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
7. Nurses make a lot of money	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
8. Nurses have a college degree	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
9. Nurses work with their hands a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
10. Nurses work in safe places	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
11. Nurses are leaders	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
12. Nurses make decisions for themselves	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
13. Nurses are very busy	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
14. Nurses are very powerful	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
15. Nurses need good grades	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
16. Nurses are respected by others	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
17. Nurses work with high technology a lot	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE

## Appendix C

### Career Choice Scale

Please use the following scale to decide how you would rate your career decision to be a nurse.  
Please circle your choice.

1. I will not pursue a career in nursing
2. I may pursue a career in nursing
3. I will pursue a career in nursing

Appendix D

**CHILD AND ADOLESCENT SOCIAL SUPPORT SCALE - CASSS**

AGE: \_\_\_\_\_

GRADE: \_\_\_\_\_

MALE or FEMALE (circle one)

RACE (circle one)

- 1 – African American
- 2 – Asian American
- 3 – White
- 4 – Hispanic American
- 5 – Native American
- 6 – Other

On the next three pages, you will be asked to respond to sentences about some form of support or help that you might get from either a parent, a teacher, a classmate, a close friend, or people in your school. Read each sentence carefully and respond to them honestly. There are no right or wrong answers. For each sentence you are asked to provide two responses. First, rate how often you receive the support described and then rate how important the support is to you. Below is an example. Please read it carefully before starting your own ratings.

	How Often ?						Important ?		
	Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important
My Teacher(s) helps me solve problems.	1	2	3	4	5	6	1	2	3

In this example, the student describes her 'teacher helps me solve problems' as something that happens 'some of the time' and that is 'important' to her.

Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!

				How Often ?						Important ?			
				Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important	
<b>My Parents</b>													
E	I	A	I	My Parent(s)...									
				1. ...show they are proud of me if I chose a career like nursing	-2	-1	1	2	3	4	1	2	3
				2. ...understand my thoughts and feelings about choosing a career.	-2	-1	1	2	3	4	1	2	3
				3. ...listen to me when I need to talk about choosing a career.	-2	-1	1	2	3	4	1	2	3
				4. ...make suggestions when I don't know what career I want to choose.	-2	-1	1	2	3	4	1	2	3
				5. ...give me good advice about choosing a career.	-2	-1	1	2	3	4	1	2	3
				6. ...help me solve problems by giving me information about careers	-2	-1	1	2	3	4	1	2	3
				7. ...tell me I did a good job when I did something well.	-2	-1	1	2	3	4	1	2	3
				8. ...nicely tell me when I make mistakes.	-2	-1	1	2	3	4	1	2	3
				9. ...reward me when I have done something well.	-2	-1	1	2	3	4	1	2	3
				10. ...help me practice things that will help me choose a career.	-2	-1	1	2	3	4	1	2	3
				11. ...take time to help me decide things like choosing a career	-2	-1	1	2	3	4	1	2	3
				12. ...get me many of the things I need to help me choose a career.	-2	-1	1	2	3	4	1	2	3
				How Often ?						Important ?			
				Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important	
<b>My Teachers</b>													
E	I	A	I	My Teacher(s)...									
				13. ...makes it ok to ask questions about careers.	-2	-1	1	2	3	4	1	2	3
				14. ...explain s things I don't understand about careers.	-2	-1	1	2	3	4	1	2	3
				15. ...shows mw how to do things that	-2	-1	1	2	3	4	1	2	3

				will help me later in my career.										
				16. ...helps me solve problems by giving me information about careers.	-2	-1	1	2	3	4		1	2	3
				17. ...tells me I did a good job when I've done something well.	-2	-1	1	2	3	4		1	2	3
				18. ...nicely tells me when I make mistakes.	-2	-1	1	2	3	4		1	2	3
				19. ...tells me how well I have done on tasks.	-2	-1	1	2	3	4		1	2	3
				20. ...makes sure I have what I need for school.	-2	-1	1	2	3	4		1	2	3
				21. ...takes time to help me learn to do something well.	-2	-1	1	2	3	4		1	2	3
				22. ...spends time with me when I think I need help in thinking about choosing a career.	-2	-1	1	2	3	4		1	2	3

