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College students' image of nursing as a career choice

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Mendez, Diana Teresa, M.S.N.

University of Nevada, Las Vegas, 1990

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COLLEGE STUDENTS' IMAGE OF NURSING
AS A CAREER CHOICE

by
Diana Mendez

A thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Science
in
Nursing

Department of Nursing
University of Nevada, Las Vegas
May, 1990

APPROVAL PAGE

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May, 1990

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ABSTRACT

The image of nursing has been proposed as one reason for the nursing shortage. It has been inferred that the poor image of nursing negatively impacts on recruitment into the profession. Nursing must now actively compete for recruits with professions which historically were open only to males. This shrinking pool of recruits is occurring just as the need for nurses is increasing. This dichotomy is proving to be an enormous stressor to the profession.

A convenience survey of two groups of college students was instituted to determine the image of nursing in relation to an ideal career, and to discover if there are factors which make the choice of nursing as a career more likely. The responses of a group of 163 nonnursing students were compared to the responses of a group of 93 nursing students. Two questionnaires were used for this survey-the High School Students' Perception of Nursing Questionnaire and the Indiana Questionnaire.

The results of this survey indicated that the image of nursing, at least as a career choice among college students, is not very good. Unsurprisingly, nursing students correlated nursing with an ideal career more positively than nonnursing students. However, even nursing students did not describe nursing as the perfect ideal career. Obviously, more factors go into the choice of nursing as a career than these tools were able to discern.

Positive role models and positive reinforcement from family, friends, and counselors seem to be a few factors identified which impacted on that choice for the nursing students.

Inspection of the tools verified reliability and validity for the Indiana tool. The High School Students' Perceptions of Nursing tool displayed low reliability, perhaps due to too few items. The presentation of the tool lends itself to confusion because the items are separated into three sections although the sections are not mutually exclusive.

The data revealed that the High School Students' Perceptions of Nursing tool and the Nurse Career section of the Indiana tool did not measure the

same component and should not be used to validate each other.

Factor analysis produced results similar to those found in the Indiana Study. The nonnursing college students expressed many positive statements concerning nursing as a profession but clearly differentiated nursing from the ideal career. The nonnursing students identified their ideal career as consisting of these four factors- knowledge, power, stability, and technical. They identified nurse career as consisting chiefly of activity, followed by value, power, knowledge, and stability. Similar factors, but ranked in a different order. The ranking of these factors makes a difference in the choice of career.

The data disclosed a positive but low correlation between the nursing profession and nurse career for both nursing and nonnursing students. There was a positive but even lower correlation between the nursing profession and the ideal career for both groups. The nursing profession was identified not only as different but less attractive than either a nurse career or an ideal career. This was an unexpected finding and may be due in part to the different structure of the two tools.

Nurse career and ideal career correlated more strongly for both groups of students but significantly more so for the nursing group, as would be expected.

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CHAPTER I

Introduction

Presently, the United States is undergoing a severe nursing shortage (Landmark study. August 1988: The nursing shortage. July/August 1988). Grossman, Arnold, Sullivan, Cameron and Munro (1989) report a nursing shortage currently exists and is projected to worsen by the year 2000, with only one-half as many nurses with baccalaureate degrees as needed nationwide. They state:

Hospitals, the principal employer of nurses, are now facing an acute shortage, particularly of registered nurses who are educated and qualified to work in specialty areas (Selby, 1986, 1987). According to a recent survey conducted by the American Hospital Association, vacancy rates for RNs in hospitals increased more than twofold, from 6.3% in 1985, to 13.6% in 1986. Furthermore, the survey found that 83% of the hospitals reported RN vacancies in 1986, as compared to 65% in 1985 (Selby, 1987). Nevada Nurses Association RNformation, (May, June 1988) states, "The current shortage of registered nurses is documented as 'moderate to severe' in more than half of the nation's hospitals and reports now indicate it is spilling over into community settings as well" (p. 1)

Many factors have been cited to explain our present dilemma in nursing. Nevada RNformation (May, June 1988) found, "This shortage is different than those in the past and is attributable to a dramatic surge in the demand for nursing services coupled with declining enrollments in schools of nursing" (p. 1).

Grossman, Arnold, Sullivan, Cameron and Munro (1989) agreed. They stated that the present shortage is more serious than those of the 1960s and 1970s because it has been compounded by declining enrollments in all types of nursing programs. They cited three factors to account for the declining

enrollments in nursing programs. The first factor was demographic changes that have resulted in a smaller group of 18 year olds from which colleges and universities can recruit. The second factor was the image of nursing as a powerless profession with poor wages and working conditions. The authors felt that the negative image of nursing would not attract teenagers who have been described as more materialistic and less idealistic than teenagers from the 1950s and 1960s. The third factor was the changing role of women in today's society which has opened doors to careers previously closed to women.

The literature shows that hard, sometimes, unrewarding work; low salaries; little respect from patients, families, physicians, hospital administrators; limited advancement; an increase in the number of liability suits involving nurses; the risk of contagious diseases, especially A.I.D.S.; fewer enrollments in nursing schools, and more nurses leaving the profession, have made an impact on the profession. The first six factors may contribute to fewer enrollments in nursing schools and more nurses leaving the profession due to the image these factors portray of nursing. As a profession, nurses need to examine first the factors that influence an individual to choose a profession and second, the factors that influence an individual to remain in that profession. In other words, what makes one profession more desirable or preferable than another? Image seems to be an overriding component. Therefore, identification of nursing's image is appropriate and critical information needed to resolve the nursing shortage and plan for the future.

Statement of the Problem

There is a severe shortage of nurses in this country. Why do people choose or not choose to become nurses? It would aid those concerned with the future of nursing to ascertain the public's opinion or image of nursing as a profession because from that group come future nurses.

Purpose of the Study

The purpose of this study is to determine college students' opinions of nursing. This group was chosen because they are the main source of new nurses. Do these students see nursing as a worthwhile, lucrative profession or the "handmaidens" of old? Do they see nurses as strong patient advocates with

a sound theoretical knowledge base or tame followers of physician orders? These are some of the questions this study will examine.

Theoretical Background and Rationale

This study is based on Betty Neuman's Health Care Systems Model. This model directly addresses stress and how organisms react to stress. The model describes an open system consisting of an organism and its interactions with its environment. In this system an organism is beset by and reacts to stressors constantly. In order for the organism to survive it devises methods to protect itself from an encounter with stressors (primary prevention), fashions means to combat the stressors (secondary prevention), and then incorporates the successful measures to safeguard itself against future attacks (tertiary prevention or reconstitution).

Neuman (1982) wrote that even though her model was intended for an individual as the system, " ...the model could also be used to study the response of a group or community to stressors" (p.12). In this study nursing is identified as the client or system.

Neuman (1982) stated " an open systems model has two components- stress and the reaction to it " (14). Nursing is an open system and has a great many stressors impinging on it, stressors which have increased in the past decade and have contributed to the present dilemma.

Once, nursing was one of few worthy professions a woman could choose (marriage, religious life and teaching being the other three). Now, very few professions or occupational areas are closed to women. Historically, nursing was comprised mainly of women, this further diminishes nursing's attractiveness to new recruits. Unfortunately, an increase in the number of men entering the profession, to offset the loss of women, has not occurred. In the past, with few options for women, nursing was able to easily recruit the best and the brightest women. Today, nursing must compete with other professions for the best minds. Due to this competition, nursing is experiencing a new stressor. Hay, Mitchell and Allen, 1989, identified nursing's image, as a woman's profession, as an additional stressor which may hinder the competition for these best minds. The result has been a decrease in the availability of nurses.

Throughout the country, the reaction to these and other stressors has been mixed. Common findings are improved wages at some institutions, better benefits (some hospitals are now paying mileage and even paying for cleaning services in the homes of nurses), more scheduling flexibility, different shifts, e.t.c.. Nursing organizations are trying to find more money for scholarships and instructors for schools of nursing while at the same time working with nurses, institutions, and legislators to arrive at other solutions. Even the American Medical Association (A.M.A.) has a plan to "help" relieve the nursing shortage by training a new group of technicians to take over some of nursing's tasks. This suggestion by the A.M.A. has created even further stress in nursing, first over who will be responsible for these technicians and second over the further reduction of the recruitment pool. Is nursing's image such that other organizations such as the A. M. A. can create quasi nurses to fill the gaps, and that society will seriously consider their proposal?

Neuman's model further enables us to view nursing as an open system reacting to the interplay of three major factors or stressors (intrapersonal, interpersonal, and extrapersonal). The intrapersonal factor is within nursing itself-its own members-nurses entering and leaving the profession; nurses either fighting for the profession's betterment or being apathetic about its future. The interpersonal factors are nursing's interactions with others such as legislators, other professions, patients and the public at large. The extrapersonal factors include the media, including television, movies, books, and magazines; the economy; and the changing status of women.

Neuman (1982) describes her model as consisting of a core surrounded by concentric circles or rings. Stressors penetrate to or are deflected from the core by the strength of those rings - the lines of defense and resistance. Nursing's core consists of the nurses themselves, and, as Neuman (1982) states " education and practice " (p.4).

The first set of rings within the model are the flexible lines of resistance or the internal factors that every organism has to defend itself against a stressor. Nursing's professional associations, ANA and NLN, and the schools of nursing are the lines of resistance.

Within the model, the next set of rings are the normal lines of defense-an organisms' equilibrium or range of responses it has developed over time. The

lines of defense include the state boards of nursing, the national testing and licensure program, the specialty professional associations, the certification programs for specialty areas and the body of knowledge nursing is accumulating with continuing research.

The last set of rings in the model are the flexible lines of defense, a dynamic and rapidly changing buffer zone which protects the lines of defense (Neuman, 1982). The flexible lines of defense include image, supply and demand, and range of options.

Nursing's image has been categorized as part of the flexible lines of defense, because nursing's image has changed frequently throughout this century (Kalisch and Kalisch, 1983a) but remains a part of the whole system. If the image became stable over time it could be categorized as part of the normal lines of defense, or the lines of resistance. And if nursing's image were positive over an extended period of time it could become synonymous with nursing and be categorized as part of the core.

As defined by Neuman, stressors can be both negative and positive. If nursing's image is that of a low paying, low prestige, and over worked profession this image is negative. This negative stressor could impinge on the system all the way to the core. However, this same stressor can have a positive effect if it forces the profession to confront and change the issues that caused the negative image in the first place.

Significance of the Study

Nursing is faced with declining enrollment and nurses leaving the profession (limited supply) just when the need for its' services are increasing (demand). Everyone is searching for answers and remedies. Throughout the country different remedies are being tried to alleviate the present shortage. We have gone so far as to recruit nurses from other countries such as Canada, the British Isles, and the Phillipines. Johnson (1987) has stated that the percentage of foreign nurses in certain states varied from 22% in California to 2% in Colorado. It has not been enough. Our present nurses are caught in the crunch of too many patients and not enough nurses to go around to deliver safe care. Nurses are concerned, patients and their families are concerned, administrators are concerned, legislators are concerned and the public is concerned. What are

possible solutions? Some within and outside of nursing ascribe the problem to nursings' negative image and are devising ways to change that image. Before an expensive campaign to change nursing's image is started, the public's image of nursing must be determined. This survey may save time and money and could help target the particular areas that need changing, and /or identify the particular groups that need to be reached.

Research Questions

1. What is the relationship between the image (perception) of nursing and nursing as a career choice among nursing and nonnursing college students?
2. What is the relationship between the image (perception) of nursing and an ideal career among nursing and nonnursing students?
3. What is the relationship between nursing and nonnursing college students in the perception of nursing as a career and an ideal career?
4. What is the difference in that image or perception of nursing as a career choice among demographic groups (age, gender, race, major, role model) ?
5. What are the differences in the "ideal" career between demographic groups (age, gender, race, major, role model) ?

Definition of Terms

Conceptual Definitions

1. Nurse - "The nurse assists individuals, families, and groups to attain and maintain a maximum of total wellness by purposeful interventions aimed at reduction of stress factors and adverse conditions which affect optimal functioning in a given patient situation" (Neuman, 1982, p. 30).
2. Nursing - "...a complex large-scale system in itself, if measured only by its diversity of role and function" (Neuman, 1982, p. 3)
 - "Nursing is composed of multiple and complex phenomena which could be synthesized into a logical and empirically valid open system" (Neuman, 1982, p. 4).
 - "When viewed as a whole system, nursing must have a reciprocal relationship with the environment of the larger health care system, as well as with the larger social system surrounding it, while at the same time

sharing with the parts and subparts of its own smaller system" (Neuman, 1982, p. 6).