				How Often ?						Important ?				
				Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important		
				<b>My Classmates</b>										
E	I	A	I	My Classmate(s)...										
				23. ...treat me nicely.	-2	-1	1	2	3	4		1	2	3
				24. ...like most of my opinions and ideas about a career.	-2	-1	1	2	3	4		1	2	3
				25. ...pay attention to me when I talk about choosing a career.	-2	-1	1	2	3	4		1	2	3
				26. ...give me ideas about careers.	-2	-1	1	2	3	4		1	2	3
				27. ...give me information so I can learn about new careers.	-2	-1	1	2	3	4		1	2	3
				28. ...give me good advice about careers.	-2	-1	1	2	3	4		1	2	3
				29. ...tell me I did a good job.	-2	-1	1	2	3	4		1	2	3
				30. ...nicely tell me when I make mistakes.	-2	-1	1	2	3	4		1	2	3
				31. ...notice when I have worked hard.	-2	-1	1	2	3	4		1	2	3
				32. ...ask me to join activities.	-2	-1	1	2	3	4		1	2	3
				33. ...spend time doing things with me.	-2	-1	1	2	3	4		1	2	3
				34. ...help me with projects in class.	-2	-1	1	2	3	4		1	2	3

				How Often ?						Important ?					
				Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important			
				<b>My Close Friend</b>											
E	I	A	I	My Close Friend...											
				35. ...understands my feelings about careers.	-2	-1	1	2	3	4	1	2	3		
				36. ...sticks up for me if others are treating me badly.	-2	-1	1	2	3	4	1	2	3		
				37. ...helps me when I am lonely.	-2	-1	1	2	3	4	1	2	3		
				38. ...gives me ideas about careers.	-2	-1	1	2	3	4	1	2	3		
				39. ...gives me good advice about careers.	-2	-1	1	2	3	4	1	2	3		
				40. ...explains things I don't understand about careers.	-2	-1	1	2	3	4	1	2	3		
				41. ...tells me he or she likes what I do.	-2	-1	1	2	3	4	1	2	3		
				42. ...nicely tells me when I make mistakes.	-2	-1	1	2	3	4	1	2	3		
				43. ...nicely tells me the truth about how I do on things.	-2	-1	1	2	3	4	1	2	3		
				44. ...helps me think about choosing a career.	-2	-1	1	2	3	4	1	2	3		
				45. ...shares with me his or her thoughts about choosing a career.	-2	-1	1	2	3	4	1	2	3		
				46. ...takes time to help me solve problems.	-2	-1	1	2	3	4	1	2	3		

				How Often ?						Important ?					
				Never	Almost Never	Some of the Time	Most of the Time	Almost Always	Always	Not Important	Important	Very Important			
				<b>People in My School</b>											
E	I	A	I	People in My School...											
				47. ...care about me.	-2	-1	1	2	3	4	1	2	3		
				48. ...understand my thoughts and feeling about career choice.	-2	-1	1	2	3	4	1	2	3		

			49. ...listen to me when I need to talk about choosing a career.	-2	-1	1	2	3	4		1	2	3
			50. ...give me advice about choosing a career.	-2	-1	1	2	3	4		1	2	3
			51. ...help me solve problems.	-2	-1	1	2	3	4		1	2	3
			52. ...explain things that I don't understand about careers.	-2	-1	1	2	3	4		1	2	3
			53. ...tell me how well I do on tasks.	-2	-1	1	2	3	4		1	2	3
			54. ...tell me I've done a good job when I have done something well.	-2	-1	1	2	3	4		1	2	3
			55. ...nicely tell me when I make mistakes.	-2	-1	1	2	3	4		1	2	3
			56. ...take time to help me decide things about my career.	-2	-1	1	2	3	4		1	2	3
			57. ...spend time with me when I need help choosing a career.	-2	-1	1	2	3	4		1	2	3
			58. ...make sure I have the things I need for school.	-2	-1	1	2	3	4		1	2	3

**APPENDIX E-G****School Consent**

XXXXXX XX, XXXX

Principal XXXXX  
School  
New York

Dear XXXX,

My name is Karen V. Bourgeois, and I am a doctoral candidate at the Graduate Center of the City University of New York. This letter serves to request permission to collect data for my doctoral dissertation study. I am conducting a descriptive quantitative study that seeks to investigate the relationship between perceptions of nursing as a career, social support and intent to choose nursing as a career.