3. Stressors - "...tension-producing stimuli with the potential of causing disequilibrium, situational or maturational crises, or the experience of stress within the individual's life" (Neuman, 1982, p. 14).

4. Image -"a subjective knowledge structure, not necessarily reflecting actuality in all of its components" (Kalisch and Kalisch, 1983a, p. 4).

5. Images - "Images are mental representations that influence how people see all aspects of life, including nurses and nursing; they help people in achieving tangible goals, making judgements, and expressing themselves" (Kalisch and Kalisch, 1983a, p. 4).

Operational Definitions

1. Public - in this study college students from Clark County
2. Nonnursing students - in this study, will be defined as college students not previously licensed or being educated as nurses
3. Nursing students - in this study, students enrolled in the university nursing program
4. Nurse - in this study a nurse is defined as a person licensed or educated as a licensed practical, vocational nurse or a registered nurse
5. Image of nursing - in this study image will be defined as the perception of nurses/nursing as measured by the survey questionnaire
6. Career - in this study career will be defined as a profession or course of study chosen by the students to attain their goals

Assumptions of the Study

1. College students have an image or perception of nursing which can be determined through a survey questionnaire.
2. Nursing's image affects its attraction as a viable career choice.
3. Examination of the college student's perceptions of nursing as a career will enable nursing to concentrate its efforts to change the negative areas of its image and reinforce the positive areas.
4. Nursing students positively correlate a nursing career with an ideal career.

Summary

In summary, this chapter presented image in relation to the nursing shortage, by suggesting that the negative image of nursing directly affects recruitment. The statement of the problem was identified as a shortage of nurses. The purpose of the study was to ascertain college students' image of nursing. The theoretical framework, Betty Neumans' Health Care Systems Model, was presented in relation to this study. The significance of the study, discovering specific areas and groups that need to be targeted and addressed concerning nursing, thereby saving time and money, was presented. Five research questions were outlined. Operational and conceptual definitions were given, and four assumptions of the study were put forward.

CHAPTER II

Review of the Literature

The review of the literature begins with a general overview of the word image, focusing on both nursing and other professions. The image of nursing in the British Isles is discussed next, followed by a discussion of the image of nursing in the United States. The review demonstrates that nursing is not the only field to have concerns about its image.

Image

Image is often defined as a perception, a mental picture, a representation, a symbol, or a likeness, of an object, person, place or thing. Kalisch and Kalisch (1983a) define images as " mental representations that influence how people see all aspects of life, including nurses and nursing; they help people in achieving tangible goals, making judgements, and expressing themselves" (p.4). They go on to say that public images are the bond of societies and are produced by exchanging images from one to another through the use of symbols in interpersonal and mass communication. They write that these public images create and reinforce distinctions between groups and that if nurses are constantly portrayed negatively, that image affects their lives and aspirations while limiting their scope of practice.

Curtin (1987) in discussing how misperceptions of nursing are affecting enrollments in nursing schools stated "To be honest, perhaps a more precise statement would be that the publics' perception is inaccurate-like a picture out of focus-rather than a true misperception" (p.11).

Other professions are troubled by image too. Olins (1978) wrote "Corporate identity is now a fashionable and much used tool of top management. Many companies anxious to create an image or to change it employ design consultants to work on their image problems" (p.11).

Napolese (1988) described corporate image as "the way in which a company is perceived by the public-consumers, competitors, suppliers, the government, and the general public" (p.1). She stated that image is always earned, not created and that it is always changing as new information is introduced. Her discussion of image is strikingly similar to that of Kalisch and Kalisch. She stated that corporate image develops through contact with the company and interpretation of information about the firm. She concluded that the impressions obtained through contact with the company's buildings, products, advertising, and business dealings are collected in the minds of people and organized into a picture of what the firm is like.

Strasen (1987) described image similarly as "the overall impression the consumer or patient has about a product, service, or organization gained through his physical, emotional, and psychological experience" (p.194).

Nurses are very concerned about nursing's image. They worry, research, and discuss, nurses' image of nurses, physicians' image of nurses, and the public's image of nurses (e.g., Bernays, 1952; Kalisch and Kalisch, 1982a, 1982b, 1983a, 1983b, 1985a, 1985b, 1986; Lee, 1979; Pearson, 1983; Rayner, 1984; Snow-Antle, 1984; Holmes, 1987; Wilson-Barnett, 1984).

Williams (1983) wrote "...nursing's public image is a matter of considerable concern to the profession at large and to the academy" (p.1). Strasen (1987) agreed, "The image of the nursing profession has been a popular topic in the 1980s. Many seminars and conferences have dealt with the subject" (p.194). Strasen asserted "National campaigns have been launched by various nursing organizations to improve our image" (194).

Kalisch and Kalisch (1983a) strongly suggested that we devise a new image for ourselves, the careerist. Hill (1983) made a similar suggestion, "...I propose we need to consider the need for a major internal image change" (p.59). Lindeman (1983) concurred, "The mandate is clear--change, improve the public's image of nursing" (p.61). Kelly (1983) also spoke of image, "So what do we do to change the image or emphasize the good?" (p.67).

Nurses make assumptions rightly or wrongly on their image of other's images of nurses. What image or images of nurses and nursing have been found to exist?

The images from England.

Sparrow (1987) has researched the role of uniforms and how they affect image. She found "The stereotyped image of the nurse-be it that of angel, battle ax, sex symbol or doctor's handmaiden is always that of a female in uniform dress, invariably with starched apron and cap" (p.41). Sparrow described her study as qualitative and mentioned "10 out of 160 members of the public thought that identification was a reason for nurses wearing uniform and yet it is one of the main reasons given by nurses." She gives no other information in this paper about her study so it is difficult to accurately judge its significance.

Ellis (1978) after informally reviewing get well cards and letters to the press declared "Nurses appear to possess several other popular images besides the 'kind and dedicated' type. And they fall into two basic categories: the type of nurse who is 'bossy' and pompous and the 'sexy' type of nurse" (p.350). Ellis gave no other information in his article so again it is difficult to assess its significance.

Raynor (1984) reported on a survey commissioned to determine the public's image of nursing in England. This survey, of almost 2000 people, queried individuals on their image of the ideal and real nurse and found that the public viewed nurses as extremely hardworking, that nursing was a profession, and that nurses should be allowed to use their own initiative. At the same time the public did not perceive nursing to have much social status nor did they see the need for nurses to be well educated. Raynor reported: "First, and I think most importantly, the difference between the real and the ideal is not as great as might have been expected....The greatest difference between the real and the ideal is in fact only 12, and that shows in only two of the responses measured" (p. 30). Raynor did not clarify what she meant by a difference of 12.

Raynor described the sample in this study as a quota sample designed to be representative of Britons over the age of 15. This sample was then split into two groups, a group of 947 persons who chose statements that represented its impressions of what nurses should ideally be and a group of 1,016 persons who chose statements that reflected what nurses actually are. Everyone in the sample was individually interviewed in the home using the same image profile of 16 statements, then the differences between the actual and ideal groups

were examined to pinpoint the areas where the public's ideal nurse differed from the actual nurse.

The tool used in this study was a short list of statements which the respondent read. The respondent then told the interviewer which statements he or she thought fit the ideal or actual nurse. No information was given on reliability or validity of the instrument or on how the interviewers were trained. It was stated that the interviews were carried out by a company which specialized in survey research. No mention was made of the statistics used on the data although the results were presented in percentages.

Pearson (1983), reported on a study of 200 patients of a community hospital in England, who represented 5% of 4000 patients registered with one of the hospital's general practices. A questionnaire was sent to the 200 randomly selected patients. The results were then given to an independent judge who categorized the responses under general headings. Although no statistical analysis was done he found patients classified nurses as, "The 'good' nurse is someone who has the 'right personality (caring, cheerful, unselfish), and this is regarded as more important than having anything more than a basic education:....A 'poor' nurse, on the other hand, is one who is uncaring, although being incompetent and lack of vocation are also regarded as being undesirable" (Pearson, 1983, p. 18). Again no information was given on the tool itself, its validity or reliability.

Wilson-Barnett (1984), reviewed 343 returns of another questionnaire on nurse's image; the data was collected from nurses. Wilson-Barnett characterized this sample as a "voluntary" sample of Nursing Times readers and stated that a "simple analysis" of the results was done by a market research company (p. 51). No mention was made of reliability or validity tests done on the tool. She found most of the nurses thought nurses worked hard, cared about their patients and saw their practice as independent and competent but they were not clear about nurses having opportunities to take initiative or being sufficiently educated. She also reported that the majority of the respondents agreed that nurses did little politically to improve the situation and had few career aspirations.

Image in the U.S.

Sigma Theta Tau sponsored a study by May, Austin and Champion (1988) which surveyed the public in Indiana concerning their choice of nursing as a career. The sample included 10,000 college freshman and students in grades 6 through 12 and those adults who could be considered to influence the students' choices. Their two part instrument first determined the subject's concept of an "ideal" career and then the subject's perception of nursing as a career. They found that nursing has several attributes in common with the ideal career - intellectual application, caring for people, career security, and scholastic and academic achievement. They also found several attributes which nursing and the ideal career do not have in common -respect and appreciation, autonomous nursing practice, safety in the work environment, workload, the accumulation and application of knowledge, competitive salaries, leadership opportunities, technical versus professional, and empowerment of nurses.

The questionnaire consisted of one page of demographic questions, and two pages with 17 statements on each. The first page of statements elicited the subject's concept of an ideal career and the second page of statements elicited the subject's concept of nursing as a career. The subjects were asked to rate the statements on a Likert scale from strongly agree to strongly disagree.

The authors tested the tool for internal consistency reliability by using the coefficient alpha on each of the dimensions and total scores for both the ideal career and nursing as a career. The coefficients alpha ranged from .60 to .84. The authors identified a reliability coefficient of .60 or greater as acceptable and stated they felt the tool showed acceptable internal consistency reliability.

Grossman, Arnold, Sullivan, Cameron & Munro (1989) reported on a pilot survey of 300 hundred high school junior students. The authors implemented the survey to determine the student's perceptions of nursing as a career and "to explore the relationship between the experience of having a nursing role model and the decision to consider nursing as career" p.18. The authors found that the majority of students in the sample were aware of the caring and helping aspects of nursing, but there seemed to be a lack of knowledge about expanded roles and opportunities for advancement. They also reported a

significant relationship between the experience of having had a role model and consideration of nursing as a career.

The authors used a cross-sectional design to survey both public and private high schools-one Southeastern and five Mid-Atlantic high schools. The instrument was designed by the authors specifically for this study. The convenience sample of 300 students ranged in age from 15 to 19, 117 were males and 183 females. One class in each high school was sampled with the surveys being administered during regularly scheduled class by a high school teacher. Content validity for the tool was established by expert opinion on each item in the questionnaire with a .92 proportion of all the items judged as valid ($p < .05$). The authors wrote that a Cronbach's alpha of 0.7645 showed tool reliability.

Kohler and Edwards (1990) surveyed 306 high school students concerning their beliefs about nurses and nursing. The investigators developed a Likert based format questionnaire of 42 questions concerning nurses and nursing, followed by 3 other items constructed to identify beliefs about wages, their primary source of information about nursing, and whether they would consider nursing as a career. The authors stated that content validity for the tool was verified by expert opinion. Reliability was not reported. The sample was described as consisting of students in grades 9-12 from three public high schools. Their findings revealed a projected continuing shortage, and beliefs about nursing incongruent with the reality of nursing today.

Lippman and Ponton (1989) used a mail survey of 1000 nonnursing faculty from 19 northeastern universities to determine if the faculty first, had contact with the media portrayal of nursing, secondly, with nurses themselves and finally, was the faculty image of nursing consistent with the media image. The researchers had concluded that the media image of nursing was negative. However their conclusions were that the faculty had a much more positive image of nursing than that portrayed by the media.

The instrument contained 42 statements about nursing, questions about demographics, personal contact with nurses, and media exposure. The response rate was 53.9%. No information was given concerning the development of the tool, its reliability and consistency nor on the statistics used to examine the data.