Your school was purposively selected for this study. Students in grades seventh and eighth will participate with parental permission in a traditional paper survey. I will administer the survey to the students. As a small token of my appreciation for your assistance with my doctoral research, I would give a presentation to your students about nursing as a career choice on a day that is convenient for you in a classroom setting or at a career day that would be convenient for you.

The research poses no perceivable risk to the school or any of the participants. The superintendent of Catholic Schools in the Archdiocese of New York has granted me permission to conduct this study. This must be followed by the principal's consent, parental consent and student assent. Confidentiality will be maintained and data will be kept secure throughout the study.

The results of this study will provide greater understanding of choice of nursing as a career. Upon completion of this study, a copy will be provided to your school. If you consent for your school to participate in this study, please complete the attached Participation Consent Form.

If you have any questions or concerns, please feel free to contact me at (914) 523-7805 or by email at karen.bourgeois@concordia-ny.edu. You may also contact my dissertation chair, Dr. Keville Frederickson at (718) 960-8378.

Sincerely

Karen V. Bourgeois

## School Participation Consent Form

It is with my permission that Karen V. Bourgeois, a doctoral candidate at the Graduate Center of the City University of New York, conduct research at XXXX School during 2013-2014 school year. She will collaborate with the principals to arrange times for school visits. She will use professional conduct during the research period and association thereafter.

I understand that neither the name of the school, nor the names of participants will be used in the final report. I also understand my right to withdraw the school from the study at any time.

Upon completion of the research, a copy of the dissertation will be given to the school.

\_\_\_\_\_  
Signature of the Researcher (Date)

Karen V. Bourgeois, Doctoral Candidate  
The Graduate Center  
City University of New York  
New York, NY

\_\_\_\_\_  
Signature of the Principal (Date)

XXXX XXXX,  
School  
Archdiocese of New York Catholic School

**Appendix F**

## Parental Consent

**CITY UNIVERSITY OF NEW YORK**  
*Herbert H. Lehman College*  
*Department of Nursing*  
**PARENTAL/LEGAL GUARDIAN PERMISSION FORM  
AND AUTHORIZATION FOR  
CHILD'S PARTICIPATION IN RESEARCH**

**Project Title:** Predicting Nursing Career Choice for Hispanic Middle School Females

**Principal Investigator:** Karen V Bourgeois

*Doctoral Candidate, Principle Investigator*  
*The Graduate Center*  
*365 5<sup>th</sup> Avenue*  
*New York, NY 10016*  
*(914) 523 7805*  
*karen.bourgeois@concordia-ny.edu*

**Faculty Advisor:** *Keville Frederickson, EdD, FAAN*

*Professor and Advisor*  
*Department of Nursing*  
*Lehman College*  
*250 Bedford Park West*  
*Bronx NY, 10468*  
*(718) 960-8378*  
*KEVILLE.FREDERICKSON@lehman.cuny.edu*

**Site where study is to be conducted:** Various parochial schools throughout the Archdiocese of New York..

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**Introduction/Purpose:** Your child is invited to participate in a research study. The study is conducted under the direction of Karen V Bourgeois, The Graduate Center. The purpose of this research study is to explore the attitudes, values and beliefs about a nursing career, and who influences those beliefs. The results of this study may be to better understand what influences middle school students to choose nursing as a career and the factors that may affect this choice.

**Procedures:** Approximately 200 individuals are expected to participate in this study overall. Each child will fill out three surveys and a demographics sheet. The time commitment of each participant is expected to be 30 minutes. Each session will take place at their school.