Smith and Smith (1989) personally reviewed high school texts to determine the image they portrayed of nursing. They analyzed 11 high school, 8 seventh-grade and 8 eighth-grade texts totalling 10,513 pages. They found that if all the textbooks were taken together a well balanced and accurate picture of nursing emerged. They stated however that in reality only a few of the textbooks are ever read by any one student and therefore the image could vary widely. They concluded that nursing should involve itself in the writing and review of these texts. No tool was mentioned and the only statistics used were the listing and categorizing of statement

Kalisch and Kalisch have been researching nursing's image in novels, magazines, short stories, poems, newspaper clippings, motion pictures, radio programs, and television for years. Their research has shown that nursing's image has changed through the years. They describe them as--(1) the Angel of Mercy [1854-1919], (2) the Girl Friday [1920-1929], (3) the Heroine [1930-1945], (4) the Mother [1946-1965], and (5) the Sex Object [1966-1982]. (Kalisch and Kalisch, 1983a, p. 5).

Kalisch and Kalisch (1982a) described the development of the tools used in their studies. "Three content analysis tools were developed, tested, and used in the coding of motion pictures. Coders who applied the instrument underwent a standardized training program developed for the project. Intrarater reliability was 93.1% and interrater reliability was 91.65%. Validity testing was also carried out" (p.605). Intrarater and interrater reliability for the study on the image in novels was 87.1% and 88.3% respectively" (Kalisch and Kalisch, 1982b, p. 1220).

Lee (1979) surveyed 536 physicians nationally and asked them to rate nurses. His findings were depressing, "The handmaiden image lives on,...A majority of the 536 MDs we surveyed nationally say that RNs can be replaced by LPNs, aides, or PAs in many situations....Doctors definitely see nursing as an extension of medicine, rather than a separate discipline" (p. 21). Description, development and testing of the tool, and the statistics used were not given.

Snow-Antle (1984) conducted a much smaller survey in Boston of 50 subjects. She observed:

The results of the survey indicate that the public is becoming more aware of some of the crucial distinctions that make nursing a

unique discipline. Certainly the "image" of the nursing profession is not ideal, but it has been improving over the past few years, and while the public has not been able to grasp all the changes it seems hopeful that progress will continue to be made (p. 56)

She characterized her study as a descriptive survey. The sample consisted of 21 men and 29 women from three organizational groups in the Boston area. She did not identify the groups but stated they had been selected from a table of random numbers. She did not specify if the tool had been tested for reliability or consistency nor what statistics were used on the data.

Summary

In summary, this chapter discussed nursing's concern with its image and how that image is affecting recruitment. The literature research demonstrated that image is not only a concern of nursing in this country, but also in the British Isles. The concern is so vital to the profession that studies have examined nursing's image in the media, literature, greeting cards, and studies have examined nursing's image among nurses, physicians, high school students, college students, parents, counselors, and faculty.

Unfortunately, very little of the research has been built on previous research and most of the tools have not been well tested. For this reason the present study replicates the May, Austin, Champion study on the attitudes, values and beliefs of the public in Indiana concerning nursing as a career. The same tool will be used as it has been tested for reliability. The May, Austin, and Champion tool will be titled the Indiana Tool for this study. The High School Students' Perceptions of Nursing Questionnaire developed by Grossman, Arnold, Sullivan, Cameron, & Munro (1989) will also be used. This tool has been tested for both reliability and validity. This tool will be titled the Nursing Profession tool for this study. The tools should support each other thereby enhancing the validity of each and of the results.

CHAPTER III

Methodology

The literature has identified that the United States is in the midst of a severe nursing shortage and that this nationwide shortage is impacting on various groups, nursing, patients, administrators, legislators, etc., in a stressful manner (Aiken, 1988; Gorman, 1988; Nevada Nurses Association RNformation, July/August, 1988; "Recruitment and Retention Strategies," 1987; Zimmerman, 1988).

Different causes and remedies for the shortage have been suggested. One cause often mentioned is nursing's negative image as a high stress, hard working, low paid, low esteem career. Several studies were presented which validated that image both here and abroad.

DESIGN

The research design of this study is that of a descriptive survey. This study is a partial replication of the May, Austin and Champion (1988) study of attitudes, values and beliefs of the public in Indiana sponsored by Sigma Theta Tau. By replicating that study and comparing the results, it was hoped that implied causality between nursing's image (the independent variable) and the choice of nursing as a career (the dependent variable) could be inferred. As this was a descriptive study the independent variable was not manipulated.

SAMPLE

The data was collected from a convenience sample of 93 nursing and 163 nonnursing college students in the Southern Nevada area, specifically Clark County.

SETTING

Students from both a university and community college situated in Clark County were surveyed. The nursing students surveyed were from the University. The tool was distributed to the students by the investigator, filled out and returned during orientation, lunch in the cafeteria or regularly scheduled class times.

TOOLS

The tool used to collect data from students about their career values and attitudes toward nursing as a career was a combination of the May, Austin, and Champion (1988) Tool and the Grossman, Arnold, Sullivan, Cameron and Munro Tool (1989).

The Indiana Tool consists of two pages each containing 17 statements. The first page of statements was designed to elicit the subject's concept of an ideal career and the second page of statements to elicit the subject's concept of nursing as a career. The subjects rated the statements on a Likert 4 point scale from strongly agree to strongly disagree by circling the answer that best described how they felt about an ideal career and a nursing career. The Indiana Tool had been tested for internal consistency reliability by Mays, Austin and Champion using coefficient alpha on each of the dimensions and total scores for ideal career and nursing as a career. They found coefficients of .84 for the total ideal career scales and .81 for the total nursing scale. A minimum acceptable level would be .60 or greater, .80 would be considered adequate, the closer the reliability coefficient is to 1.00 the less error is present.

The Grossman, Arnold, Sullivan, Cameron and Munro Tool consists of two pages. The first page is comprised of 14 statements designed to elicit the student's perceptions of nursing as a career; the second page is comprised of demographic questions. This Tool is arranged on a Likert scale ranging from yes to unsure. For this study the first page of this Tool was titled Nursing Profession and became the first page of the combined tool.

The Grossman, Arnold, Sullivan, Cameron and Munro Tool (1989) had been tested for content validity by quantification. The authors had six nursing academic and recruitment experts judge each item on the tool using a 4-option rating scale ranging from not relevant to very relevant. It was determined that the whole instrument had a 0.92 proportion of total items judged as valid ($p < .05$). The authors determined reliability, Cronbachs alpha of 0.7645, using the internal consistency method.

The data from this study was analyzed by descriptive statistics for the group as a whole and for each subgroup in the sample. The analysis replicates the data analyses used by May, Austin and Champion (1988).

Analysis

Tool Analysis

The Indiana Tool was analyzed by factor analysis, employing the Statistical Package for the Social Sciences (1981) on each scale to determine if dimensions or subscales exist within the ideal career scale and the nursing scale for these groups. May, Austin and Champion (1988) found four dimensions in the ideal career scale-knowledge, power, evaluation, and activity. They found three dimensions in the nursing scale-activity, evaluation, and power.

Grossman, Arnold, Sullivan, Cameron, & Munro (1989) did not determine subscales or dimensions in the High School Students' Perceptions of Nursing tool but this study tested the tool via factor analysis to determine if subscales existed. The nursing students should have similar results on both parts of the Indiana Tool and on the Nursing Profession Tool.

Analysis in relation to the research questions

1. What is the relationship between the image or perception of nursing and nursing as a career choice among college students and nursing students? This relationship was determined by comparing the results of the Nursing Profession Tool to the results of part A of the Indiana Tool (Nurse Career) using Pearson's Product-Moment Correlation Coefficient as the data on both tools is at the interval level.

2. What is the relationship between the image or perception of nursing and an ideal career among nonnursing and nursing students? This was determined by comparing the results of the Nursing Profession tool to part B (Ideal Career) of the Indiana tool.

3. What is the relationship between nursing and nonnursing college students in the perception of nursing as a career and an ideal career? The results of section A (Nurse Career) of the Indiana tool were compared to the results of section B (Ideal Career), again using the Pearson Product-Moment Correlation Coefficient as this is interval data.

4. What is the difference in that image of nursing between demographic groups (major, age, gender, role models, race) ? Significant differences

between all the subgroups were determined using ANOVA on the results of the Grossman tool and Section A (Nurse Career) of the Indiana tool. ANOVA allows us to test the difference between two or more means at a time (Shelley, 1984, p. 473).

5. What are the differences in the "ideal" career between demographic groups (major, age, gender, role models, race)? The results of section B (Ideal Career) of the Indiana Tool were examined for any significant differences between the demographic groups using ANOVA.

Summary

In review, the methodology of this study partially replicates that of the study by Mays, Austin and Champion (1988). This descriptive study will ascertain nursing and nonnursing college students' perceptions of an ideal career and nursing as a career. A combination of the Indiana Tool used by May, Austin and Champion (1988) and the High School Students' Perceptions of Nursing Tool used by Grossman, Arnold, Sullivan, Cameron, and Munro (1989) will be used. Descriptive statistics will be used to analyze the data.

CHAPTER IV

Results and Discussion

This chapter will present the results of first, the demographic data, second, instrument testing, and third, factor analysis and the findings related to the research questions. Tables will be used to organize the data whenever possible.

Demographics

Demographic data were collected to identify the samples, to explore similarities and differences in the samples, and to determine the possibility of generalizing the results to college students in southern Nevada. The first sample consisted of 161 nonnursing students, 29 from the Community college and 132 from the University. The second sample consisted of 93 nursing students from the University nursing program. This group included prenursing students, 4 year generic program nursing students and nursing students from the upper two nursing program. The tables present information on the demographics of the population and samples of both schools.

Population Demographics

The student population of the Community college for the fall of 1988 was 14,335. The University's student population at that time was 14,673. 1988 data were used as the Community College did not have the fall 1989 data.

The demographics for the two schools is similar, although there is some slight variation in ethnic diversity. The University lumps all nonresident aliens in one group regardless of race, the community college does not have such a listing.

Table 1
Gender Breakdown of Total Enrollment for Both Schools

<u>Gender</u>	<u>Schools</u>	
	<u>College</u>	<u>University</u>
Male	6264 - 44%	6954 - 47%
Female	8071 - 56%	7719 - 53%

Table 2
Ethnic variation of both schools

<u>Ethnicity</u>	<u>College</u>	<u>University</u>
White, nonHispanic	78.4%	84.0%
Black, nonHispanic	9.6%	5.5%
Hispanic	6.8%	5.0%
Asian	3.9%	3.6%
Other	1.3%	0.5%
Nonresident Alien	0.0%	1.4%

Sample Demographics

The tables that follow present the sample demographics, beginning with age and ending with role model influence. The data from both samples will be presented in each table.

Table 3

Age distribution of samples

	College	University	Total	Nursing
Age	Students	Students	Students	Students
	n=29	n=134	n=163	n=93
17-19	44.8%	83.3%	76.4%	03%
Range	18-44	17-69	17-69	18-74
Mean	28.4	29	31	29
Mode	18	18	18	21

Although state of residence spanned 29 states, Puerto Rico, Canada and Sweden, the highest responses were Nevada, followed by California. The Community College students were all Nevada residents, as expected. The Community College does not recruit outside of Nevada.

Table 4

State of Residence

<u>State</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
California	000.0%	12.1%	10.0%	01%
Nevada	100.0%	56.8%	64.6%	95 %

The next two tables shows some difference between the community college, the university and nursing groups in relation to race and gender. This may be due to the small size, only 29 students, of college group. N=29 for the college students, 134 for the university students, 163 for both nonnursing groups, and 93 for the nursing group.

Table 5

Race

<u>Ethnicity</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
White	79.3%	75.0%	75.8%	87.0%
Black	10.3%	06.1%	06.8%	04.0%
Hispanic	00.0%	06.8%	05.6%	03.0%
Asian	03.4%	03.0%	03.1%	03.0%
Other	03.4%	02.3%	02.5%	02.0%
Missing	03.4%	06.8%	06.2%	01.0%

Table 6

Gender distribution

<u>Gender</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
Male	27.6%	46.2%	42.9%	12.0%
Female	69.0%	47.0%	50.9%	87.0%
Missing	03.4%	06.8%	06.2%	01.0%

The status table also shows some difference between the community college, the university and the nursing groups. The larger percentage in the missing category may be due to the fact that the community college does not identify their students as freshmen, sophomore, etc.

Table 7

Status

	College	University	Total	Nursing
<u>Students</u>	<u>Students</u>	<u>Students</u>	<u>Students</u>	<u>Students</u>
	n=29	n=134	n=163	n=93
Freshmen	79.3%	87.1%	83.2%	03.0%
Sophomore	03.4%	06.1%	05.6%	15.0%
Junior	00.0%	02.3%	01.9%	43.0%
Missing	17.2%	07.6%	09.3%	03.9%

Table 8 presents the identified majors by college. The disparity here is present in the community college and nursing groups. The community college does not offer as many programs as the university and the nursing students were already enrolled in the Health Science college as expected.

Table 8

Students' Majors Ranked by College

College	College Students	University Students	Total Students	Nursing Students
	n=29	n=134	n=163	n=93
Arts & Letters	10.2%	13.2%	12.2%	01.0%
Business	17.2%	13.2%	13.5%	00.0%
Engineer	00.0%	04.0%	03.0%	00.0%
Education	10.3%	04.0%	04.9%	00.0%
Health Science	03.4%	02.3%	02.5%	99.0%
Hotel	00.0%	26.6%	21.7%	00.0%
Science & Math	03.4%	07.95	06.7%	00.0%
Undecided	20.6%	16.7%	34.1%	00.0%
No Response	34.5%	13.6%	17.4%	00.0%

Tables 9, 10, and 11 present data on the students' identified future occupations and the occupations of their parents as categorized by the researcher on the basis of nonprofessional versus professional.

Table 9

Identified Future Occupation of Students

<u>Occupation</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
Blue Collar	23.8%	08.8%	05.4%	00.0%
White Collar	47.9%	54.5%	59.4%	99.0%
Military	00.0%	00.8%	00.6%	00.0%
Homemaker	00.0%	00.8%	00.6%	00.0%
Undecided	03.4%	10.1%	07.3%	01.0%
No Response	24.1%	25.0%	26.7%	00.0%

All groups showed a preference for white collar occupations, although almost 24% of the community college students did identify blue collar occupations as their future occupation.

Table 10
Mother's Occupation

Occupation	College Students	University Students	Total Students	Nursing Students
	n=29	n=134	n=163	n=93
Blue Collar	30.7%	36.9%	29.6%	32.0%
White Collar	17.0%	24.1%	27.1%	28.0%
Military	00.0%	00.8%	00.6%	00.0%
Homemaker	34.3%	18.4%	24.1%	22.0%
Retired	00.0%	01.8%	00.6%	07.0%
No Response	17.2%	17.4%	17.4%	08.0%
Deceased	00.0%	00.8%	00.6%	03.0%

Mothers of community college students showed the highest percentage of homemakers, while mothers of the university students showed the highest percentage of blue collar professions. Mothers of the nursing students exhibited a slightly higher percentage of blue collar occupations than white collar or homemaker.

Table 11
Father's Occupation

Occupation	College Students	University Students	Total Students	Nursing Students
	n=29	n=134	n=163	n=93
Blue Collar	51.0%	25.7%	31.5%	33.0%
White Collar	17.0%	46.9%	40.6%	40.6%
Military	03.4%	03.8%	03.8%	01.0%
Unemployed	00.0%	00.0%	00.0%	00.0%
Retired	10.3%	05.3%	06.2%	14.0%
Deceased	00.0%	00.8%	00.6%	07.0%
No Response	17.2%	17.5%	17.4%	08.0%

Fathers of the community college students exhibited a higher percentage of blue collar occupations while fathers of the university exhibited a higher percentage of white collar occupations. Fathers of the nursing group also exhibited a higher percentage of white collar occupations, although not as high as the fathers of the nonnursing university students. Perhaps it is the father's occupation that influences people towards a university education.

Table 12 presents information on the students' past consideration of nursing as a career.

Table 12

Consideration of Nursing as Future Occupation

<u>Nursing</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
Yes	24.1%	12.1%	14.3%	98.0%
No	72.4%	81.1%	79.5%	01.0%
No Response	03.4%	06.8%	06.2%	01.0%

Over 70% of both nonnursing groups stated they had not considered nursing as a career choice. One can see the nursing shortage will not improve soon as reflected by these students.

Tables 13, 14 and 15 present information on parents, friends and guidance counselors probable responses to the choice of nursing as a career.

Table 13

Parents & Nursing as a Career Choice

Preference	College Student	University Students	Total Students	Nursing Students
	n=29	n=134	n=163	n=93
Excellent choice	34.5%	13.6%	17.4%	46.0%
Good idea	17.2%	18.2%	18.0%	39.0%
Fair idea	13.8%	15.9%	15.5%	08.0%
Not good idea	10.3%	07.6%	08.1%	03.0%
Not at all good idea	03.4%	06.8%	06.2%	01.0%
I don't know	17.2%	31.8%	29.2%	02.0%
No response	03.4%	06.1%	05.6%	01.0%

Unsurprisingly, 95% of the nursing students reported their parents would consider their choice of a career in nursing favorably. 32% of the university nonnursing students and 52% of the community college students reported their parents would look favorably on their choice of nursing as a career. A large percentage of the parents of the community college students were reported to be homemakers or in blue collar occupations, this may indicate that those parents see a nursing career as a step up for their children, a white collar occupation. The parents of the university students, with a higher percentage of white collar occupations, may not see nursing as a step up and therefore more of a blue collar occupation.

Table 14
Friends & Nursing as a Career Choice

<u>Preference</u>	<u>CCCC Students</u>	<u>UNLV Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
Excellent idea	17.2%	05.3%	07.5%	27.0%
Good idea	24.1%	16.7%	18.0%	42.0%
Fair idea	20.7%	15.9%	16.8%	12.0%
Not good idea	03.4%	15.9%	13.7%	13.0%
Not at all good idea	06.9%	09.1%	08.7%	02.0%
I don't know	24.1%	31.1%	29.8%	03.0%
No response	03.4%	06.1%	05.6%	01.0%

Again, the nursing students reported the highest percentage of favorable outcomes from their friends, followed closely by the community college students and then the nonnursing university students.

Table 15
Guidance Counselors & Nursing as a Career Choice

Preference	College Students	University Students	Total Students	Nursing Students
	n=29	n=134	n=163	n=93
Excellent idea	14.4%	10.3%	13.7%	43.0%
Good idea	12.9%	17.2%	13.7%	36.0%
Fair idea	10.6%	06.9%	09.9%	07.0%
Not good idea	06.8%	03.4%	06.2%	02.0%
Not at all good idea	04.5%	06.9%	05.0%	00.0%
I don't know	44.7%	48.3%	45.3%	11.0%
No response	06.1%	06.9%	06.2%	01.0%

Eighty six percent of the nursing students reported their guidance counselors would respond favorably to nursing as a career choice. Both nonnursing groups reported low favorable reactions from their guidance counselors. Forty percent of the community college students and thirty four percent of the nonnursing university students reported a probable favorable reaction. However, a larger percentage of both nonnursing groups reported not knowing how their guidance counselors would respond. Evidently, neither the students or counselors had brought nursing up for discussion.

Tables 16 and 17 present information on the existence of nurse role models and their influence on the students.

Table 16

Nurse as Role Model

<u>Role Model</u>	<u>College Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
Yes	31.0%	46.2%	43.5%	70.0%
No	58.6%	46.2%	48.4%	30.0%
No response	10.3%	07.6%	08.1%	00.0%

Seventy percent of the nursing students reported having had a role model. The nonnursing university students were evenly divided between having or not having had a role model, while fifty nine percent of the community college students reported not having a role model. It would seem that a nursing role model may have an effect on the choice of nursing as a career.

Table 17
Influenced by Role Model

<u>Influence</u>	<u>Community Students</u>	<u>University Students</u>	<u>Total Students</u>	<u>Nursing Students</u>
	n=29	n=134	n=163	n=93
Yes +	17.2%	16.7%	16.8%	45.0%
Yes -	03.4%	04.5%	04.3%	08.0%
No	69.0%	62.9%	64.0%	40.0%
Questionable	00.1%	09.1%	07.5%	00.0%
No response	10.3%	06.8%	07.5%	07.0%

Note. + = positive; - = negative; questionable = statements that could not be categorized as positive or negative

Higher than 60% of both nonnursing groups who had experienced a role model reported not being influenced at all by the experience, while only 40% of the nursing group who had experienced a role model reported no influence from a role model. Out of the 53% of the nursing students who reported being influenced by a role model, 8% reported it was a negative influence, yet they still chose nursing as a career! The experience of a nursing role model may have had some effect on the choice of nursing as a career, but not having had one, or having a negative one, did not preclude the choice of nursing as a career among this group.

Instrument Testing

This section presents the results of testing of the tools, the Indiana tool and the Nursing Profession tool.

Internal consistency was determined by use of coefficient alpha on Table 18.

Table 18

Tool Reliability - Cronbach's alpha

Scale	Nonnursing Students	Nursing Students
	r	r
	n=163	n=93
Nursing Profession	.6655	.6297
Nursing Career	.8615	.8050
Ideal Career	.8970	.8563

Findings and Research Questions

Pearson correlations were run on the results from the two tools and then on the two subscales in the Indiana Tool to determine, the relationship between the two tools and, the relationship between the subscales. Table 19 and 20 present the results of the Pearson Correlations in relation to research questions 1, 2 & 3.

1. What is the relationship between the image or perception of nursing and nursing as a career choice among college students and nursing students? The relationship was found to be positive but low for both groups. This relationship was determined by comparing the results of the Nursing Profession tool to the results of part A of the Indiana tool (Nurse Career) using Pearson's product-moment correlation coefficient as the data on both tools is at the interval level.
2. What is the relationship between the image or perception of nursing and an ideal career among nonnursing and nursing students? This relationship was also positive and low for both groups but higher than Nurse Profession and Ideal Career. This was determined by comparing the results of the Nursing Profession tool to part B (Ideal Career) of the Indiana tool.
3. What is the relationship between nursing and nonnursing college students in the perception of nursing as a career and an ideal career? The relationship is again positive. The nursing students correlated Nurse Career and Ideal Career much higher than the nonnursing group. The results of section A (Nurse Career) of the Indiana tool were compared to the results of section B (Ideal Career), again using the Pearson product-moment correlation coefficient as this is interval data.

Table 19

Correlation of Tools & Research Questions 1, 2 & 3

Subscales	Correlation of Coefficient	
	Nonnursing n=163	Nursing n=93
Research Question 1. Nurse Pro:		
Ideal Career	(.3590) p=.000	(.3549) p=.000
Research Question 2. Nurse Pro:		
Nurse Career	(.4002) p=.000	(.4144) p=.000
Research Question 3. Nurse Career:		
Ideal Career	(.4072) p=.000	(.5941) p=.000

To help further analyze the data the means on the subscales are presented in Table 19.

Table 19
Means for nonnursing and nursing for subscales

Groups	Subscales					
	Nurse Profession		Nurse Career		Ideal Career	
	Mean	SD	Mean	SD	Mean	SD
Nonnursing	30.19	11.8	39.01	08.3	32.26	08.7
Nursing	24.77	07.1	37.64	07.0	31.72	06.7
Range Possible	14-56		17-85		17-85	

The means for all 3 subscales are smaller for the nursing group. It is interesting to note how similar the means are for both groups in reference to an ideal career and how they start to spread as the groups are asked questions relating to nursing. The Nurse Profession tool shows the greatest difference between the group means.

Only gender and race exhibited any significant difference in relation to Research Question 4, What is the difference in the image of nursing and nursing as a career choice between demographic groups? This difference appeared only with the Nursing Profession scale and the nonnursing group. The difference in gender cell means, $M=32.59$ $F=28.74$, was small, though significant at $F=4.026$ and $p=.047$, ($df1,148$).

The differences for race, with cell means of 30.50, 25.36 and 36.56 for white, nonHispanic; Black, nonHispanic; and Hispanic respectively, were larger but statistically nonsignificant at $F=2.153$ and $p=.120$, ($df1, 138$).

No differences were found in relation to Research Question 5, What are the differences in the ideal career between demographic groups?

Findings and Factor Analysis

Factor Analysis was run on both tools for the nonnursing and nursing students samples. The analysis identified five factors for the freshmen students and six for the nursing students with eigenvalues greater than 1 on the High School Students Perceptions' of Nursing tool. Five factors were identified for both groups on the Nursing Career subscale of the Indiana tool and four factors were identified on the Ideal Career subscale for both groups. Table 21 presents that data.