**Possible Discomforts and Risks:** Your child’s participation in this study involves minimal risk such as breach of confidentiality, however no more risk than taking a quiz in school.

**Benefits:** There are no direct benefits. However, participating in the study may increase general knowledge of personal career choices.

**Alternatives:** All students will be given an alternate assignment before the survey administration takes place should they decided not to complete the surveys.

**Voluntary Participation:** Your child’s participation in this study is voluntary, and you may decide to withdraw your child from participation without prejudice, penalty, or loss of benefits to which you are otherwise entitled. If you decide to remove your child from the study, please contact the principal investigator Karen V. Bourgeois to inform them of your decision.

**Confidentiality:** The information obtained from your child will be collected via written document. The collected records will be accessible to the principal investigator, her advisor, and the IRB Members and staff. The principal investigator will protect your child’s confidentiality. The data will be held privately in safekeeping for a period of three years by the researcher.

**Contact Questions/Persons:** If you or your child have any questions about the research now or in the future, you should contact the Principal Investigator, Karen V. Bourgeois (914) 523 7805 karen.bourgeois@concordia-ny.edu. If you or your child have any questions concerning your child’s rights as a participant in this study, you may contact Herbert H. Lehman College HRPP Office. 718-960-8960 hrpp.administrator@lehman.cuny.edu

**Statement of Consent:** “I have read the above description of this research and I understand it. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions that I may have will also be answered by the principal investigator of the research study. I voluntary agree to allow my child to participate in this study.

By signing this form I have not waived any of my legal rights to which my child would otherwise be entitled.

I will be given a copy of this statement.”

Printed Name of Subject’s Legal Guardian	Signature of Subject’s Legal Guardian	Date Signed
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Printed Name of Investigator	Signature of Investigator	Date Signed
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## Appendix G

### Student Informed Assent

Hello. My name is Karen V. Bourgeois and I attend The Graduate Center of the City University of New York. I am a student just like you. I really need your help with one of my assignments. I am working on a research project to identify your perceptions of careers. Knowing how you feel is so important to me.

Your principal gave you permission to help me. The survey will be distributed by me during classroom time that would be dedicated to learning about different careers. The survey will be distributed and collected during part of one class period. Participation is completely voluntary. You have the right to withdraw or discontinue participating from the study at any time. Your name will not be used in my paper.

By signing my name, I understand the request and agree to participate.

\_\_\_\_\_  
Signature of the Researcher (Date)

\_\_\_\_\_  
Signature of the Participant (Date)

Karen V. Bourgeois, Doctoral Candidate  
The Graduate Center  
City University of New York  
New York, NY

:

Note: The researcher will read the informed assent aloud before administering the survey. A signed copy of the document will be obtained by the researcher.

## Appendix H



## Human Research Protections Program

Herbert H. Lehman College (CUNY) HRPP Office

DATE: March 13, 2013

TO: Karen Bourgeois

FROM: Herbert H. Lehman College (CUNY) HRPP Office

PROJECT TITLE: [321687-1] Perceptions of Nursing as a Career and Social Support in Hispanic Middle School Females

SUBMISSION TYPE: New Project

ACTION: APPROVED

APPROVAL DATE: March 12, 2013

EXPIRATION DATE: March 11, 2014

RISK LEVEL: Minimal Risk

REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of New Project materials for this project. The University Integrated IRB has APPROVED your research. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

Please remember that informed consent is a process beginning with a description of the project and assurance of the participant's understanding, followed by a signed consent form(s). Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any modifications/changes to the approved materials must be **approved by this IRB prior to implementation**. Please use the appropriate modification submission form for this request.

All **UNANTICIPATED PROBLEMS (UPS)** involving risks to subjects or others, **NON-COMPLIANCE** issues, and **SUBJECT COMPLAINTS** must be reported promptly to this office. All sponsor reporting requirements must also be followed. Please use the appropriate submission form for this report.