Table 21

Eigenvalues of Factors for Subscale

Tool		Nursing	
Factor	Eigen%Variance	Factor	Eigen %Variance
<u>Nursing Profession</u>			
1. prestige	2.84=20.0%	1. flexible	2.70=19.4%
2. power	1.57=11.2%	2. success	1.99=14.2%
3. caring	1.35=09.6%	3. power	1.75=12.5%
4. leader	1.25=08.9%	4. prestige	1.44=10.3%
5. influence	1.06=07.6%	5. leader	1.15=08.2%
		6. caring	1.10= 07.9%
<u>Nurse Career</u>			
1. activity	5.35=31.4%	1. value	4.81=28.3%
2. value	2.07=12.2%	2. knowledge	2.19=12.9%
3. power	1.35=08.0%	3. activity	1.30=07.6%
4. knowledge	1.11=06.6%	4. technical	1.20=07.0%
5. stability	1.06=06.2%	5. safety	1.12=06.6%
<u>Ideal Career</u>			
1. knowledge	6.80=40.0%	1. value	5.80=34.1%
2. power	1.44=08.5%	2. stability	2.60=12.7%
3. stability	1.13=06.6%	3. leader	1.40=08.4%
4. technical	1.06=06.2%	4. technical	1.10=06.2%

Tables 22 through 27 present the item loadings for each of the factors presented in Table 21.

Table 22

Rotated Factor Loadings for Nursing Students and Nursing Profession Tool

N P item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
	Flexible	success	power	prestige	leader	caring
1.Help people	-.05720	-.08757	-.00455	.03778	.02102	.86158*
2.High tech	-.03880	.03889	.00190	.82054*	.01284	.22715
3.Care	.83419*	.00073	.00955	-.09170	.02917	.20460
4.Mge lg. grps.	-.01126	.89626*	.00741	-.00453	.01321	.05320
5.Be a leader	.11925	.03121	.90026*	.02286	-.09647	-.07977
6.Teach	-.04953	-.14169	.10013	.07827	.06023	-.51124*
7.Prest. prof.	.73149*	-.01560	.11629	.22787	.05124	-.06668
8.In demand	.08217	.04790	-.08227	.77142*	.04197	-.27076
9.Free change	.90911*	.03716	-.00928	.03652	.01023	-.12058
10.Executive	.26708	.23434	.37277	.57552*	-.00686	-.12444
11.Design	.05477	-.05161	.09998	.00196	.92259*	-.12543
12.Impact	-.04017	-.04045	.90321*	.00410	.24025	-.04653
13.Cutting edge	.05336	.054343	.00562	.09189	.58214*	.16104
14.Fin. success	.01210	.87191*	.00650	.15790	-.00684	-.00864

Note. * = cutoff point of .5 or above

Table 23

Rotated Factor Loadings for Nursing Students and Nursing Career Tool

NC item	Factor 1 Value	Factor 2 Know	Factor 3 Active	Factor 4 Tech.	Factor 5 Safety
1.Always jobs	-.11095	.22956	.17837	.23923	.42702
2.Use brains	.14716	.52872*	.35659	.36948	.13765
3.Caring	-.07439	.26449	.66249*	.13596	.28058
4.Appreciated	.82725*	.12865	.08696	.04046	.05351
5.Know a lot	.00097	.58259*	.52882*	.12395	-.06350
6.Work hard	-.11771	.47059	.40904	.33337	.05874
7.Make money	.64640*	.06701	-.01330	-.04199	.48369
8.College	.09368	.74985*	.18348	-.01353	.02398
9.Work hands	-.00505	.19955	.21454	.73771*	.15354
10.Safe place	.15616	-.05681	.04128	.04647	.84764*
11.Leaders	.32491	.14147	.63475*	.24025	.02341
12.Decisions	.31301	-.03819	.75330*	.01159	-.00189
13.Busy	-.00096	.25829	.34275	.65359*	.11224
14.Powerful	.62455*	.24877	.22741	-.11044	.22939
15.Gd. grades	.24561	.75827*	-.14780	.18578	.07441
16.Respected	.74535*	-.04590	.12252	.14306	-.23670
17.High tech.	.08490	-.02771	-.07400	.85011*	-.04170

Note. * = cutoff point of .50 or greater

Table 24

Rotated Factor Loadings for Nursing Students and Ideal Career Tool

IC item	Factor 1 Value	Factor 2 Stable	Factor 3 Leader	Factor 4 Technical
1.Have job	.33185	.67952*	.12954	.06002
2.Use brain	.31297	.57744*	.44237	-.11371
3.Care	.40550	.68553*	-.10399	.14489
4.Appreciated	.72865*	.15428	.24601	-.11869
5.Know a lot	.40854	.54057*	.4542	-.05258
6.Work hard	-.17099	.70559*	.32385	.22494
7.Make Money	.79808*	.04714	.06482	.19849
8.College	.18743	.59594*	.24829	-.03163
9.Work hands	-.12597	.41702	-.14746	.71498*
10.Safe place	.71091*	.17732	.08554	-.00083
11.Leader	.15558	.14968	.75112*	.16869
12.Decisions	.29289	.13053	.63185*	-.01168
13.Busy	-.23285	.52823*	.33456	.42150
14.Powerful	.49460*	.03024	.39527	.19387
15.Gd.grades	.10691	.37860	.63028*	-.12802
16.Respect	.73225*	.21659	.26328	-.06456
17.High tech.	.25385	-.10389	.11739	.80020*

Note. * = cutoff point of .50 or greater

Table 25

Rotated Factor Loadings for Nonnursing Students and Nursing Profession Tool

NP item	Factor 1 Prestige	Factor 2 Power	Factor 3 Caring	Factor 4 Leader	Factor 5 Influence
1.Help	.03263	.04443	.80627*	-.10791	-.01422
2.High tech	.59671*	.25307	.21811	.11185	-.06789
3.Care	.16564	.04893	.80000*	.10994	.02441
4.Mge.lg. grps.	.40968	.44371	.14762	-.22098	.21703
5.Leader	.05097	.01489	-.01228	.08276	.83117*
6.Teach	.18295	.17411	-.02684	.76994*	-.08574
7.Prest.prof	.75166*	-.09051	.15900	.11115	.13806
8.In demand	.55937*	-.06394	.05183	.16568	-.26331
9.Free	.53517*	.10083	-.08990	.04225	.13446
10.Executive	.32671	.03002	-.10309	.55119*	.31079
11.Design	-.01248	-.06223	.33004	.47864	.39686
12.Impact	.01842	.63860*	.02542	-.01201	.50868*
13.Cutting edge-	.14728	.67009*	.10229	.39204	-.06492
14.Fin. success	.17259	.80868*	-.02841	.04469	-.07427

Note. * = cutoff point of .50 or greater

Table 26
Rotated Factor Loadings for Nonnursing Students and Nursing Career Tool

NC item	Factor 1 Activity	Factor 2 Value	Factor 3 Power	Factor 4 Know	Factor 5 Stability
1.Have jobs	.24313	.15129	.09869	.04348	.75784*
2.Use brains	.71818*	.04937	.06413	.20037	.19181
3.Caring	.79375*	.31554	.09953	-.16919	-.05828
4.Appreciated	.13894	.73636*	.11273	-.19764	.25622
5.Know a lot	.46066	-.02973	.53299*	.17836	.18844
6.Work hard	.48403	.03068	.38645	.07778	.38223
7.Make money	-.01914	.65541*	.18549	.32571	-.02795
8.College	.16672	.20175	.17824	.78862*	-.13828
9.Hands	.57730*	.07564	-.06916	.53385*	.34299
10.Safe place	.17532	.74721*	.01937	.25015	-.23269
11.Leaders	.31746	.30714	.66765*	.02770	.07940
12.Decisions	.14087	-.00895	.74387*	.31524	.03652
13.Busy	.65362*	-.12802	.35511	.26918	.07444
14.Powerful	-.10071	.44591	.63558*	.05423	.13599
15.Gd.grades	.11934	.15314	.24996	.53537*	.39037
16.Respected	-.00090	.74342*	.06990	.07931	.39193
17.High tech.	.03868	.01545	.25795	.50129*	.42334

Note. * = cutoff point of .50 or greater

Table 27

Rotated Factor Loadings for Nonnursing Students and Ideal Career Tool

IC item	Factor 1 Know	Factor 2 Power	Factor 3 Stability	Factor 4 Technical
1.Have job	.06160	.11770	.74656*	.25041
2.Use brain	.54559*	.15634	.49110	.09168
3.Care	.46237	-.02828	.67752*	-.03488
4.Appreciated	.14660	.46484	.60271*	.07952
5.Know a lot	.28926	.33234	.51777*	.14388
6.Work hard	.75501*	-.02399	.22781	.26772
7.Make money	.03366	.69724*	.30095	.07111
8.College	.51301*	.34801	.29023	-.02918
9.Hands	.24993	-.08551	.19401	.78754*
10.Safe place	.14528	.29555	.68381*	.03623
11.Leader	.43700	.63228*	.22586	-.02983
12.Decisions	.63934*	.42870	.14050	.01662
13.Busy	.79614*	.16797	.02470	.10377
14.Powerful	.19509	.81808*	.06847	.13420
15.Gd. grades	.57730*	.26473	.38267	.11242
16.Respect	.38038	.56865*	.37028	.09232
17.High tech.	.01505	.44585	.07301	.70833*

Note. * = cutoff point of .50 or greater

The nonnursing students identified the most important factor in an ideal and nursing career and the nursing profession as consisting of certain items. They are presented in Table 28.

Table 28

First factor items for nonnursing students on each tool

<u>ideal career</u>		<u>nursing career</u>		<u>nursing profession</u>	
<u>knowledge</u>		<u>activity</u>		<u>prestige</u>	
1. very busy	.80	caring	.79	prestigious	.75
2. work hard	.76	use brain	.72	in demand	.56
3. make decisions	.64	very busy	.65	high tech	.60
4. good grades	.58			career flexibility	.54
5. use brain	.55				

The nursing students identified their most important factor for each category with the statements presented in Table 29.

Table 29

First factor items for nursing students on each tool

<u>ideal career</u>		<u>nurse career</u>		<u>nurse profession</u>	
<u>value</u>		<u>value</u>		<u>flexibility</u>	
1. make money	.80	appreciated	.83	care	.83
2. have respect	.73	have respect.	.75	prestigious	.73
3. be appreciated	.73	make money.	.65	career flexibility	.91
4. safe place	.71	powerful	.63		
5. powerful	.50				

The Kaiser-Meyer-Olkin measure of sampling adequacy was run on both groups to determine if factor analysis was appropriate for these sample sizes. Values less than .50 are unacceptable on the Kaiser-Meyer-Olkin measure of sampling adequacy and indicate sample size is too small for factor analysis. Table 30 presents the data for all three scales, showing all three scales with scores $>.50$, indicating factor analysis was appropriate Table 30

Kaiser-Meyer-Olkin measure of sampling adequacy

Scales	Groups	
	University students	Nursing Students
Nursing Profession	.63	.52
Nursing Career	.80	.75
Ideal Career	.87	.82

Discussion

The discussion will begin with sample, continue through tool reliability and validity and factor analysis and end with the research questions.

Sample

This study examined the image of nursing as a profession, the choice of nursing as a career, and factors which might affect that decision. A convenience sample of two groups of college students was used. The sample consisted of one group of 161 nonnursing students from both the Community College and the University, and another of 93 nursing students from the university.

The analysis of the sample of 161 nonnursing students from both schools showed them to be similar except for the variation one would expect from a community college to a university, such as, a larger percentage of older students and more blue collar occupations for the students and their parents. The results of factor analysis for both the nonnursing groups was also very similar. Thus, it was decided to treat them as one group, nonnursing.

The nonnursing group chose nursing as a future occupation 14.3% of the time. Fifty one percent reported their parents would have a positive opinion of nursing as a career choice. Forty two percent reported a possible positive opinion from their friends and 33% reported the same for their guidance counselors. The low percentage for the counselors may identify a

group that nursing should target for education on the positive aspects of nursing as a career choice. If student counselors express a negative opinion of nursing as a career choice when counseling students it directly impacts on recruitment.

As expected, the nursing group reported much higher percentages for a positive response to nursing as a career choice from their parents (91%), friends (81%) and guidance counselors (86%).

Only 43.5% of the nonnursing group reported having been exposed to a nurse role model while 70% of the nursing group reported having a nurse role model.

64% of the nonnursing group reported a nurse role model had no influence on their choice of nursing as an ideal career while 60% of the nursing group reported a nurse role model did make a difference in their choice, by influencing them to choose nursing as a career.