This research **must receive continuing review and final IRB approval** before the expiration date of March 11, 2014. Your documentation for continuing review must be received with sufficient time for the IRB to conduct its review and obtain final IRB approval by that expiration date. Please use the appropriate continuation submission forms for this procedure. PLEASE NOTE: The regulations do **not** allow for any grace period or extension of approvals.

If you have any questions, please contact Tara Prairie at (718) 960-8960 or tara.prairie@lehman.cuny.edu. Please include your project title and reference number in all correspondence with this committee.



## Appendix I

OFFICE OF THE SUPERINTENDENT OF SCHOOLS  
ARCHDIOCESE OF NEW YORK

1011 First Avenue, New York, New York 10022 Phone: (212) 371-1000 Fax: (212) 758-3018

May 28, 2013

Ms. Karen Bourgeois  
12 Lilac Court  
Nanuet, NY 10954

Dear Ms. Bourgeois,

Thank you for your interest in conducting research to complete your doctoral degree requirements in our Catholic schools.

After careful review of your research proposal, I hereby endorse your study regarding the relationship between perceptions of nursing as a career, social support and intent to choose a nursing career. Thank you for agreeing to remove questions #13 and #14 on the "Child and Adolescent Social Support Scale – CASSS" which you will use, in part, to quantify your work – as a condition of this research being approved.

At this time, you may reach out to our Catholic schools. Please recall, principals have the right to decline the research proposal you present.

I look forward to receiving your findings when your work is completed, and best wishes as you begin your research.

Sincerely,

Timothy J. McNiff  
Superintendent of Schools

## Appendix J

### Scales/ Survey Usage Permission

----- Original Message -----

**From:** [Margie Wilson](#)

**To:** [kb101396@optonline.net](mailto:kb101396@optonline.net)

**Cc:** [fmay@uindy.edu](mailto:fmay@uindy.edu)

**Sent:** Wednesday, September 30, 2009 1:09 PM

**Subject:** Permission to use questionnaire...

30 September 2009

Dear Karen:

I am responding to your recent request for permission to use the survey tools that were produced for Sigma Theta Tau International's study entitled, "Attitudes, Values and Beliefs of the Public in Indiana Toward Nursing as a Career: A Study to Enhance Recruitment into Nursing".

This study was funded by a grant from the Indiana Hospital Association and published in December 1988, by the society. The questionnaires were developed by Dr. Frederick May, the Principal Investigator.

On behalf the society and Dr. May, I am pleased to inform you that you have been granted permission to use the questionnaires. Quotes from text of the report are allowed as long you give credit to the honor society by acknowledging, "Copyrighted material used by permission of Sigma Theta Tau International."

Please send us a copy of your study results.

Best wishes in your research. We look forward to receiving a report of your completed study.

Sincerely,

Margie

**Margaret A. Wilson, MS**  
**Archival Collection and Library Services Coordinator**  
**Virginia Henderson International Nursing Library**  
**Honor Society of Nursing**  
**Sigma Theta Tau International**  
**550 West North Street**  
**Indianapolis, IN 46202 USA**

**Phone: 317.917.4963**

**Fax: 317.634.8188**

**Toll Free (US/Canada): 888.634.7575**

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**CONFIDENTIALITY NOTICE:** This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information or information otherwise protected by law. Any unauthorized review, use, disclosure or distribution of this e-mail message and its content is prohibited. If you receive this message in error or are not the named recipient, please contact the sender by reply e-mail, delete this e-mail from your computer, and destroy any copies of the original message.

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**From:** [Christine Malecki](#)  
**Sent:** Thursday, October 28, 2010 4:17 PM  
**To:** [kb101396@optonline.net](mailto:kb101396@optonline.net)  
**Subject:** CASSS

Thank you for your interest in the CASSS. Please find the manual and the measure attached. The measure is free to be used for its intended purposes with no fees at this time.

We do ask that you consider sharing your CASSS data with demographic characteristics at the conclusion of your study so that we may add the data to our psychometric database.

Thank you for your interest and good luck with your research.

Christine Malecki and Michelle Demarary

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