Grossman, Arnold, Sullivan, Cameron and Munro (1989) studied both the perception of nursing as a career and how nursing role models might influence that choice. They also reported a low percentage of exposure to nursing role models (37.6%) among the high school students they studied. They concluded that the experience of a nursing role model significantly affected the choice of nursing as a career.

Kohler and Edwards (1990) researched high school students' perceptions of nursing as a career choice by examining their beliefs about nurses and nursing. They too concluded that experience with nurse role models could make a difference in recruitment.

The May, Austin, and Champion (1988) study in Indiana examined the perceptions of nursing as a career choice and how that career was similar or different to the ideal career. Although they did not examine role models they also recommended that nurses become more visible. These findings indicate that highly visible nursing role models may make a significant difference in the choice of nursing as a career. The importance of a nurse role model is an area which nursing must address.

In this study 1100 questionnaires were distributed during orientation, during class time and in the student cafeteria during lunch, throughout the summer and early fall. 254 or 23% questionnaires were returned.

The May, Austin, and Champion (1988) study in Indiana was much larger. They sent out 10,000 questionnaires, 1175 or 12% were returned. Their sample consisted of college freshmen, and students in grades 6 through 12 and their enablers (adults who could influence the students in their career decisions), so their sample was also more varied.

The demographics between the two studies were similar in some respects. This study examined only college students, therefore the mean age was

somewhat younger, 18 as opposed to 27. Age ranged from 18 to 74 in this study, in contrast to 11 to 78 in the Indiana study. Race was similar though there were more Hispanics and Asians identified in this study. Gender was very dissimilar. This study reported an almost equal distribution of males and females (49% to 51%), in contrast to 23.3% and 75.5% respectively, in the Indiana study.

The May, Austin, and Champion (1988) study reported their sample demographics were very similar to their population demographics for the state of Indiana (Mid America, with conservative attitudes). This study found similar results with the sample and college population demographics among a more varied group of students from many different states.

Kohler and Edwards (1990) investigated nursing as a career choice among 306 students in grades 9 through 12 from three public high schools. 57% were females, 42% were males, 2% did not identify themselves. The ethnic breakdown for their study consisted of 72% white, 23% black, 2.3% hispanic, 1.3% Asian and 1.63% other. The demographics of the Kohler and Edwards study was similar to this study except that their sample consisted of a higher percentage of blacks and fewer Asians.

Grossman, Arnold, Sullivan, Cameron and Munro (1988) did not describe their sample other than as 300 high school students.

Tool Reliability Analysis

This study combined two tools. One was the two page tool used in the May, Austin, and Champion (1988) study to differentiate between a nursing career and an ideal career. The other was the Nursing Profession tool developed by Grossman, Arnold, Sullivan, Cameron and Munro (1989) to elicit perceptions of nursing as a career and the effect of role models on the choice of nursing as a career. It was decided to use both tools to determine if they extracted similar information from the sample studied, thereby enhancing the validity of the two tools, and also to draw more information from the sample.

The tools are both short so it was felt the combination would not keep anyone from completing the tool. Both tools had been designed to be read and understood by high school students. The majority of the students completed the tools in 15 minutes. The tools are both Likert scales with choice of answers

ranging from the positive to the negative. The Indiana tool consisted of two pages of 17 identical questions. Part A asked questions about nurses, part B asked questions about their ideal career. The Nursing Profession tool consisted of 14 questions about nursing as a career.

Both tools were tested for reliability using the internal consistency method or scale homogeneity to describe how well all the test items measured the same variable. Cronbachs' alpha is the usual method for determining internal consistency reliability, so this test was performed on the two tools for both groups. Part A of the Indiana tool (Nursing Career) produced coefficient alphas of .8615 and .8050 for the nonnursing and nursing groups respectively. Part B (Ideal Career) of the Indiana tool produced coefficient alphas of .8970 and .8563 for the nonnursing and nursing groups respectively. The May, Austin, and Champion (1988) study reported coefficient alphas of .81 for part A and .84 for part B of their tool. Their reliability scores were similar to those of this study. Shelly (1984) recommends a minimum score of .80 as adequate for research although she states .60 is adequate for a scale with few items. Since the scores for this study were not only $> .80$ but higher than those of the Indiana study, the results bolster the reliability of the Indiana tool.

The Nursing Profession tool produced coefficient alphas of .6655 and .6297 for the nonnursing and nursing groups respectively. Grossman, Arnold, Sullivan, Cameron and Munro (1989) reported a coefficient alpha of .7645 for the High School Students' Perception of Nursing tool. The score for this study for the nonnursing students was .6655. This score is not only $< .80$ but it is less than that reported by Grossman, Arnold, Sullivan, Cameron and Munro. These scores indicate this tool is not reliable. Its weakness may be due to the fact that it is a shorter tool with only 14 items.

Examining the factors and the 3 subscales it was apparent that the Nursing Profession subscale did not have as wide a difference between the first and subsequent factors, unlike the other subscales. The difference between the first and second factors on the Nursing Profession subscale for both groups was less than 50% while it was easily over 50% for the other two subscales.

This study found 5 factors on the Nurse Career subscale. These were identified as activity, value, power, knowledge, and stability. The May, Austin, and Champion (1988) study reported finding 3 factors or dimensions on the

Nurse Career scale-they identified these as activity, evaluation and power. Since the May, Austin, and Champion study did not survey nursing students, comparison was only made to data from the nonnursing group of this study. On examination of the factor loadings for both studies, it was found that the factors, activity, value, and power, of this study, resembled the factors, activity, evaluation, and power, of the Indiana study.

This study found 4 factors on the Ideal Career subscale-knowledge, power, stability, and technical. The May, Austin, and Champion study also found 4 factors on the Ideal Career scale-knowledge, power, evaluation and activity. Examination of the factor loadings for both studies again found similarities. Knowledge and power were described in almost exactly the same way in both studies, while stability and technical shared a few descriptors only.

The findings of the factor analysis of this study uphold the findings of the Indiana study even though this sample is less varied, lending strength to the concept of implied causality between nursings' image and its choice as a viable career. These findings confirm content and construct validity for the Indiana tool.

Examination of the means and standard deviations for the three subscales in both the nonnursing and nursing groups revealed smaller means and standard deviations among the nursing group, as would be expected. These findings confirm criterion-related validity via the contrasted groups approach.

Research Questions

Research Question I

1. What is the relationship between the image (perception) of nursing and nursing as a career choice among college students and nursing students ? The relationship was found to be positive but small for both groups. The relationship was determined by comparing the results of the Pearson Correlation for the Nursing Profession subscale and part A (nursing as a career choice) of the Indiana tool.

The nonnursing group had a correlation coefficient of .4002 in comparison to the nursing group's correlation coefficient of .4144. Both were significant at a $p=.000$. The nursing group exhibited a higher correlation than the nonnursing group, however the correlations were both small. The Nursing Profession scale

has fewer items than the Nursing Career subscale, this may account for the lower score. The Nursing Profession scale is also subdivided into 3 sections although the subdivisions do not identify a change in focus for the questions, this may have confused some respondents. Both groups did not correlate these two scales highly although they were both designed to measure nursing as a career choice.

Research Question 2

2. What is the relationship between the image or perception of the nursing profession and an ideal career among nonnursing and nursing students? Again, the relationship was positive but small for both groups. This was determined by comparing the results of the Nursing Profession tool to part B (Ideal Career) of the Indiana tool.

The correlations were even smaller here but interestingly enough, the nursing group had the smaller correlation. The nonnursing group had a correlation coefficient of .3590 and the nursing group a correlation coefficient of .3549, again both were significant at $p=.000$. Neither group correlated an ideal career scale highly with the nursing profession. This reflects the literature and had been expected for the nonnursing group. These lower correlations with the two scales reinforce the assumption that the Nursing Profession tool exhibits weaknesses. The lower score for the nursing student group had not been expected. The nursing students evidently identified even more differences among the two scales than the nonnursing students.

Research Question 3

3. What is the relationship between nursing and nonnursing college students in the perception of nursing as a career and an ideal career? The results of section A (Nurse Career) of the Indiana tool were compared to the results of section B (Ideal Career), again using the Pearson product-moment correlation coefficient as this is interval data.

The correlations here both upheld and contradicted the results of question 2. The nonnursing group produced a correlation coefficient of .4072 for the Nurse Career:Ideal Career scales. The nursing group produced a correlation coefficient of .5941 for the Nurse Career:Ideal Career scales. This difference

was expected. Certainly, one would expect students in nursing programs to equate a nursing career positively with an ideal career, yielding a higher correlation. These findings tend to support construct validity for the Indiana tool.

What is surprising is that even the nursing students did not correlate the two scales more positively. Nursing must offer these students benefits other than those delineated by the Ideal Career scale if they plan to stay in nursing.

The lower correlation coefficient for the nursing students on the Nursing Profession:Ideal Career scales was surprising as the other correlations were consistently higher for the nursing group. Both groups of students found differences between the Nursing Profession and Nurse Career in relation to an Ideal Career. If these two scales did indeed examine the same idea, nursing as a career, both should have had higher correlations. Perhaps, the nursing students were differentiating between what nursing should be and they think it really is.

The fact that the correlations were so different leads to the suspicion that the Nurse Profession and Nurse Career scales do not examine the same idea and should not be used to validate each other.

Factor analysis on both those scales also indicated differences. The nonnursing group identified 5 factors for both scales but the factors were different. Examination of the Nursing Profession scale produced the factors, prestige, power, caring, leadership, and influence. Examination of the Nurse Career scale produced the factors, activity, value, power knowledge, and stability. The only similarity was the choice of power as the third factor on both the scales.

The nursing group also identified different factors on the two scales. Examination of the Nursing Profession scale produced 5 factors-flexibility, success, power, prestige and leadership. Examination of the Nurse Career scale also produced 5 factors-value, knowledge, activity, technical and safety. None of these were similar.

However, examination of the factors produced by both groups on the Nurse Profession scale did produce similarities. The nonnursing group identified prestige, power, caring, leadership, and influence as factors. The nursing group identified flexibility, success, power, prestige and leadership as factors. Both groups identified prestige, power, and leadership as important items on this

scale. This tends to support content validity for the Nursing Profession scale by itself.

Research Question 4.

4. What is the difference in that image or perception of nursing and nursing as a career choice among demographic groups (age, gender, race, major, role model) ?

Anova was run on both the Nursing Profession and the Nurse Career scales for all the demographic groups. No differences were found on the Nurse Career scale. The Nurse Profession scale, however, did generate a small but significant difference in gender. Grossman, Arnold, Sullivan, Cameron, and Munro (1989) also reported a difference between the decision to choose nursing as a career, and gender, among the high school students they surveyed with the Nurse Profession scale. This difference was not apparent on the Nurse Career scale or the Ideal Career scale. Again, the Nurse Profession scale looked at something slightly different than the other two scales. Historically, nursing has been a female dominated profession. Perhaps, in identifying the scale as nurse profession that somehow made a difference in how males and females answered.

Research Question 5

5. What are the differences in the "ideal" career between demographic groups (major, age, gender, role models, race)? The results of section B of the Indiana tool were examined for any significant differences between the demographic groups using ANOVA. No differences were found among the demographic groups in relation to this scale.

Analysis of questions 4 & 5 demonstrated, for this sample, differences in major, age, gender, role models, and race did not significantly affect the perception of nursing as a career.

Factor analysis was run on both the nursing and nonnursing groups for two purposes. The first was to simplify the data and determine if identifiable factors or dimensions existed. These would then be compared to those dimensions reported in the Indiana study. The second purpose was to further explain the similarities and differences between the nursing and nonnursing groups. The

third purpose was to establish construct and criterion-related validity for the tools.

Since the sample size of this study was only 254, the Kaiser-Olkin-Meyer measure of sampling adequacy (SPSS Update, 1981) was run first, to determine if factor analysis was appropriate for this sample. Values of $<.50$ are unacceptable. All the scores were $>.50$. The nursing group, with only 93 subjects, had the lower scores, as expected.

The factor analysis revealed the existence of 4 to 6 factors for each scale for each group. However, each tool displayed only one factor which accounted for a large part (20% or greater) of the variance. None of these factors were exactly the same. The factor analysis also revealed that those factors were different for both nursing and nonnursing students. Tables 23 and 24 presents the item composition for those factors. Item composition was similar for both parts of the Indiana tool for both groups, and for both groups on the Nursing Profession tool.

Using eigenvalues greater than 1 for each factor and a cutoff point of $.50$ for the loading, factor analysis revealed identifiable factors for each scale in both groups. Examination of the nonnursing group responses disclosed 5 factors for the Nurse Profession tool, 5 for the Nurse Career tool, and 4 for the Ideal Career tool.

Examination of the nursing group responses divulged 6 factors for Nurse Profession, 5 for Nurse Career and 4 for Ideal Career. They are presented in order of strength of the eigenvalue.

Nursing Profession Tool

Review of the nonnursing group data revealed 5 factors, prestige, power, caring, leadership and influence. Altogether, these five factors accounted for almost 60% of the variance but the first factor, prestige, seemed to carry the most weight for the nonnursing group. The first factor, prestige, with an eigenvalue of 2.84, accounted for 20% of the variance. The second factor, power, with an eigenvalue of 1.57, accounted for 11.2% of the variance.

Review of the nursing group disclosed an almost similar 6 factors, flexibility, success, power, prestige, leadership and caring. The six identified factors accounted for 72.5% of the variance. The first factor, flexibility, with an eigenvalue of 2.7, accounted for 19.4% of the variance. The second factor,

success, with an eigenvalue of 1.99, accounted for 14.2% of the variance. Though, again, the first factor carried the most weight for the nursing group, the second and third factors also carried a lot of weight.

Nursing Career Tool

Activity, value, power, knowledge, and stability were the 5 factors identified from the nonnursing group on this subscale. Again, though the 5 factors accounted for a total of 64.4% of the variance, one factor, activity, bore the most weight for the nonnursing group on this subscale. Activity, with an eigenvalue of 5.35, accounted for 31.4% of the variance. Value, with an eigenvalue of 2.07, accounted for only 12.2% of the variance.

The 5 factors identified from the nursing group, value, knowledge, activity, technical, and safety, were similar to the nonnursing group. Here, too, although the 5 factors accounted for 62.3% of the variance, the first factor seemed to bear the most weight for the nursing group with this subscale. The first factor, value, with an eigenvalue of 4.81, accounted for 28.3% of the variance. The second factor, knowledge, with an eigenvalue of 2.19, accounted for only 12.9% of the variance.

Ideal Career Tool

Knowledge, power, stability, and technical were the 4 factors identified from the nonnursing group. Though all 4 factors accounted for 61.3%, again, one factor, knowledge, carried the most weight for the nonnursing group. Knowledge, the first factor, with an eigenvalue of 6.8, accounted for 40% of the variance. Power, the second factor, with an eigenvalue of 1.44, accounted for only 8.5% of the variance.

Value, stability, leadership, and technical were the 4 factors identified from the nursing group. Here, too, the 4 factors accounted for a total of 61.4% of the variance, and one factor, value, carried the most weight with the nursing group. Value, the first factor, with an eigenvalue of 5.8, accounted for 34.1% of the variance. Stability, the second factor, with an eigenvalue of 2.6, accounted for only 12.7% of the variance.

Summary

In summary, this chapter has presented the analysis of the samples, the tools, and the findings in relation to factor analysis and the research questions. The analysis showed the experience of a nursing role model, even a negative one, seemed to positively affect the choice of nursing as a career. Working mothers and fathers with white collar occupations predominated in the parents of university nonnursing and nursing students. The Indiana Tool exhibited $>.80$ reliability while the Nursing Profession Tool Exhibited reliabilities of $.67$ and $.63$. The relationship between the image of nursing and an ideal career was found to be positive but small. This tends to reaffirm that the image of nursing as a career is not that of an ideal career. The relationship was higher among the nursing students, as expected. A small but significant difference was found in gender and the choice of nursing as a career but only with the Nursing Profession Tool. It appears the Nursing Profession subscale did not measure the same information as the Nurse Career subscale after all. Factor analysis identified different factors on all three subscales for both groups. Ideal Career factors were similar to Nurse Career factors, however the ranking was different.

Chapter V

CONCLUSIONS

The purpose of this study was to determine the image of nursing among college students.

Chapter I discussed the latest nursing shortage in this country and the implications for both nursing practice and the public, due to this shortage. Material was presented that delineated this shortage as unusual. Though we have many more practicing nurses than ever before, the combination of expanding opportunities for women, widening scope of practice for nurses, higher acuity patients, and increasing technology, to name a few factors, have resulted in an acute shortage that threatens to worsen as time passes.

Betty Neuman's Health Care Systems Model was presented as the framework for the study, with the profession of nursing as the system in danger. Image was defined as a stressor impinging on all the lines of defense of this system. A negative image, then, could seriously affect the strength and viability of this system.

This chapter suggested that the image of nursing could be discovered by examining nursing as a career choice among college students. Five research questions were introduced.

1. What is the relationship between the image (perception) of nursing and nursing as a career choice among college nonnursing students and nursing students?
2. What is the relationship between the image or perception of nursing and an ideal career among college nonnursing students and nursing students ?
3. What is the relationship between college nonnursing and nursing students in the perception of nursing as a career and an ideal career?
4. What is the difference in that image or perception of nursing as a career choice among demographic groups (age, gender, race, major, role model) ?

5. What are the differences in the "ideal" career between demographic groups (age, gender, race, major, role model) ?

The assumption was proffered that the examination of nursing as a career choice would benefit the profession of nursing by illuminating areas of negative and positive image.

Chapter II presented a review of the literature on image in general and then on the image of nursing, particularly in the United States and Great Britain. Studies were found on many aspects of nursing but very little replication or testing of tools was uncovered. Therefore, it was decided to replicate the May, Austin and Champion (1988) study on nursing as a career choice.

Chapter III identified the methodology used in the study. The design of the study was a descriptive survey. Data was collected from a convenience sample of college students, nursing and nonnursing. Two tools, the May, Austin and Champion tool and the High School Students' Perceptions of Nursing tool, were combined to elicit information on the nursing profession as a career, on nursing as a career choice, and on the ideal career.

Chapter IV presented the results of the analysis of the samples, the tools and the findings in relation to the research questions in table form.

This chapter presents the interpretation of the results described in Chapter IV, conclusions reached and any limitations found.

Conclusions

The results of this study indicate that the image of nursing, though positive, does not fare well as a career choice among college students. Unsurprisingly, nursing students correlated nursing with an ideal career more positively than nonnursing students. However, even nursing students did not describe nursing as the perfect ideal career (Table 20). Obviously, more factors go into the choice of nursing as a career than these tools were able to discern. Positive role models and positive reinforcement from family, friends, and counselors seem to be a few factors identified which impacted on that choice for the nursing students. Since these findings were similar to those of the May, Austin, and Champion (1988) study, nursing's image can be verified as a stressor impinging on nursing's flexible lines of defense.

Inspection of the tools verified reliability and validity for the Indiana tool. The Nursing Profession tool displayed low reliability, perhaps due to too few items. The presentation of the tool lends itself to confusion because the items are separated into three sections although the sections are not mutually exclusive.

The data revealed that the Nursing Profession tool and the Nurse Career section of the Indiana tool did not measure the same component and should not be used to validate each other.

Factor analysis produced results similar to those found in the May, Austin, and Champion study. The nonnursing college students expressed many positive statements concerning nursing as a profession but clearly differentiated nursing from the ideal career. These students identified their ideal career as consisting chiefly of knowledge, followed by power, stability, and technical. They identified nurse career as consisting chiefly of activity, followed by value, power, knowledge, and stability. Similar factors, but ranked in a different order. The ranking of these factors, which can be described as intrapersonal, makes a difference in the choice of career.

The data disclosed a positive but low correlation between the nursing profession and nurse career for both nursing and nonnursing students. There was a positive but even lower correlation between the nursing profession and the ideal career for both groups. The nursing profession was identified not only as different but less attractive than either a nurse career or an ideal career. This was an unexpected finding and may be due in part to the different structure of the two tools.

Nurse career and ideal career correlated more strongly for both groups of students but significantly more so for the nursing group, as would be expected.

Implications for practice

The nursing shortage is widespread and expected to worsen in the coming years. The recruitment pool is smaller than it has been in the past. To attract potential nurses the profession must compete much more intensely than ever before. This study supports studies (May, Austin and Champion (1988); Grossman, Arnold, Sullivan, Cameron and Munro(1989); Kohler and Edwards (1990)) which suggest that nurses need to become more visible. Seventy percent of the nursing students identified having had the experience of a

nursing role model. Nurses need to become positive and highly visible role models in all aspects of their practice. Secondary prevention in this area mandates an intensive public relations campaign to educate the public about nursing, capitalizing on the positive aspects of practice.

Nursing must combat the image stressor. Nonnursing students in this study identified four factors important to an ideal career. They are, in order of importance, knowledge, power, stability and technical. The nonnursing students identified five factors for a career in nursing- activity, value, power, knowledge, and stability. Nursing must find ways to make these two career images more congruent. The first three factors identified for the ideal career are the last three factors identified for a career in nursing, so there is already some congruence. Nursing must reach out into the community and into the schools and demonstrate that nursing does indeed possess these factors. Nursing must emphasize that nurses study a varied body of knowledge as other professions do; nurses have power in educating and caring for patients; and nursing is a time honored and stable profession.

Nursing must also target school counselors for special attention. Nursing should contact guidance counselors personally and give them presentations emphasizing the positive aspects of the profession.

Essentially, nursing must institute a public relations campaign to rerank the factors of the nurse career identified by this and the May, Austin, and Champion study so that they more closely resemble those of the ideal career.

Recommendations for further research

Several studies have examined the image of nursing in this country. Surveys of that image among high school and college students, the usual recruitment pool, have shown that though nursing has a positive image it is not ranked highly as an ideal career. This study supports those findings.

Further testing of the High School Students' Perception of Nursing tool should be accomplished to determine if the reliability improves when the tool is used by itself. If it is still low, then items could be added to see if that improves the reliability of the tool.

As changes are instituted by nursing, the public could again be surveyed, perhaps a year later, to determine if the changes are having any effect on the image of nursing in relation to an ideal career.

Further research could be done with nursing students to determine what other factors go into their choice of nursing as a career if nursing is not seen as the ideal career.

Future research could be done with nurses, to examine their image of nursing in relation to time as a practicing nurse. Graduating nurses, and nurses out of school at intervals of 5, 10, etc. years from graduation should be surveyed for their image of the ideal career and nursing as a career. This information could be used for retention of nurses now in the field.

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APPENDIX A: HUMAN SUBJECTS RIGHTS APPLICATION

SUBMIT TO OFFICE OF THE GRADUATE DEAN: Original and 11 copies of the Protocol Form (pp. 1-3) plus one copy of the entire research proposal.

APPENDIX C 74

DATE RECEIVED: _____

LOG # _____

TYPE OF REVIEW

() Expedited

() Regular

FUNDING SOURCE:

() University

() State

() Federal

() Other/None

UNIVERSITY OF NEVADA, LAS VEGAS

PROTOCOL FORM

FOR RESEARCH INVOLVING HUMAN SUBJECTS

INVESTIGATORS: List person principally responsible for the investigation on line a). If principal investigator is a student, list faculty advisor on line b).

Investigator	Department	Phone
a) Diana Mendez	Nursing	451-3186
b) Margaret Louis	Nursing	739-3360
c)		
d)		

UNLV status of Principal Investigator (circle): Faculty/Post-doctoral Graduate /Undergraduate/Other _____

TITLE OF PROJECT Survey of freshmen college students' image of nursing

NAME AND ADDRESS of sponsoring agency or foundation (if other than UNLV) _____

CONTRACT OR GRANT NUMBER (if known) _____

DURATION OF STUDY (Protocols must be renewed annually) _____ Start _____ Conclude _____

TYPE OF SUBMISSION ☒ New ☐ Continuation ☐ Renewal (attach progress report) ☐ Modification ☐ Previous Log # (if any) _____

LOCATION(S) OR FACILITIES where study will take place _____

Date 5/18/89

Diana T. Mendez
Principal Investigator's Signature

Date 5/22/89

Rosemary Witt
Department Chair or Unit Head's
Signature

Date 5/22/89

Margaret Louis
Faculty Advisor's Signature
(if warranted)

SUBJECTS: (Please estimate numbers)

☐ Patients as experimental subjects	☐ Prisoners, incarcerated subjects
☐ Patients as controls	☐ Normal adult volunteers
☐ Minors (under 18)	☐ Persons whose first language is not English.
☒ UNLV students	☒ Other (please specify) <u>Clark County Community College</u> <u>Students</u>
☐ Pregnant women or fetuses	
☐ Mentally disabled	

approx. 200 TOTAL ANTICIPATED SUBJECTS

PROCEDURES: (ATTACH relevant materials, such as questionnaires, interview schedules, written test instruments, etc.)

☒ Survey, questionnaire(s)	☐ Investigational Drug*
☐ Interview: phone/in-person	☐ Approved Drug, New Use*
☐ Medical or other personal records	☐ Investigational Device (attach relevant info)
☐ Filming, taping, recording	☐ Placebo
☐ Observation	☐ Ionizing Radiation (attach CURRENT approval)
☐ Participant observation	☐ Surgery
☐ Anthropological fieldwork	☐ <u>In vitro</u> fertilization
☐ Psychological intervention	☐ Venipuncture
☐ Incomplete disclosure of purpose	☐ Other body fluids, excreta
☐ Payment of subjects	☐ Abortus, placenta, excess tissue
☐ Costs to subject/third parties	☐ Other (please specify)
☐ Brief Explanation of Procedures:	

RESEARCH ABSTRACT

Please describe the study, emphasizing the possible risks to human subjects.
Use the numbering format below. (2-3 pages maximum)

1. SUBJECTS: Indicate efforts that will be made to insure equitable selection. When vulnerable populations are involved, describe why they are necessary. If subjects are to be paid, describe.
2. PURPOSE, METHODS, PROCEDURES: Describe in detail the purpose, research methods, and procedures of the study. You may attach relevant portions of an associated grant or contract proposal.
3. RISKS: Describe any potential risks to the subjects--physical, psychological, social, or legal--and assess the likelihood and seriousness of those risks. If the methods of research create potential risks, describe other methods, if any, that were considered and why they will not be used. Describe procedures--including confidentiality standards for minimizing potential risks.
4. BENEFITS: Describe the anticipated benefits of the research to the individual subjects, to the particular group or class from which the subject population is drawn, and/or to society in general.
5. RISK-BENEFIT RATIO: Assess the relative weights of the study's risks and benefits.
6. COSTS TO SUBJECTS: If the investigation involves the possibility of added expense to the subject or to a third party, such as an insurer--for example, longer hospitalization, extra laboratory tests, travel, time missed from work--indicate how this is justified. Be sure this is mentioned in the consent form.
7. INFORMED CONSENT: Describe the method of obtaining informed consent, the person(s) who will be responsible for obtaining it, and where the informed consent forms will be stored. ATTACH CONSENT FORMS.

UNIVERSITY OF NEVADA, LAS VEGAS
 PROTOCOL FORM APPROVAL SHEET
 FOR RESEARCH INVOLVING HUMAN SUBJECTS

Log Number: _____

Title of Project: Survey of Freshmen College Students' Image of Nursing

Investigator: Diana Mendez - Thesis Advisor: Margaret Louis

After reviewing this proposal, the members of the _____
 Review Committee have indicated below their approval/disapproval of this proposal.

Signature of Committee Members

Approve

Disapprove

<u>Cheryl L. Bowles</u>	<u>X</u>	_____
<u>Mylene Hamanaka</u>	<u>X</u>	_____
<u>Susan Rush Michael</u>	<u>X</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The above named project is hereby approved/disapproved (circle one)

Date: 6-7-89

Cheryl L. Bowles
 Committee Chairman's Signature

1. Subjects: The subjects in this study will be a convenience sample of college freshmen from both U.N.L.V. and Clark County Community College. I will survey students who are in their first semester of college English as this is a class all new students must take. The students will be randomly chosen by using only every other section out of all the English sections.

2. Purpose. Methods. Procedures: The purpose of this study is to determine the public's image of nursing. I will do this by surveying college freshmen attending U.N.L.V. and Clark County Community College. Permission will be obtained from the heads of the English departments at both U.N.L.V. and C.C.C.C.. Initial contact indicates support for the project upon approval from H.S.R. Committee. The four part questionnaire I will use consists of one page of demographic questions, and three pages of statements arranged on a Likert scale. Part I of the questionnaire elicits the subjects' perceptions of the nursing profession, Part II elicits the subjects' perceptions of nurses, Part III elicits the subjects' perceptions of the ideal career, and Part IV is a list of demographic questions. The questionnaires will be distributed to and retrieved from the students at the beginning of class by myself or the instructor.

3. Risks: No risks have been identified with this study. All the questionnaires will be anonymous.

4. Benefits: There is a severe nursing shortage in Clark County and throughout this country. The image of nursing has been identified by some to be one of the reasons for this shortage. The nursing community in Clark County is developing programs to decrease the shortage as are nurses throughout the country. However, we must first determine the image of nurses in those groups who are choosing careers. Once we have that image we can more efficiently target our efforts and money to change, improve or build on that image.

5. Risk-Benefit Ratio: I have determined no risks and only potential benefits to nursing and the community.

6. Costs to Subjects: There will be no costs to the subjects. The questionnaire takes 20 minutes to complete.

7. Informed consent: A cover letter will be included with the questionnaire given to the students. This cover letter describes the study and explains to the students that their participation is voluntary, confidential, anonymous, and will not affect their course grade. The letter also states that completion and return of the questionnaire indicates their

consent to participate in the study. I will store the questionnaires in the⁸⁰
office for Masters students in nursing.

Dear Student;

I am researching the image of nursing and factors which influence this image among college freshmen in Clark County. The attached questionnaire you have been presented with was developed to elicit your image of nursing as a career choice. Part I of the questionnaire elicits your perception of the nursing profession, Part II elicits your perceptions of nurses, Part III elicits your perceptions of the ideal career, and Part IV asks questions about you.

Your participation in this study is voluntary. You are not required to participate and can terminate your participation at any time. Your refusal to participate will have no affect on your course grade. Your responses are anonymous and will be kept confidential. A summary of the outcome of the study will be made available to you upon written request to me at the Nursing Department at U.N.L.V. Completion and return of the questionnaire will indicate your willingness to participate in the study. If you have any questions, you may contact me at the address below.

Thank you for your time,
Diana Mendez, B.S.N. 739-3360
Principal Researcher
M.S.N. student, U.N.L.V.
U.N.L.V. Dept. of Nursing
4505 S. Maryland Parkway
Las Vegas, NV. 89154

APPENDIX B: QUESTIONNAIRE

PART I - NURSING PROFESSION

DIRECTIONS - Below are 14 statements about a career in nursing. For each statement, circle the answer that best describes how you feel about nursing.

Do you think a career in nursing provides the opportunity for one to:

1. Help people live a healthy life?	Yes	Somewhat	No	Unsure
2. Master high tech instrumentation?	Yes	Somewhat	No	Unsure
3. Care for individuals, families, and communities during time of need?	Yes	Somewhat	No	Unsure
4. Manage large groups of people?	Yes	Somewhat	No	Unsure
5. Be a leader in directing and influencing national health policy and legislation?	Yes	Somewhat	No	Unsure

Do you think a career in nursing provides the opportunity for one to:

6. Teach in a college or university?	Yes	Somewhat	No	Unsure
7. Be a member of a prestigious profession?	Yes	Somewhat	No	Unsure
8. Be in demand and sought after?	Yes	Somewhat	No	Unsure
9. Be free to change your career focus during your professional life?	Yes	Somewhat	No	Unsure
10. Be an executive?	Yes	Somewhat	No	Unsure

Do you think a career in nursing provides the opportunity for one to:

11. Design and direct health programs for businesses and athletic organizations?	Yes	Somewhat	No	Unsure
12. Impact on international health care?	Yes	Somewhat	No	Unsure
13. Be on the "cutting edge" of scientific research?	Yes	Somewhat	No	Unsure
14. Achieve financial success?	Yes	Somewhat	No	Unsure

PART II - NURSES

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INSTRUCTIONS - 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.	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

PART III - IDEAL CAREER

INSTRUCTIONS - Below are 17 statements about an ideal career. For each statement circle the answer that best describes how you feel about an ideal career.

1. I will always have a job.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
2. I will use my brain a lot.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
3. I will care for people.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
4. I will be appreciated.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
5. I will know a lot.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
6. I will work very hard.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
7. I will make a lot of money.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
8. I will go to college.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
9. I will work with my hands a lot.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
10. I will work in a safe place.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
11. I will be a leader.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
12. I will make decisions for myself.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
13. I will be very busy.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
14. I will be very powerful.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
15. I will have made good grades.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
16. I will have respect.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
17. I will work with high technology a lot.	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree

PART IV - DEMOGRAPHICS

The following information will help us provide a population profile of everyone who filled out the questionnaires.

Your age _____ State of Permanent Residence _____

How do you describe yourself? Please check on below:

☐ White, not of Hispanic origin	☐ Asian or Pacific Islander
☐ Black, not of Hispanic origin	☐ Other _____
☐ Hispanic	

Sex: ☐ Male
☐ Female

Status: ☐ Freshman ☐ Junior
☐ Sophomore ☐ Senior

Major _____

What occupation are you considering for yourself NOW?

What is your mother's occupation?

What is your father's occupation?

Have you considered nursing as your future occupation?

☐ Yes
☐ No

What would your parents say if you told them you wanted to be a nurse?

☐ Excellent idea	☐ Not a good idea
☐ Good idea	☐ Not at all a good idea
☐ Fair idea	☐ I don't know what they would say

What would your friends say if you told them you wanted to be a nurse?

☐ Excellent idea	☐ Not a good idea
☐ Good idea	☐ Not at all a good idea
☐ Fair idea	☐ I don't know what they would say

What would your guidance counselors say if you told them you wanted to be a nurse?

☐ Excellent idea	☐ Not a good idea
☐ Good idea	☐ Not at all a good idea
☐ Fair idea	☐ I don't know what they would say

Have you been closely involved with someone who is a nurse?

☐ Yes

☐ No

If so, how has this influenced your views on nursing?

THANK YOU FOR YOUR TIME AND COOPERATION IN THIS SURVEY

APPENDIX C: CONSENTS

Sigma Theta Tau, Inc.

INTERNATIONAL HONOR SOCIETY OF NURSING

89

1200 Waterway Boulevard
Indianapolis, IN 46202-2147
317 631 8171

June 20, 1989

Diana Mendez, RN, BSN
5210 Sun Valley Drive
Las Vegas, NV 89122

Dear Ms. Mendez:

I am responding to your request for permission to use the questionnaire developed for Sigma Theta Tau International's study of Attitudes, Values and Beliefs of the Public in Indiana Toward Nursing as a Career: A Study to Enhance Recruitment into Nursing, December 1988. You will survey students at Southern Nevada College using our questionnaire in conjunction with a questionnaire developed by Grossman, Arnold, Sullivan, Cameron and Munro.

Permission is granted to use the questionnaires, and a copy of the adult and student questionnaires are enclosed. We look forward to receiving a report of your study.

Sincerely,

Nell J. Watts

Nell J. Watts
Executive Officer

cc: Angela Barron McBride
Fred May

Divina Grossman, R.N., M.S.N.

5450 SOUTHWEST 98 TERRACE
MIAMI, FLORIDA 33156

TELEPHONE 661-2158

90

January 31, 1989

Ms. Diana Mendez
5210 Sun Valley Drive
Las Vegas, Nevada 89122

Dear Ms. Mendez:

Thank you for your interest in our work. Attached is a copy of our High School Students' Perceptions of Nursing Questionnaire for your use. We have a pending copyright application for this instrument and we expect your acknowledgement of our authorship should you utilize it in any publication or printed material. We are interested in further establishing the reliability of this questionnaire and so we would be grateful if you would share your results with us.

We look forward to hearing from you in the future. Good luck on your project.

Sincerely,

Divina Grossman

Divina Grossman, RN, MSN
Ph.D. Candidate
University of Pennsylvania
School of Nursing

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 and originally published in Nursing Research
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Betty Neuman, R.N., Ph.D.

Date:

1/4/89

Name (typed):

BETTY NEUMAN

Title:

NURSING CONSULTANT

Representing:

INDEPENDENT

The Graduate College
 University of Nevada, Las Vegas
 4505 Maryland Parkway
 Las Vegas, Nevada 89154

APPENDIX D: PICTORIAL REPRESENTATIONS OF THE MODEL

FIGURE 1 - PICTORIAL MODEL OF COMPONENTS OF THE NEUMAN MODEL

Figure 1. The Betty Neuman Model: A Total Person Approach to Viewing Patient Problems. (Neuman, B., 1972)

PICTORIAL REPRESENTATION OF THE NEUMAN'S MODEL